

**Teacher Education Matters:
transforming lives... transforming schools**

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Faculty of Education
1978-2018



L-Università
ta' Malta

Celebrating our Faculty's 40th Anniversary 1978-2018

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The classroom has the elements of the theater, and the observant, self-examining teacher will not need a drama critic to uncover character, plot, and meaning. We are, all of us, the actors trying to find the meaning of the scenes in which we find ourselves. The scripts are not yet fully written, so we must listen with curiosity and great care to the main characters who are, of course, the children.

Vivian Paley (Author, Teacher and Early childhood researcher)

PREFACE

The title of the book - *Teacher Education matters: transforming lives transforming schools* - represents two main beliefs that the Faculty of Education has upheld since its inception and which, we would argue, were already central to teacher education during the days of the teacher training colleges. On the one hand, we have always believed that teachers matter, that teachers are those who ultimately make a difference in peoples' lives. And, secondly, that through our programmes, whether our teacher education programmes or our varied courses at all levels, the intention is one – to improve professional practice in all its facets. Whether one is an education graduate teacher in class, a school leader, an adult educator or a learning support educator, whatever calling one pursues, the Faculty has always endeavoured to ensure that rigorous programmes are provided in order to leave an impact, not only on the course participants as individuals, but also to improve the profession.

The preparation of today's teachers is highly specialised because of the complexity of school life. Continuous professional development is also a must. Providing educators with sound preparation and giving support throughout their career are hallmarks of a sound profession and, over the past forty years the Faculty has endeavoured to nurture its students and to collaborate with stakeholders and employment providers in our field.

This publication aims to celebrate the work of colleagues who are engaged within the Faculty, or who have supported it over the years. The contributions explore our knowledge base, test our theories and enhance our practices. They provide an opportunity to take stock of what the Faculty of Education represents as we go about our daily duties and carry out our research. It is far from comprehensive or representative of the work that has been carried out over the past forty years. However, it provides a noteworthy glimpse into the myriad of activities that we are involved in, together with the educators and the institutions that we serve.

The volume, therefore, includes papers authored by teacher educators who provide insights into teaching methodologies, leadership, language education, ethnicity, diversity and other topics which are very much at heart to the Faculty. They are penned, in most cases, by academics, who through their contribution show their passion for the profession, while expressing their concerns and hopes. The various chapters provide insights into research carried out in diverse areas, while underlining the importance of taking decisions which are evidence-based and which stem from what research tells us in its relation to daily practice in different fields.

Christopher Bezzina and Sandro Caruana

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A special thanks goes to Orsola Mazza who gave of her personal time to make sure that the different contributions were put together. She went through initial drafts of each chapter ensuring that all contributors worked round the deadlines. She was patient, understanding and supportive throughout this journey. Without her this publication would not have been possible.

We would also like to thank Raphael Vella for providing the image for the cover of the publication.

Particular thanks goes to the University of Malta for sponsoring this publication, a publication that we feel honours the work that many of our colleagues engage in to better understand their field of study and help to enlighten practice.

Our collaboration with Gutenberg Press is always a pleasure. The professionalism of the staff and the commitment of the entire organisation to education helped lighten our burdens.

INTRODUCTION

The Faculty of Education is now in its 40th year, after it was established back in 1978. It was a time where teaching was accepted as a profession and when its status was raised through the conferment of a bachelor's degree for those who wished to join it. Over the years some goals in relation to the professionalisation of teaching have been reached; in other cases there is, admittedly, some way to go. Salaries and prospects for improvement, for example, still do not match those enjoyed by other professions. Although such problems are present in other countries they cannot be ignored if we wish to attract more individuals towards the profession. One must bear in mind that as levels of accountability keep increasing, and as the administrative toll on teachers rises, many are expressing the need for more support networks within schools. As revealed by a recent study carried out by Attard Tonna and Calleja (2017) there are signs that teachers themselves view the profession as having become highly stressful, and this may accentuate situations of teacher shortage, especially in particular areas.

Recently, the route to become a teacher locally has been raised to Master's level by the Faculty of Education, following a long process of consultation involving all parties and stakeholders concerned. The Faculty has shown that, despite difficulties and challenges, it is prepared to sustain and nurture this route, through its programmes based on quality education. The model it has embraced is well established in several countries which rank highly where education is concerned, in line with arguments presented by so many researchers and organisations, such as the OECD (e.g. 2011), who have argued that it is wrong to put subsistence strategies ahead of deeper needs. Through the introduction of mentoring for student-teachers there is a shift towards a model where these learn by working alongside and with skilled practitioners. Research on teacher preparation supports these changes. And emerging findings suggest that having student-teachers spend more time in schools raises new teachers' effectiveness.

In these days of high standards – where everyone from doctors to architects, nurses to hairdressers, must undergo a coherent programme of study – short-term solutions are misguided. We believe in sound preparation. A professional programme gives teachers more familiarity with cultural, academic and human diversity. Methodology courses focus mainly, but not exclusively, on pedagogical aspects. Through education studies, student-teachers begin to probe the underlying ecology of learning, teaching and assessment. Without a professional knowledge base, a teacher takes a lot longer to understand how students learn and what and how they need to be taught. The 'demanding agenda' that teachers face in today's world means that they need to acquire competences to teach 21st century skills effectively. Field placement and educational research are two other essential components which have always featured prominently in the history of the Faculty, and which we continue to sustain strongly today.

The Faculty is also well aware of the fact that teacher education cannot cover each and every aspect of a profession as fascinating and challenging as teaching. A university degree in education can only take you so far. It prepares you to be a beginner in a complex world which is always expecting more from every teacher – who, it is worth reminding is not merely a person who imparts knowledge related to a subject, but someone who serves as 'mother' and 'father', as a civic educator, as a good listener, as a promoter of good values and strong attributes. Teachers truly model what it means to be human. Let us not lose sight of that in our discourse of teacher education.

All this implies that we need to constantly work for and alongside educators, at whatever stage of development they are in. This volume is a celebration of some of the work that has been done in order to enlighten our discourse on various aspects of education, to connect passion, knowledge and practice.

The chapters in this book help to present what Sherman (2013) describes as ‘responsiveness’ – sustaining responsiveness to the intellectual and moral core of teacher education. “Responsiveness connotes responding”, argues David Hansen in his Foreword to Sherman’s book (p.vii), which leads to “a positive and potentially lasting influence” (p.vii) as teacher educators develop the dispositions of listening, observing, reflecting, doing, engaging and involving oneself.

This is where modelling what we believe in, what we stand for, becomes so important – whether in the lecture hall, while conducting a tutorial session, visiting prospective teachers in classrooms, holding discussions with teachers and mentors, conducting research, or holding professional development sessions. It is in such environments that we leave an impact.

In the years to come the faculty will continue to strive not only to prepare teachers for their work in local schools, but also for them to be prepared to take on education as a career in any context. Today the Faculty of Education offers various courses, especially at post-graduate level, that serve the profession at different levels. We are proud to have served in the formation of the majority of today’s Maltese educators, wherever they are engaged. One of the many indications of the hard work carried out by the faculty is that practically all qualified educators locally - who serve as education officials, school leaders, teachers and Learning Support Educators - are alumni of the Faculty of Education.

In the midst of all the developments taking place within the profession, locally and internationally, teacher educators play a critical role. What teachers, school leaders, learning support educators do (or do not do) affects the well-being of many, and educators make many unscripted decisions in class every single day. In this context of unprecedented change, educators have to grapple with understanding how to adapt to a changing and fluid landscape.

This publication serves as an opportunity not only to celebrate a number of our achievements through the various studies we present in our volume, but also to reactivate the passion and idealism of the authors and readers, as teacher educators or as persons involved in the profession, who may at times be wondering about the worthiness of her or his work in an era that sometimes accords it little recognition.

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Paul Pace is an Associate Professor, Department of Maths and Science Education and the Director of the Centre for Environmental Education & Research. He has been active in Education for Sustainable Development (ESD) as chairperson of Malta's National Strategy for Education for Sustainable Development and as a researcher at the Faculty of Education, University of Malta where he is a full time Associate Professor in ESD and science education. Appointed Eco-Schools National Coordinator for Nature Trust FEE Malta and the GLOBE (Global Learning and Observations to Benefit the Environment) Programme Country Coordinator, he is the vice-chairperson of the Interdiocesan Commission for the Environment of the Maltese Archdiocese. He is involved in several local and foreign projects aimed at the development of curriculum material for ESD and science. He works actively with teachers in the implementation of sustainability policies in schools.

■ **Suzanne Piscopo**

Suzanne Piscopo is an Associate Professor and Head of the Department of Health, Physical Education and Consumer Studies. She is mainly involved in training and supervising B.Sc. (Hons) Home Economics students, as well as future Home Economics, Primary and Early Childhood educators. Prof Piscopo is a Registered Nutritionist and Registered European Health Promotion Practitioner and regularly participates in school and community projects and research activities around family studies, healthy eating and sustainable consumption.

■ **Lorraine Portelli**

Lorraine Portelli is a Lecturer, Department of Health, Physical Education and Consumer Studies. She obtained a PhD in curriculum history (Home Economics and Textiles Studies) from the University of Brighton. She has been involved in designing the curriculum for Textiles and Fashion in secondary schools. She is also the coordinator for the Textiles, Fashion and Interior Studies specialisation of the BSc (Hons) Home Economics and MA in Vocational Education (Textiles and Fashion). She attended various international conferences on Home Economics, Costume History, History of Fashion and Education, where she presented papers on her research, which includes curriculum history, the teaching of needlecraft during the 19th and 20th century, life history and narrative research, costume history, and vocational education.

■ **Sarah Pulé**

Sarah Pulé is a Lecturer, Department of Technology and Entrepreneurship Education. She received a B.Eng. (Hons.) in Electrical Engineering (1998), a Postgraduate Certificate in Education (1999), and an MPhil in intelligent, neural network control of robots (2005) from the University of Malta. She

obtained her PhD in Design and Technology Education with the University of Loughborough, UK in 2014. She served for one year as a teacher at the Convent of the Sacred Heart School, St. Julian's, teaching Physics, Integrated Science and Information Technology at secondary level. She was employed as a full-time Assistant Lecturer teaching electronics and control systems at the Faculty of Education in 2004 within the Department of Mathematics, Science and Technical Education. Currently Sarah serves at the University of Malta as coordinator of Design and Technology courses and related subjects within the Department of Technology and Entrepreneurship Education, within the Faculty of Education. Her interests lie in educating and disseminating research about technological subjects in education.

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Milosh Raykov is an Associate Professor, Department of Education Studies at the University of Malta. He teaches courses in sociology and research methods in education. He is currently involved in studies of lifelong learning, learning in labour organizations, wellbeing and quality of work life, and the long-term outcomes of community service-learning. His recent publications include *Underemployment and Quality of Life* (2012), *Adult Learning Trends in Canada* (2013), and *The Long-term Outcomes of Community Service-Learning* (2014), *Early School Leaving and Wellbeing in Malta and Beyond* (2015), and *Beyond learning for earning: The long-term outcomes of course-based and immersion service learning* (2018).

■ **Lara Said**

Lara Said is a Lecturer, Department of Early Childhood and Primary Education. She has varied interests within Early and Primary Education ranging from early years' educational effectiveness in numeracy to the initial training and the professional development of teachers/ educators of young children. She has lectured on a number of undergraduate courses and has supervised a good number of student teachers during their dissertation journey. Lara Said completed her Ph.D. in 2013 at the Institute of Education now affiliated with University College London and her undergraduate degree at the University of Malta with the same Faculty of which she is now an academic member. Lara Said served as Chairperson of the Undergraduate Dissertations Committee, a member of the Faculty Research Ethics Committee and a departmental representative on Faculty Board.

■ **Neal Sammut**

Neal Sammut graduated B.Ed.(Hons.) with French and Maltese from the University of Malta and furthered his studies at M.Ed. level at the same institution. He participated in various projects and followed courses related to language teaching, both locally and abroad (France, Belgium and Canada). He has been an active committee member in the Association for French teachers in Malta since 2008. Neal Sammut is currently a teacher of French at St Dorothy's Senior School in Żebbuġ and at the Alliance Française de Malte-Méditerranée.

■ **Stefania Scaglione**

Stefania Scaglione is Associate Professor of Linguistics at the Università per Stranieri di Perugia, where she holds courses on Sociolinguistics and on Language Policy and Linguistic Rights. Her main areas of research include language attrition in migration contexts, sociolinguistics of migration, language policies and education, language legislation and linguistic rights. On these topics she has published *Lingue e diritti umani* (2011, edited with Stefania Giannini), *Migration, Multilingualism and Schooling in Southern Europe* (2013, edited with S. Caruana and L. Copesescu). She has coordinated MERIDIUM (Multilingualism in Europe as a Resource for Immigration - Dialogue Initiative Among the Universities of the Mediterranean), a three-year (2009-2011) network project financed by the European Commission as part of the Life-Long Learning Program (LLLP),

key-action 2 (Languages), aimed at providing active support for the promotion of the European policy of pluri-/multilingualism in Southern European countries.

■ **Alan Scerri**

Fr. Alan Scerri is a member of the Augustinian Order. He occupied the post of Headmaster of St. Augustine College from the year 2000 till 2014. He commenced his Philosophical studies at the Institute for Religious Studies (I.N.S.E.R.M.) in 1978 and later he pursued his theological studies in Rome from where he graduated in Sacred Theology. Fr. Alan Scerri read a Bachelor's degree in Educational Science and a Master's degree in the same field of Pedagogy and Social Communication from the Pontifical Salesian University. He is a visiting Lecturer at both the Faculty of Education and that of Theology on the Master's programme in both Educational leadership and Management and Catholic School Leadership. For a number of years he lectured PGCE and B.Ed. students in Teaching within Catholic schools. Fr. Alan Scerri is a PhD graduate of Lincoln University U.K. in School Leadership and Management focusing on culture and ethos within Catholic Schools. He participates in various conferences both locally and abroad and a number of his works on Ethos, School Culture and Catholic Education have been published.

■ **Doreen Spiteri**

Doreen Spiteri is Associate Professor and Head of the Department of Languages and Humanities, within the Faculty of Education at the University of Malta. Her interests lie mainly in English language pedagogy, teacher education, and testing and assessment. She has lectured, published, and presented in these areas principally in relation to secondary level education. She has also held key roles relating to national English examinations in both the primary and secondary education sectors. At Cardiff University and the University of Liverpool, Doreen Spiteri has taught English for Academic Purposes. Her most recent research focus relates to using corpus linguistics to analyse the language used by student teachers and tutors in self-evaluations and post-observation written feedback.

■ **Carl-Mario Sultana**

Carl-Mario Sultana studied at the University of Malta, reading a BA in Philosophy, Psychology and Sociology, graduating in 1997; between 1998 and 2003, he studied Theology at the Faculty of Theology of the University of Malta graduating SThB in 2001 and SThL in 2003. He pursued further studies at the Salesian Pontifical University in Rome in 2003, where he read a Licentiate in Youth Ministry and Catechetics and a Doctorate in the same area of study, defending his doctoral thesis in 2007. He was appointed Lecturer within the Department of Pastoral Theology, Liturgy and Canon Law, in the Faculty of Theology, University of Malta, in 2008. In 2013, he was appointed a Senior Lecturer and in 2017 he was appointed Head of Department of Pastoral Theology, Liturgy and Canon Law. Carl Mario is also the Archbishop's Delegate for Catechesis and Religious Education of the Archdiocese of Malta.

■ **Ronald G. Sultana**

Ronald G. Sultana is Professor of Educational Sociology and Comparative Education at the University of Malta, where he is a member of the Department of Education Studies, and founding director of the Euro-Mediterranean Centre for Educational Research (EMCER). He studied education in Malta, the UK, New Zealand, and the USA, where he was Fulbright scholar at Stanford University. He has published widely on the linkages between education, development, and the world of work, and focuses on issues of equity and social justice. His research has taken him to several countries in the Mediterranean region and Europe, and he has been involved in projects with such entities as UNESCO, UNICEF, GIZ, the ILO, the Commonwealth Secretariat, and the European Union.

■ **Phyllisienne Vassallo Gauci**

Phyllisienne Vassallo Gauci is a Lecturer, Department of Inclusion and Access to Learning and works at the Migrant Learners' Unit in Malta. She obtained a PhD in Linguistics from the University of Verona, Italy and is a Lecturer at the University of Malta. Her main research interests include second language acquisition, multilingualism, interlanguage pragmatics and teacher education. Besides articles in journals and conference proceedings, in 2012 she co-authored a book on the teaching and development of pragmatic competence for language learners. Her research experience includes work related to the Council of Europe, higher education and curriculum development in various local and international research projects. She is the local representative for the FREPA (Framework of Reference for Pluralistic Approaches to languages and cultures) project within the Council of Europe to which she has contributed through the organisation of national seminars and the creation and divulgation of teaching materials. Since 2016 she is the coordinator of the national campaign for the promotion of foreign languages and multilingualism in Malta.

■ **Raphael Vella**

Raphael Vella is an Associate Professor of Art Education, Department of Arts, Open Communities and Adult Education as well as a practising artist and curator. His research and writing focus mainly on the overlaps between art education and contemporary artistic and curatorial practices, identity, artist-teachers and the Mediterranean. Recent publications include *Artist-Teachers in Context: International Dialogues* (2016). In Malta, he has directed many projects with emerging artists, and in 2017 Raphael co-curated the Malta Pavilion at the Venice Biennale.

■ **Yosanne Vella**

Yosanne Vella is an Associate Professor in History pedagogy, Department of Languages and Humanities in Education. She is a History teacher trainer and she lectures on various topics on History and History teaching. She was the Vice-Chair of the Education and Culture Committee of NGOs at the Council of Europe up to 2014. Yosanne Vella is one of the editors of the online textbook *Historiana* published by Euroclio, the European History Educators' Network, and she is one of Euroclio's ambassadors. She is also on the editorial board of a number of journals including in the *International History Journal of The History Educators' International Research Network* (Heirnet). She has published various books, textbooks, papers and teaching resources on History education, as well as a number of History papers on Maltese history and historiography. Yosanne is the Vice-President of both the Malta History Society and of the Maltese History Teachers' Association.

■ **Kenneth Wain**

Kenneth Wain is Professor at the University of Malta where he served as Head of the Department of Education Studies and Dean of the Faculty of Education, and where he currently teaches philosophy of education and moral and political philosophy. He received his PhD from the University of London, and over the years has published numerous articles in these areas of philosophy in peer-reviewed academic journals as well as several books and chapters in books. He has also authored *Philosophy of Lifelong Education* (Croom Helm, 1987), *The Maltese National Curriculum: a Critical Evaluation* (Mireva, 1991), *Theories of Teaching* (Mireva, 1992), *The Value Crisis: an Introduction to Ethics* (Malta University Press, 1995), *The Learning Society in a Postmodern World* (Peter Lang, 2004), *On Rousseau: An Introduction to his Radical Thinking on Education and Politics* (Sense, 2011), *Democracy Without Confession* (with John Baldacchino) (Allied Publishers, 2013) *Does it Matter who Speaks?* (Malta University Press, 2014), *Between Truth and Freedom: Rousseau and our Contemporary Political and Educational Culture* (2015) (Routledge London/NY). Kenneth Wain was involved in preparing several reports and studies related to the most significant educational reforms and policies in Malta in the 1990s and early 2000s, chairing committees and

policy groups and advising the Ministry of Education. He has attended and presented papers at various conferences over the years, and has also written several articles on educational, political and ethical issues in the popular press and debated on these subjects on the broadcast media.

Section I
**IDENTITY, PROFESSIONALIZATION
AND TOMORROW'S TEACHERS**

Introduction to Section 1

The papers by Faculty members contained in the opening section deal with the broader philosophical issues such as the role of education in society, the meaning of becoming a teacher, teacher identity and initial teacher education.

Appositely, the first paper of this section and the publication starts off with a paper that provides an overview of initial teacher education in Malta, setting the programme in its national context. Sultana, Gellel and Caruana present the various social, economic, political and demographic forces that shaped the development of education and initial teacher education over the years. The authors take us through the changes leading to the 'masterisation' of teacher education across various countries and now ours. The authors also highlight the major challenges that we are currently facing and need to address.

Simone Galea presents us with the challenge of what becoming a teacher truly means and implies. The paper reiterates that when teachers are thought of in terms of fixed characteristics that reflect pre-established standard competences, they cannot become other than what is dictated by an educational economy of the same. The practice of reflection is considered essential to becoming a teacher; a process where teachers critique their own teaching to enhance their professional selves.

The concept 'becoming woman' and its connotations with giving birth to different forms of being draw attention to the unpredictable becoming of the teacher in relation to others. The paper engages the reader to appreciate that engagements lead to transformation. The engagement with others in meaningful endeavours lead to the creation of lived contexts that allow the educator to move to new kinds of thinking and acting.

The paper by Michelle Attard Tonna explores the effects of globalisation on education in relation to the teaching profession. Teacher identity is explored in terms of the role teachers play in a given society and the way specific societies conceive of this identity and adopt criteria to judge teacher success and effectiveness. The paper acknowledges that whilst for some globalisation has been an instrument for progress, creating wealth, expanded opportunities and a nurturing environment for entrepreneurship and enterprise, for others it has exacerbated inequalities and insecurity. Definitely, it brought about fundamental changes to the way societies are formulating educational policy and practice. Whilst presenting specific and concrete implications of how education is changing, and will need to change, in response to these new circumstances Attard Tonna explains how such changes could become more equitable and just. Educators must acknowledge the force of these trends, and see their implications for shaping and constraining the choices available to educational policies and practices, yet resist the rhetoric of 'inevitability' that often drives particular policy prescriptions.

Lara Said's position paper addresses the area of educators working in the Early Years. Her paper is a timely one, as she explores the training, pay and employment conditions. It is argued that the training conditions for the professionalisation of the local early years workforce are already in place. All that is required is the political will to implement this; with due consideration for pay and employment conditions and for the establishing of a clear career path. She argues that not having graduate educators does not respect contemporary values, nor is it consistent with, contemporary attitudes about the rights of children; particularly with regards to children's right

to quality education. The failure of successive governments to recognise that educators of very young children ought to be trained, accepted as professionals with expectations of them that are professional, are in part, a consequence of various policy tensions. Tensions that invariably lead to deep-rooted misunderstandings about the value and importance of play.

Field Placement is a major component of our teacher education programme. Deborah Chetcuti and Michael Buhagiar's paper explores the issues and challenges faced by teacher educators when assessing student-teachers during their field placement. The paper focuses on the formative and summative aspects of the practicum. Drawing on qualitative data from interviews with academics and administrators at the University of Malta, the data from the interviews suggests that finding a balance within a university setting between the formative and summative aspects of assessment can create a potential conflict. This results in teacher educators focusing more on administrative demands for accountability and standards through summative assessment rather than on the learning process through formative assessment. Through this paper the authors challenge this current view and, using examples from good practice, construct a model of assessment for the field placement as a means to improve the balance between formative and summative assessment.

Doreen Spiteri's paper also deals with the practicum as she explores the learning relationship between the teacher educator and the student teacher. This relationship is often mediated through language during the post lesson observation stage. This study explores the types of feedback given and the linguistic choices made by a teacher educator over a span of ten years in the context of pre-service teacher education. This reflection was rendered systematic through the creation of a mini corpus which allowed the exploration of the textual data statistically. Consequently, two areas stand out: firstly, the great usefulness of a corpus that enables analyses otherwise impossible, and secondly the usefulness of reflecting on one's actions and scrutinizing for existing contradictions. The study has shown that the quality of supervisory feedback has improved. If encouraging reflection among student teachers is desirable, then the later feedback reports show that this goal is increasingly being met more effectively through the conscious choice of language that meets that goal.

Victor Martinelli's paper examines the impact of student social background on the literacy competences of entering teacher education candidates. This study found a wide variation in these participants' English language comprehension skills and some association with the type of school attended that could be related to social background.

This study presents some disturbing results suggesting that candidates intending to serve as primary school teachers may lack the competence to lay the foundations for language skills in their pupils. Additionally, based on the candidates' self-reports, the majority of respondents identified a need to develop better reading skills for their academic progress. Various suggestions are presented to address the matter.

Originally published in the *Journal of Philosophy of Education* back in 1994 Kenneth Wain's paper is more than ever relevant. This philosophical piece helps us to appreciate the complexity of teaching and more importantly being an educator in a context fraught with uncertainty, paradox, inhumanity, etc. We need educators who are committed to engaging in society in different fora, through dialogue and debate. This is an important role that the Faculty undertakes and does its utmost to engage with its students through the various components of its programmes on offer and through various other initiatives.

Section I

IDENTITY, PROFESSIONALIZATION AND TOMORROW'S TEACHERS

Initial Teacher Education in Malta: a long and winding road.

Ronald G Sultana, Adrian Gellel and Sandro Caruana

Abstract

This paper provides an overview of initial teacher education in Malta, setting the programme in its national context, and indicating the various social, economic, political and demographic forces that shaped the development of education and ITE over the past. It gives special attention to the most recent reforms, which saw the winding down of a four-year Bachelor of Education Honours course and of a one-year Post Graduate Certificate in Education, and the adoption of a two-year full time Masters in Teaching and Learning programme, thus falling in line with the 'masterisation' of teacher education that has taken place in several countries across Europe and beyond. The future of ITE, including the challenges that need to be overcome, are outlined in the concluding sections of the paper.

Keywords: initial teacher education, Maltese education system, masterisation of teacher education

Introduction

As one of the smallest yet most densely populated nations on earth, and hampered by the lack of natural resources other than its own people, Malta – a member of the European Union since 2004 – has had to struggle over millennia in order to survive and build a sustainable economy that supported its inhabitants. Perched on the southernmost periphery of Europe, at the crossroads of the Mediterranean, the island has been colonized throughout its history by a plethora of regional powers ranging from the Phoenicians, Carthaginians and Romans, down to the Byzantines, Arabs, Normans and other medieval European warlords until the fateful take over by the Knights Hospitallers of St John of Jerusalem – now known as the Knights of Malta – from 1530 to 1798. This was followed by a brief domination by Napoleon and his troops up to 1800, brought to an end by capitulation to British rule right up to 1964.

Considered by many to be too small to stand on its own, independent Malta successfully exploited its position and its strengths in order to build a viable economy that is currently booming thanks partly to the efforts of successive governments in investing in education and training, providing international investors with a pool of suitably qualified workers who can deliver the goods, in some cases at a significantly lower cost than that of their European counterparts. While mass emigration – first to North Africa throughout the 19th century, and then to the Commonwealth in the 20th – was initially the default solution to overpopulation and attendant miserable

conditions of life for many, with as many Maltese abroad as on the island (Attard, 2007), the post-war era saw in education the possibility, for individuals as much as for the country, to climb up the social ladder and out of poverty. Indeed, every education minister to date has made it a point to stress that human capital is the only resource available, and that, despite the recurring hope that oil is found in its territorial waters, Malta can actually only rely on its wit and hard work if it is to maintain and improve its standard of living. It is not a coincidence, therefore, that in several cabinets, including the present one, the Minister of Education is also entrusted with the portfolio for employment. Significantly, in 2016 Malta spent close to 5,4% of its GDP on education, which is slightly above the average spent in EU countries which stood at 4.7% (Eurostat, 2018).

This chapter sets out to provide an overview of various aspects of Malta's social, cultural and economic characteristics, focusing in particular on the role played by education in forging the island's fortunes and identity, and specifically on the initial preparation of teachers in the light of reforms to educational provision aimed towards the country's aspiration that 'all children may succeed' (Ministry of Education, Youth and Employment, 2005).

Contextual background

Geography

Malta is made up of an archipelago of five islands, two of which – Malta and Gozo – are inhabited. Situated 93 kilometres south of Sicily, 284 kilometres east of Tunisia, and 290 kilometres north of Libya, the Republic of Malta extends over 316 km² with a population of 425,500 (31,500 of whom live in Gozo) - which translates into an average of 1,346 persons per square kilometre (NSO, 2014; 2015). The crude birth rate is 9.5%, with a growth rate of .95%. In 2012, Malta registered a 9.1% increase in its population, the second highest population increase among EU member states, of which 7.4% was due to immigration (Malta Independent, 2013) and this trend has not changed over the recent years. In 2016 Malta registered the third highest population increase in the EU, and in 2018, projections indicating further population growth in the near future have prompted the question whether, demographically, Malta is reaching its limit (Grech, 2018).

Peppered with towns and villages which were historically distinct, but which now merge into each other due to the untamed urban sprawl, the island's capital is baroque Valletta, designated as Europe's capital city of culture for 2018, which serves as the seat for government and administration as well as an important commercial, though not residential, hub.

As is typical of other Mediterranean countries, Malta is markedly biseasonal, having long, hot and dry summers, and short, mild winters, with temperatures averaging 15°C (and a minimum of 10°C) in the latter and 35°C (and a maximum of 40°C plus) in the former. The landscape is arid with very little vegetation (in the shape of maquis and garigue in the main), and is characterised by wind-swept low-lying hills and dry valleys, with dramatic cliffs on both islands. Average annual rainfall is a meagre 530mm with as much as 56% of potable water being produced through desalination. Such a challenging natural environment is hard-pressed to provide enough food for its human inhabitants, let alone native fauna. While a range of staple crops is grown, the island can only satisfy 20% of its food needs, and depends on imports for the rest. Goats, sheep, cattle and fowl are reared in limited quantities in small farms, with rabbit being especially prized as Malta's national dish. Small mammals (such as hedgehogs and bats), reptiles (including lizards and harmless snakes), birds (both sea and land based, as well as migratory species) and insects (including a plethora of butterflies) nevertheless manage to thrive in the wild on an astonishingly

diverse and colourful flora – over 1000 species of vascular plants have been identified in Malta (Weber & Kendzior, 2006) – with many small animals finding refuge from the sun in the typical and omnipresent rubble walls that zigzag through the disappearing countryside (Schembri & Sultana, 1989; Mifsud, 2003; Fenech, 2010). While Mediterranean fish-stock has been depleted due to industrial overfishing, a range of fish – including sea bass, swordfish, grouper, amberjack, mullet, and dolphin fish (lampuka) – are seasonal favourites, with awrat (bream) and tuna being grown commercially for export in fish farms.

Demography

Malta has been inhabited since prehistoric times. This is attested by a remarkable series of megalithic temples, which are among the oldest freestanding stone structures on earth, some pre-dating Stonehenge by a full millennium. Many have been accorded UNESCO World Heritage status. Most of these temples, initially dedicated to the goddess of fertility and managed by a peaceful priestly class, were transformed into fortresses by a more warlike race that inhabited the islands during the Bronze Age (Trump & Cilia, 2005). Different layers of architectural heritage bear witness to the diverse groups that lived in Malta and Gozo, with the most important – other than the ancient temples - being Roman remains such as baths and mosaic floors, the old capital city of Mdina, which was radically modified by the Fatimid Arabs during their rule between the 9th and 11th century, the impressive range of fortifications, bastions, churches and civic sites constructed under the aegis of the Knights of St John, and the British colonial-style structures that, from the 19th century onwards, sprouted all over the island to serve as barracks, as residential units for families of military personnel, as hospitals, and as administrative nerve centres serving Britain’s commercial and political interests in the Mediterranean (Said Zammit, 2008).

The fact that Malta’s rulers, from the period of the Knights up to the British, were maritime powers meant that most of the population congregated around the harbour where much of the commerce and opportunities for employment could be found. One half of the population now lives in the towns in the Grand Harbour district (Malta Government Gazette, 2013), with the centre and south of the island being the most densely populated. While traditionally new families aimed to set up home in the same town or village of the bride, nowadays one notes a good deal of residential mobility in response to various push and pull factors, including the search for affordable housing, status aspirations, and proximity to services (Schembri, 2000; Cutajar, 2012). Other processes impacting on mobility ‘gravity’ include ‘residential inversion’ (Boissevain, 1986) - with sections of the middle class moving into restored traditional townhouses in the old hearts of villages, replacing occupants who move to newer housing estates - and the propensity for immigrants to congregate in the same residential area along ethnic and language lines, displacing locals who prefer to move elsewhere, not least because of the impact on property values.

As with other European countries, Malta has an ageing population. The latest Census figures note that a quarter of the total population was over 60 in 2013, and while in 1901 the 0-14 and 65-plus age groups were 34.1% and 5.4% respectively, in 2012 they represented 14.5% and 17.2% (Formosa & Scerri, 2015; National Statistics Office, 2013). Demographic projections foresee an increase of around 72% (circa 111,700 of 60 plus) by 2060, with a concomitant decrease of around 35% in the number of children and youths under 20, representing a decrease from 90,705 to 59,300 (Agius Decelis, 2013). Besides having major implications for government spending on health, such changes in the age pyramid has an impact on the roll out of educational services across the life span.

Social system

Up to quite recently Malta's population was ethnically and religiously homogenous. By far the vast majority were Catholic, a faith that is so deeply engrained in the island that even as Malta becomes more secular, many of its traditions, cultural expressions and life transitions remain strongly marked by religious elements, rituals and symbols, most of which are enacted through a plethora of colourful public manifestations. Feasts in honour of the patron saint of each town and village are celebrated annually with much enthusiasm and devotion. Church attendance, however, has declined steadily, with the latest survey in 2015 indicating that only 40% go to mass on Sundays, down by 10% from 2006 (Chetcuti, 2015), and a telling contrast with the earliest statistic available of 81.9% in 1967 (J. Debono, 2016).

Deep divisions prevail in what has been described by some as a face-to-face society with back-to-back relations. A first major divide is class based, with an élite that has adopted English as its main language of communication, and the rest of the population, which, while often having a degree of proficiency in English, prefers to use Maltese. The latter is considered to be the indigenous language, and merges Arabic/Semitic with Italian/Romance elements (Brincat, 2011). Both English and Maltese are official languages, with the former being privileged in the non-state school sector, particularly by those institutions that are fee-paying. Both are languages of instruction, although the latter gains importance as one progresses along the educational ladder so that proficiency in English can lead to better educational achievement although the mother tongue of the vast majority of students is Maltese. Citizens are expected to be bilingual although, in reality, degrees of proficiency in the two languages vary substantially. Code-switching between Maltese and English is resorted to frequently, often to an extent that leaves one wondering whether some Maltese citizens are fully proficient in either of the two languages (Ministry of Education and Employment/Council of Europe, 2015; Micallef, 2016).

A second major divide in Malta is political. While the island has, of late, seen the rise of a number of small political groupings (Green, extreme Right, and centre Left—none with Parliamentary representation), the heavyweights remain the Nationalist Party (of Christian Democrat persuasion) and the Labour Party (of the New Labour variety), currently in government. The polarisation between the supporters of these two parties is such that it has led some to compare it to that found in racially-divided societies, particularly as one's fortunes depend, at least to some extent, on whether one's party enjoys the majority (Cini, 2002).

Cultural manifestations of social and political distinction obviously reflect deeper material differences. While Malta enjoys a strong welfare state system, introduced by the Labour government in the early 1970s, the gap between the 'haves' and the 'have nots' has increased over the past decades. Schooling and medical care are free, and not only are students not charged any fees for full-time post-compulsory courses they follow but all receive a monthly stipend, irrespective of the socio-economic group they come from. Despite this, however, there are major achievement gaps between those attending state schools compared to those from non-state Catholic schools and fee-paying independent schools. These gaps are reflected in the earning potential of different social groups, with successive surveys estimating that as much as 10% of the population is living below the poverty line (Caritas, 2012, 2016) – a clear sign that the minimum wage is not sufficient when it comes to guaranteeing decent living standards for the families concerned, which is not surprising given that this wage has only been revised in 2017 - with an increase of euro 8 per week by 2019 - after it had remained frozen since 1971. Ministry for the Family and Social Solidarity (2013) estimates suggest that close to 23,000 children are at risk of poverty or social exclusion. This is also true for 1 out of every 5 senior citizens. Overall,

it is calculated that between 2006 and 2012, the number of Maltese persons at risk of poverty went up from 76,000 to 93,783 – an increase of 23.4%. More recent figures indicate that in 2016, the at-risk-of-poverty and social exclusion (AROPE) rate in Malta stood at 20.1%, which is below the euro area average of 23.1%. When compared with 2010, this indicates a drop of 1.1 percentage points. The at-risk-of-poverty (ARP) rate, which measures monetary poverty, has stood consistently below that in the euro area, reaching 16.5% of the population in 2016. Nonetheless, there has been a slow but steady increase in monetary poverty rates over time (Central Bank of Malta, 2018b).

Another key challenge for Malta is the changing composition of its population. Relevant statistics provided by the NSO's Demographic Review (2015) note an increase of 65.8% of non-Maltese nationals between 2005 and 2011, representing 4.8% of the total population. In 2013, of the 23,643 foreign nationals from 150 different countries living in Malta, the total of so-called 'Third Country Nationals' amounted to 11,565 while the corresponding number for EU, EEA and Swiss nationals was 12,078 (Bugre, 2014). Over the past 13 years, more than 20,000 asylum-seekers came to Malta, with an estimated 6,000 remaining on the island (Pisani, 2016). Many arrive after a perilous crossing from Libya, with a peak of 80 boats carrying over 2,500 individuals in 2008, mostly fleeing from conflict in Somalia, Eritrea, Ethiopia and Sudan. While such numbers seem paltry compared to the mass movement of peoples that the world has seen recently due to the conflict in Syria, it should be kept in mind that, as Lutterbeck (2009) points out, 'an inflow of 2,000 immigrants into Malta equates to more than four hundred thousand arriving in Germany', and if geographical scale is taken into account, the equivalent would be 'more than 2 million arriving in Germany, more than 3 million in France, more than 1 million in the UK, and almost 2 million in Italy' (ibid., p.121).

In as much as social problems are concerned, surveys have unsurprisingly noted that immigration is considered to be a major challenge for Malta: a Standard Eurobarometer survey held in Autumn 2013 noted that 63% deem it the most important issue facing the country, with immigration in an erstwhile emigration country sparking negative reactions such that 55% respondents stated that immigrants do not enrich Malta culturally or economically. Durick's (2012) study of the theme of Malta besieged is insightful in this regard. Given the shift in migration patterns across Greece and Turkey into Europe, immigration has featured less highly as a perceived social problem in Malta, being overtaken by concerns about traffic congestion and corruption in an Insight Poll carried out in June 2015 (Times of Malta, 2015). Environmental degradation and income feature as issues of personal concern in the same survey.

Economy

In contrast to several countries across Europe and beyond, Malta was not negatively affected by the 2008 recession. Rather, cautious and conservative banking and investment strategies, coupled with a number of (for Malta) fortuitous events and funding for major infrastructural projects by the EU, have led to a consolidation of the country's assets and an economic boom. The Central Bank of Malta (2018a) indicate that real GDP in 2017 stood at 6.4%. Malta's GDP figures are better than the EU average, though the GDP per capita – at close to €28,000 – remains lower than that of several EU countries, and currently stands at 84% of the EU average, which was projected to reach 97% of the EU average in 2017 (M. Debono, 2016 – citing Eurostat and European Commission data).

The wealth being generated in Malta is due to both endogenous and exogenous factors. Briefly, one should mention [a] the economic restructuring that has taken place over the past several

years, away from manufacturing and from low tech and low-value added enterprises (e.g. clothing industry) to more high-tech and high-value added ventures (e.g. electronic, pharmaceuticals), with aspirations to move into aviation, ICT, life sciences and industrial research and development (M. Debono, 2016); [b] the strong performance of the services industry, which contributed 83.1% of the GDP in 2015 (National Statistics Office, 2016), with income from the tourism sector breaking records year on year due in part to conflicts and instabilities in other Mediterranean destinations, and with its financial services making it one of the EU's most attractive finance centres due to "its agility to create innovative products and capitalising on the skills of its highly-trained workforce" (The Guardian, 2015, cited in Debono, 2016); [c] the growth of ICT-related sectors such as internet gaming and call-centres, which, besides generating income in and of themselves, have a knock-on effect through, for instance, a boom in rental accommodation.

Given such a strong economic performance, unemployment rates are among the lowest in Europe, standing at 1% in February 2018 (National Statistics Office, 2018). One however needs to point out that the public sector is still considered 'bloated' by EU levels, employing as it does 26% of all workers (National Statistics Office, 2016). Female labour participation remains low, despite government incentives such as tax exemptions for married women returning to work, and free childcare to all families in which both parents work. The demand for labour remains high, with the number of foreign workers now totalling close to 27,000, making up 14% of the Maltese labour force, a dramatic increase from 5% only a decade ago (Scicluna, 2016). Another indicator of the demand for labour is the extent of undeclared work, especially in the hospitality and construction sectors, with Malta reputed to have one of the largest shadow economies in Europe, estimated to be about a quarter of the GDP (M. Debono, 2016).

Political system

The beginning of statehood can be traced back to the rise of nation states in Europe in the middle of the 19th century, with a local élite being inspired by the Italian unification to promote notions of national identity centred on cultural resistance to the British (Frendo, 1979; 1999). Due to poverty and indigence of all sorts, local leaders wavered between opting for integration with more powerful states – first with Italy, then with Britain – until the fateful decision was made to take the road to independence (in 1964) and then to Republican status ten years later. Malta remains a member state of the Commonwealth of Nations, was admitted to the United Nations on independence, and to the European Union in 2004. It became part of the Eurozone in 2008, having abandoned the lira for the euro.

Malta's parliamentary system and public administration follow the Westminster model. The unicameral House of Representatives is elected by direct universal suffrage through single transferable vote every five years and is made up of 69 members of parliament. Currently the majority is held by the Labour Party following a long stretch of government by the Nationalist Party from 1987 to 1996, and from 1998 to 2013. Malta's President, whose role as head of state is largely ceremonial, is appointed for a five-year term by a resolution of the House of Representatives carried by a simple majority.

Scale partly explains the ubiquity of politics in everyday life, as does the propensity for clientalism and patronage, in a country with the second highest voter turnout in the world – more than 90% of eligible voters participate in the elections. In an effort to diffuse power from the centre, and to create a buffer and intermediary layer between parliamentarians and citizens, a system of local government was introduced in 1993, with the country divided into five regions, which are themselves divided into a total of 68 local councils. Councillors are elected every five years

as representatives of political parties or as independent candidates, and local councils are responsible for a range of administrative and infrastructural services.

Religion and philosophy

Malta's constitution accords the Roman Catholic Church privileged status, acknowledging its central role over the centuries, and the influential hold it has had over the populace. Key prelates have held important positions across the political, cultural and educational spectrum, and those who governed the islands could only do so with the collaboration, if not consent, of the Church. Freedom of belief is nevertheless provided for in the Constitution. Signs of the weakened position of the Catholic institutional church can be seen not only in dramatic drops in Sunday mass attendance, but also in the introduction of divorce (through a referendum held on 28 May 2011), and of civil union between same-sex partners, including the right of gay parents to adopt children (through a Parliamentary Bill which was approved on 14 April 2014). Abortion remains illegal.

Despite such changes, it could be claimed that most of the Maltese are still culturally Catholic, if of the *à la carte* sort. A recent survey showed that significant numbers of respondents disagreed with the Church on matters related to sexuality, euthanasia, abortion, and a range of doctrinal positions, without, however, necessarily denying their faith: as many as 89% of respondents defined themselves as Catholics (Debono, 2016). Many prefer to send their children to schools run by the Catholic Church. Catholic religion is part of the core national curriculum in state and non-state schools, and it is only recently that the notion of offering 'ethics' as an alternative option has gained legitimacy.

Religious minorities include various forms of Orthodox Christianity, Protestantism (generally limited to British retirees), Evangelical churches, Jehovah Witnesses, and, increasingly, due to the flow of migrants escaping the Syrian crisis, Muslims, whose one mosque and a number of other prayer spaces on the island and school are unable to cater for the estimated 10,000-13,000 plus believers. New age religions, while mostly underground, also seem to have a surprisingly vital presence on the islands, merging Christian symbolism and rituals with neo-pagan cultic reverence to that ancient goddess, mother Earth (Rountree, 2014).

Education System

Beginnings and development of formal education

While there is evidence of some educational provision in Malta in the Middle Ages and the early modern period (Dalli, 2001; Cassar, 2001), and a fledgling university – the Collegium Melitense – that was set up by the Jesuits in 1592 (Fiorini, 2001), formal mass education lagged behind developments in Europe. In 1798, during his six-day stay in Malta after the Knights capitulated to his Egypt-bound troops, Napoleon decreed the setting up of primary schools for boys and girls across the island (Testa, 2001) – something that a local intellectual, Mikiel Anton Vassalli (Ciappara, 2014), inspired by the French Enlightenment, had already proposed two years earlier. A conservative and reactionary elite and an obscurantist church, however, preferred British to French rule, with the former bringing in their particular brand of *laissez-faire* philosophy that allowed the island to mire in ignorance for decades.

The foundations of Malta's formal education system were laid in 1850 with the appointment of a widely travelled and erudite priest as director of education and, eventually, as the first Professor of Pedagogy at the University (Camilleri, 2001). Canon Peter Paul Pullicino was responsible for

the opening of several elementary schools in villages, establishing a national curriculum as well as a system of teacher training that included lectures, practice in a Model School, and travel to different countries in Europe to learn from best practice. Compulsory education, however, took a long time to become a reality, not least because the British tried to use schools to anglicise the colony (Frendo, 1979; Keenan, 1880). As a result, the pro-Italian cultured élites resisted the massification of education, also because this would have entailed the introduction of taxation and challenged the status quo by providing opportunities for social mobility for the popular classes (Sultana, 1992).

The movement in favour of education for all picked up at the turn of the 20th century, with the Compulsory Attendance Act of 1924 making it obligatory for those who started their primary education to complete it. The Compulsory Education Ordinance of 1946 sealed the right and obligation of primary education for all children aged between 6 and 14. Mass secondary education was introduced in 1970, initially on a tripartite model similar to that found in the UK, with subsequent attempts to introduce comprehensive models rarely finding favour with teachers or parents (Zammit Mangion, 1992; Zammit Marmarà, 2001). One of these reforms led to compelling the Catholic Church to remove fees so that all students, whatever their background, had equal opportunity to attend its schools, with access being granted on the basis of a socially neutral lottery system. Radical reforms such as these led to an exodus from state schools such that today, the non-state sector caters for around 40% of all students, divided between 29% attending 56 Church schools (where teacher salaries are paid by the State) and 11% attending 25 fee-paying independent schools. In all, there are 109 schools catering for 8,500 pupils at pre-primary level, 141 primary schools for 27,000 primary students, and 64 secondary schools for 26,000 students. There are in all around 7,500 teachers, 5,750 of whom are female.

Despite several attempts to support economic development through the establishment of vocational schooling, the latter generally remained perceived as a second-class education, attracting mainly students from modest socio-economic backgrounds (Sultana, 1992). Trade schools, somewhat paradoxically launched by a Labour government in 1972, were wound down in the early 1990s. Some consider that this left a vacuum which is now being addressed by introducing a range of vocational subject options in the secondary school curriculum, even though there are few teachers trained to teach such subjects.

Further and higher education was, till the early 1980s, mainly reserved for a small élite, with one University catering for around 600 students, and a vocational college – the Malta College for Arts, Science and Technology (MCAST) – offering pre-degree level certification in a range of technical and vocational areas. After a number of radical university reforms by a left-wing government in the late 1970s and early 1980s, which also introduced a worker-student scheme meant to attract working class students (Mayo, 2012), the University was ‘refounded’ through the 1988 Education Act that encouraged the massification of graduate and post-graduate level studies. MCAST was relaunched as a community college in the year 2001, initially as an alternative to the university, and now increasingly functioning as an alternative university given that many of its courses lead to graduate and even postgraduate degrees.

Aims/objectives of education

The aims and objectives for Malta’s education system are articulated in different documents starting from the latest Education Act of 1988 and its different updates via legal notices, and a range of frameworks and strategies such as the National Curriculum Framework, the National Literacy Strategy for All, A Strategic Plan for the Prevention of Early School Leaving, and the Strategy for

Lifelong Learning. In 2014 the Ministry for Education and Employment launched a Framework for the Education Strategy for Malta 2014-2024 that synthesised the various documents under the overall goal of improving the learners' experiences by encouraging creativity, critical literacy, entrepreneurship and innovation at all levels.

The strategy outlines four broad goals that echo the aspirations articulated in the EU document Education and Training 2020, and sets out [a] to reduce the gaps in educational outcomes between boys and girls and among learners attending different schools; decrease the number of low achievers and raise the bar in literacy, numeracy, and science and technology competence; and increase learner achievement; [b] to support educational achievement of children at risk of poverty and from low socio-economic backgrounds; and reduce the relatively high incidence of early school-leavers; [c] to increase participation in lifelong learning and adult learning; and [d] to raise levels of learner attainment and retention in further, vocational and tertiary education and training.

The government is also proposing a reform called 'My Journey; Achieving through different paths' to be implemented in secondary schools as from 2019. This reform will be accompanied by the introduction of a Learning Outcomes Framework that would replace traditional syllabi. 'My Journey' will also introduce three streams in the local educational system, loosely defined as follows: a 'general' stream, including subjects which have been taught and assessed locally for a number of years; 'vocational' subjects; and 'applied' subjects, based largely on the development of practical skills. The reform, especially the introduction of the vocational and applied streams, is mainly intended to reduce the number of early school leavers.

Education ladder

Pupils' first entry into Malta's educational system is at age 3, where 93% attend public or private kindergartens. Formal compulsory schooling starts at age 5, with students entering the primary school at Year 1 and exiting at age 11 from Year 6. The secondary cycle takes them from Form 1 through middle school and on to senior school where, at age 16, they sit for national examinations in a number of curricular subjects in order to obtain the Secondary Education Certificate (SEC), which is loosely based on the UK's GCSE. Alternative certification is currently being piloted in some subject areas, such as foreign languages, to ensure that underachieving students end up with something to show for their efforts. State primary and secondary schools in Malta are organised in a networked College system, one of the aims of which is to facilitate transitions between the different cycles of education.

Students who do obtain the requisite number of SEC-level passes can then proceed to further general education in state or private Sixth Forms, and after a two year course sit for the Matriculation exam. This is modelled on the International Baccalaureate and consists of two subjects studied at Advanced Level, three subjects at Intermediate Level, and Systems of Knowledge (Sultana, 1998). Students require the Matriculation Certificate to follow courses at one of the 14 faculties at the University, as well as some of the courses offered at the MCAST and the Institute of Tourism Studies (ITS). Students who, on completing compulsory level schooling, do not obtain the SEC or who do not wish to continue their general education studies at the sixth form can join courses at the ITS or at one of the MCAST's six institutes. Many of these courses include apprenticeships and internships in industry, and lead to national awards at different levels of competence, including National and Higher National Diplomas, as well as degrees. In the case of some courses at both the ITS and MCAST, students can transfer to the University to top up their diploma to a degree level qualification. The training of teachers in both vocational

institutions was initially organised by the University's Faculty of Education, but is now offered in-house at the MCAST through a Vocational Teacher Training Unit.

Challenges

Malta's participation in international studies and student assessments such as TIMSS (2007, 2011, 2015), TALIS (2008) PISA (2009+, 2015), PIRLS (2011, 2016), and the European Survey on Language Competences (2011) has served to highlight some of the main challenges that the island's educational system has to face, and to which the Framework for the Education Strategy for Malta 2014-2024 is meant to be a response. The most urgent of these challenges is the serious achievement gap between students attending different types of schools. While all schools implement the same national curriculum, and all mostly employ fully qualified graduate teachers and are well equipped with textbooks and educational resources such as computers and interactive whiteboards, the highest performing students are to be found in the non-state sector, with those in the state schools doing significantly less well in a range of core curricular areas. Educational attainment also varies widely between students in state schools from different localities. Such achievement gaps also manifest themselves in the number of students who do not continue with any form of education and training beyond the compulsory years. In 2017 Malta, in fact, had the highest early school-leaving (ESL) rate across the European Union, involving 18,6% of students, with higher rates for males (21.9%) than females (15.1%) (European Commission, 2017).

Differences in achievement along gender lines are visible in other aspects of schooling. Girls significantly outperformed boys in a number of areas, and Malta has the largest gender gap in reading across all 74 PISA 2009 and PISA 2009+ participants. There is also a statistically significant gender difference in mathematical and scientific literacy, favouring girls. Malta in fact had the largest gender gap in scientific literacy among all PISA 2009 and PISA 2009+ participants.

Other challenges revolve around the issue of inclusion. An aspect of this concerns the effective mainstreaming of students with special education needs, with Malta placing 2,507 out of 2,572 learners with SEN in mainstream schools – one of the highest placement rates in Europe (European Agency for Special Needs and Inclusive Education (2014). While much – in terms of financial and human resources – is dedicated to mainstreaming, through such strategies as reduced student to teacher ratios and the allocation of trained Learning Support Assistants on an almost one-to-one basis, the results have been far from encouraging (European Agency for Special Needs and Inclusive Education, 2014). A related challenge is the integration of foreign students (often referred to as 'migrant learners') in local schools, given that a significant amount of immigrant students (whether EU or Third Country Nationals) do not speak either of the two languages of instruction, i.e. Maltese and English, or only speak one of them. While in 2013, Maltese schools were attended by just over 500 migrant learners, in January 2018 there were 5,744 foreign students in local schools, with the majority of them – 3,835 – in state schools. The Church school sector has relatively few – 132 – with the remaining 1,777 in independent (fee-paying) schools. Of these 3,389 are in primary school and 2,355 in secondary schools (Times of Malta, 2018). The 'super-diverse' condition of such students, mainly due to the different countries from which they originate and their diverse social, ethnic and linguistic backgrounds, represents a challenge to their inclusion in local schools.

Further challenges involve the introduction of a Learning Outcomes Framework, which is meant to shift the focus from input to output, to reform pedagogical practice in ways that cater for the individual and developmental needs of learners, and to tone down the emphasis on examinations. The latter has led to Malta having one of the highest rates of private tuition in the region (Buhagiar & Chetcuti, 2013).

Teacher Education

Beginnings and historical development

As Camilleri (1994) has shown in his overview of the history of teacher training in Malta, the foundation of that enterprise can be traced back to the efforts of Malta's third Director of Primary Schools, Canon P.P. Pullicino who, on taking office, took the radical step of closing down all the extant village schools between October to December 1850, obliging all teachers to follow a crash course at the University of Malta. Pullicino drew on some of the most renowned teaching methods known across Europe at the time, but was mostly influenced by Pestalozzi. Over and above the theoretical courses offered at the University, Pullicino also set up a Model School where teachers could try out their skills under supervision. As more students were enrolled in schools, two Normal Training Schools were set up modelled on similar institutions in Europe, with some of the most promising teachers sent to Catholic Teacher Training Colleges in the UK.

On the whole, however, teacher training remained somewhat basic, with the Malta Union of Teachers – the first trade union to be set up in Malta in 1919 – pushing for the setting up of a proper Training College or the establishment of a training programme in pedagogy at the University. A number of different institutions were set up in the period between the two world wars, including so-called 'Central Schools', 'Higher Central Schools' and 'Practising Schools' that enrolled some of the best achieving students after they finished their compulsory education. Fully fledged teacher training took off the ground with the setting up of two colleges, one for women run by the Sisters of the Sacred Heart, and one for men run by the Christian Brothers of De La Salle. The first courses were offered in 1947, and over the next few years efforts were made to extend the duration of the programme first by one and then by two years (in 1954 and 1971 respectively), and to ensure the proper socialisation and character building of prospective teachers by making the programme residential, as it was believed that communal living would 'develop refinement and social graces and instil that sense of forbearance and understanding which is the hallmark of the gentleman' (Vassallo, 1956, p.1 – as cited in Camilleri, 1994). Courses offered in Malta were externally audited by the London University Institute of Education.

The Labour government elected to office in 1971 was behind the next significant developments in teacher training on the island by removing it from under the aegis of the religious orders and by making the courses non-residential and co-educational under secular administration. The new course was launched in 1973, and set out to have a better balance between demand and supply of teachers for the primary and secondary school sectors, particularly given the recent introduction of secondary education for all. Initially housed within the Malta College of Education, and later (in 1975) as a Department of Education Studies within the Malta College of Arts, Science and Technology, two programmes were offered – a three-year course, and one-year Post-Graduate Certificate in Education. Such developments paved the way for the integration of teacher training into the University in 1978, when a five-year (subsequently reduced to four) degree programme was launched, with all teachers being prepared for both primary and secondary teaching. A one-year PGCE started being offered again from 1990. A reform in 1998 led to deeper specialisation, with student teachers being required to choose between following a route into either early years and primary, or secondary teaching. The first route retained a concurrent nature, while the organisation of the curriculum of the second became increasingly consecutive. As from October 2016, both courses have given way to a Masters in Teaching and Learning, a two-year consecutive programme building on a first degree.

Aims/Objectives

There is a policy vacuum in Malta when it comes to the national regulation of initial teacher education. While the Ministry of Education has two representatives on the Faculty of Education Board that is responsible for the development of policies regarding initial teacher education, the University enjoys practically total autonomy when it comes to making decisions regarding the content of the courses leading to the formal certification of teachers. There are thus few if any policy statements regarding teacher education, other than that prospective teachers need to be qualified by following a recognised teacher training course which, up to 2016, included a four-year concurrent B.Ed.(Hons) course for both primary and secondary school teachers, or a one-year consecutive Post Graduate Certificate in Education (PGCE) course for secondary school teachers. The Ministry is then responsible for granting a warrant to teachers, through the Council for the Teaching Profession, on the basis of their professional qualification, as well as on their performance during their first two years of teaching. The current legislation – known as the Education Act – is going through a reform, also in order to reflect the change referred to earlier whereby teacher education will follow a consecutive model, through a Master’s degree. The public consultation phase of this reform was concluded in October 2016, but in 2018 the proposed new legislation was yet to be published.

The Faculty of Education has nevertheless articulated a clear objective for itself in its vision and mission statement, titled ‘Promoting an Educated Public in a Participatory Democracy’. In that document, the Faculty commits itself to ‘developing and implementing powerful pedagogical practices that foster meaningful learning’, and to promoting the formation of reflective practitioners who also act as transformative intellectuals in the public sphere.

A key objective that the Faculty of Education has set itself in relation to initial teacher education is that of ‘being of service through flexibly responding to evolving and changing educational scenarios locally and abroad, and by developing programmes that effectively engage with the shifting social and cultural landscape in Malta’ (Faculty of Education, Vision and Mission Statement). Regular contacts between the Faculty of Education management team and the Directorates of Education set out to ensure that key concerns of the Ministry are communicated to the Faculty so that the curriculum reflects issues needing attention. This is also done through the development of continued professional development courses, at diploma or post-graduate levels, which respond to specific requirements. A recent development which reinforces the partnership model espoused by the Faculty has been the setting up of a Faculty Consultative Committee that meets representatives from all the main education stakeholders on the island, including the teachers’ union (the Malta Union of Teachers), the Parents’ Association, and the associations representing the church and non- state school sectors, besides the Directorates and leaders of higher education institutions.

Equivalence to other initial teacher training courses offered by overseas universities – also present on the island through outreach programmes in an increasingly diversified education market – is established by the aforementioned Council for the Teaching Profession, which is tasked by law to ‘keep under review and assess education and training standards’ and to also ‘to examine applications for a warrant to practise the teaching profession and to make recommendations to the Minister on the award or refusal thereof’ (Malta House of Representatives, 1988).

Site, programmes, duration

A recent tendency in Malta, which is present in a number of fields, is to have a market for the provision of service for entry into a number of professions. While, initial teacher education for

primary and secondary school teachers remains strongly tied with the Faculty of Education at the University of Malta, in 2015 the government set up an Institute for Education Agency. This Agency will start to offer teacher education courses from October 2018. If these develop as planned they could lead to degrees which would run parallel, and in direct competition, with the two-year Professional Masters in Teaching and Learning (MTL) offered by the Faculty of Education.

The preparation of staff for the early year's sector is covered both by the Faculty of Education through a three-year degree in Early Childhood Education & Care and by the Malta College of Arts, Science and Technology, which takes students up to the Higher National Diploma level. Students of this institution who wish to continue to study towards a degree in Early Childhood Education and Care are able to transfer their credits to the University of Malta and build up on them. There is a plethora of courses available catering for the continued professional development (CPD) of teachers, with foreign universities offering study programmes at all levels, mostly by distance. The newly-founded Institute for Education Agency, with strong links to the Ministry for Education & Employment, is also set to take on a major role in CPD, and the Faculty of Education has also developed a specific post-graduate degree for this purpose.

Access, admission, enrolments, supply/demand

In the B.Ed. (Hons) and PGCE courses, the major emphasis was placed on academic credentials when it came to admission. Students were expected to have good passes in the Matriculation exam, besides being proficient in both Maltese and English and to have obtained the European Computer Driving Licence testifying IT literacy. Efforts to include individual or group interviews prior to acceptance were stymied either due to the fact that large number of applicants made the task impractical, and/or because no consensus could be reached with the faculty as to the predictive validity, and hence usefulness, of such a procedure.

The introduction of the MTL provides an opportunity to strengthen the admission procedures in ways that address the faculty's aspirations to attract the most suitable candidates to the teaching profession. This is mainly based on the fact that those aspiring to become teachers will join a degree course at Master's level, thereby being in possession of a first degree and joining the course at a second phase of their studies, rather than at undergraduate level. Student-teachers are also required to be proficient in both Maltese and English. They also have to submit a police good conduct certificate, and are barred from applying if they are included in the Register established under the Protection of Minors' Act. The Board of the Faculty of Education may require individuals to sit for an interview to assess whether they can follow the course with profit. The number of students admitted to the course is directly related to the availability of human resources and the number of suitable classes available for the field placement component, such that numbers of students that can be accepted for the different subject specialisation area are determined in advance. If the number of eligible applicants exceeds the places available, selection is made on the basis of the strength of the applicants' academic credentials.

Generally speaking, there is no major shortage of teachers in Malta, and indeed there is an oversupply of teachers in some curricular areas at secondary level. There are, however, some indications that shortage could become an issue, especially in some subjects, if the profession is not rendered more attractive – especially in terms of salary and of support given to teachers in schools (Attard Tonna & Calleja, 2018). In the past these teachers were offered a 30-ECTS 'conversion course' in order to qualify to teach in primary schools. Similar courses are being planned for the future. Temporary shortfalls are addressed through the deployment of 'supply teachers'. There are, however, some concerns about the future given that the numbers opting

for a career in teaching has diminished significantly – from 233 in the secondary track in 2011 to 142 in 2015, and from 98 to 31 in the primary and early childhood track for the same years. Although this decrease may also be explained in terms of demographics, attributable to a fall in the birth rate in some of these cohorts, the issue at hand requires thorough investigation as it may represent an indication that teaching is not being perceived as an attractive career. The numbers might decrease even further given that with the masterisation of teacher education the route into the profession is now of five years of study, two of which at post-graduate level.

Curricula

Malta's Faculty of Education ITE programmes include the same ingredients as those offered internationally, though the balance between the different components – namely educational sciences (psychology, philosophy, and sociology), methodology and practicum – are given different weighting in different countries. The new MTL course has kept the same ingredients as the previous B.Ed. (Hons) and PGCE programmes, but gives school-based learning a more central place, and opts for inquiry-driven learning as the main pedagogical approach across the course.

The curriculum components are [a] educational context knowledge – focusing on learners and learning; contexts, conditions and communities of learners; and curricula and pedagogies; [b] themes in education – focusing on current educational issues that research and stakeholders have singled out as being the most pressing, and drawing on interdisciplinary insights across context knowledge and subject methodology; [c] subject methodology – focusing on pedagogical content knowledge and the problematisation of teaching methods and approaches; [d] creating positive learning environments (CPLE) – focusing on the more affective aspects of teaching and learning, on the use of digital technologies in the classroom and on teaching students how to develop favourable instructional, physical and psychological learning environments; [e] a research component and [f] the practicum – which is now to involve school-based teacher mentors who will have followed a 30-ECTS course specially designed for them (Buhagiar & Attard Tonna, 2015).

The delivery of the MTL programme over the two years will follow the schedule set out on page 18.

One of the plans is to extend the MTL both backwards and forwards, i.e. by having optional educational study units offered to prospective teachers while doing their first, content-oriented degree, and by having a closer synergy with the mentoring system organised by the Directorates of Education during the first two years of induction of new qualified teachers. The MTL will also be offered on a part-time basis – with the same curriculum extended over three years. While this is initially intended to address VET subjects, in the future it may be offered in other subject areas too.

Methods and teacher education educators

A range of teaching and assessment methods are used in initial teacher education courses, such that while formal lecturing is common, especially with larger groups of students, a conscious and deliberate effort is made to expose prospective teachers to as many pedagogical strategies as possible, thus modelling the kind of behaviours that faculty wishes to encourage in schools. The overarching pedagogical approach that is planned for the MTL is inquiry-based learning, which coincides with the skills and dispositions that the country's lifelong learning strategy wishes to promote. Distance learning, however, is still in its infancy, though the University has invested heavily in providing an appropriate infrastructure, and relevant expertise is available in the faculty. Some aspects of CPD and of the course for teacher mentors, though not of ITE, are

YEAR 1		YEAR 2	
Study unit	Semester/Year	Study Unit	Semester/Year
Pedagogic Content Knowledge/Subject Methodology (20 ECTS)	10 ECTS Semester 1 10 ECTS Semester 2	Pedagogic Content Knowledge/Subject Methodology (20 ECTS)	15 ECTS Semester 1 5 ECTS Semester 2
Themes in Education (5 ECTS)	Throughout the year	Themes in Education (5 ECTS)	Throughout the year
Educational Context Knowledge (10 ECTS)	5 ECTS Semester 1 5 ECTS Semester 2	Educational Context Knowledge (5 ECTS)	5 ECTS Semester 1
Research Component A – Preparing for the dissertation (10 ECTS)	Throughout the year		
Creating Positive Learning Environments (5 ECTS)	Throughout the year		
Field Placement (10 ECTS)	Throughout the year	Field Placement (10 ECTS)	Throughout the year
		Research Component B – The dissertation (20 ECTS)	Throughout the year

delivered online. Some hours of distance learning in ITE will be introduced in 2018, especially because of the move to offer the MTL in part-time modality.

Practically all the 60-plus full-time teacher educators in the Faculty started their careers as teachers in primary and/or secondary schools, and went on to read for a PhD overseas, mainly at British universities. Experienced teachers with postgraduate degrees are also regularly employed on a part-time basis in order to lead tutorials, and to support staff with the supervision and evaluation of the practicum. A recurrent issue is the extent to which student-teachers – not

to mention the Ministry and Directorates – consider that faculty staff have remained close to schools and classrooms, given that much of their work is university based. Several members of staff however actually spend a great deal of time in schools researching, as well as working with teachers on projects.

Field Placement

The practicum proper – i.e. actual placement in schools to practice teaching under the supervision of faculty staff and mentors – is allocated 20 ECTS from a total of 120 ECTS that make up the MTL. This entails a block Practicum, of 5 weeks duration each, in the second semester of the first and second year of the course. Prior to the block Practicum student teachers will be engaged in schools and communities twice weekly where they will carry out observation sessions and will engage with specific themes and issues. Their observation and reflections will be discussed in groups with the support of related literature and research.

Over and above this, however, the faculty has identified several ways that aim to “put the class in the lecture room, and the lecture room in the class”, so that students are encouraged to engage more productively with the theory/practice dialectic. This will include the use of case studies, dilemma-based teaching, teacher narratives, microteaching, visual material (e.g. TALIS and TIMSS video banks), e-portfolios and reflective journals, critical narratives, auto-ethnography, action research and so on. All these should extend and enrich the actual practicum experience, increasing the opportunities for learning from school contexts in a variety of ways.

Challenges

The Faculty has invested a great deal of energy to reform its teacher education course and bring it in line with some of the most successful programmes internationally, taking into account, for instance, the characteristics identified by Darling-Hammond (2013). The aspiration is to prepare teachers in ways that support the national effort to reform education so that the achievement gap is narrowed if not totally removed, and that all citizens are equipped with the knowledge, skills and dispositions that make the country needs in the 21st century. Implementation, however, is another matter, and the challenges are both from within the faculty as much as they are from outside of it. As implementation literature shows, it is far easier to change the way one talks about practice than to actually change the way one normally goes about one’s work. Faculty staff is faced with the challenge of being more school-based than office-based; of modelling, through the way they teach, assess and behave, the way that they would like future teachers to act in their classrooms; of putting inquiry and research at the heart of their profession; and of ensuring that there is a productive interplay between theory and practice.

External challenges to the Faculty’s ITE programme include a growing market of training services where quality is not necessarily always the prime consideration, and where government might be tempted to go for quick fixes rather than maintain standards. The rapid pace of reforms – including the introduction of vocational subjects at secondary school level, the shift to co-educational settings at the same level, the implementation of a Learning Outcomes Framework, the catering for classrooms which are increasingly diverse in cultures and faiths – require the faculty to update its programmes and to develop new skills if it is not to be left lagging behind. A five-year programme, if not accompanied by measures which support and give adequate recognition to teachers, might reduce the attraction of teaching as a profession, which is already waning given the rapid pace of social change and the problems this creates for schools, reform-fatigue (Borg & Giordmaina, 2012), and stagnant salaries. Significant disagreement in the approach to education between the Ministry and the Faculty (e.g. in relation to pull-out programmes meant to facilitate

teaching in the mainstream) could lead to situations where the faculty prepares teachers for schools that it would like to see, rather than the schools that exist.

Conclusion

Despite these and many other challenges, however, initial teacher education in Malta is as keen as ever to take up the gauntlet and to support the national project of improving education for all. Harkening back to the first major promoter of teacher training in 19th century Malta, Pullicino's words regarding what should motivate teachers and those who prepare them to exercise their profession are as relevant today as they were then. Pullicino dreamt of a school as a place where both teacher and taught find themselves contented: the teacher happy with the harmony which such an organisation produces to communicate knowledge and his [sic.] feelings; the pupils happy with the satisfaction they experience in finding themselves, due to the same organisation, being guided on a smooth road and not a difficult one for the acquisition of knowledge and virtue. In this way, that mutual happiness will generate the will to work; both teachers and students will find themselves urged to higher studies and to more exacting efforts at school; and, in a short while, the school will come to that state when it will send forth a number of youths, intelligent and industrious, who, with the labour of their hands, will increase production of wealth, and later honourably manage the fruits of their labour to increase their own prosperity and that of the state (cited in Zammit Mangion, 1999, p.7).

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Section I

IDENTITY, PROFESSIONALIZATION AND TOMORROW'S TEACHERS

Teachers 'Becoming Woman'. Beyond the Competences Approach in Becoming a Teacher.

Simone Galea

Abstract

The paper builds on critiques of the competences approach in teacher education to argue that this approach does not give sufficient attention to the living and relational contexts in which teaching occurs. The paper reiterates that when teachers are thought of in terms of fixed characteristics that reflect pre-established standard competences, they cannot become other than what is dictated by an educational economy of the same. The practice of reflection is considered as essential to becoming a teacher; a process where teachers critique their own teaching to enhance their professional selves. Nevertheless, if their reflective practices simply reflect a pre-established inert set of competences that rigidly determine what is expected of them, they fall short of exploring who they could become in relation to their living contexts. The concept of 'becoming woman' (Deleuze & Guattari, 1987) which is philosophically conceived as becoming other to standardised concepts of being human, can offer other ways of exploring more active processes of becoming a teacher. The paper suggests that the 'becoming woman of teachers' gives birth to multiple possibilities of conceiving teachers through the very educational relations they responsibly engage in. The concept 'becoming woman' and its connotations with giving birth to different forms of being draw attention to the unpredictable becoming of the teacher in relation to others.

Keywords: becoming woman, becoming teacher, relations, teacher education, birth

Towards the Competent Teacher

Teacher education has become increasingly inclined towards a performance based approach in developing teachers' skills, knowledge and attitudes and in assessing teachers' through standards of competence. This approach had emerged in the 1970s and gained some importance in the 1980s (Whitty & Wilmott, 1991) responding to the need to publicly certify the competent teacher. In spite of being critiqued for its behaviouristic, performative, technicist tendencies (Blake et al., 1988; Sultana, 2009; Winch, 2012) the focus on teacher competences has been reviving, particularly in European knowledge-based economies. Discourses of teacher education in Europe (EU Commission, 2005, 2013) as other professional bodies for the accreditation of teacher preparation institutions (see for example NCATE, 2008) are deeply couched with the language of competency and performativity. These contend that there needs to be a consensus about the knowledge, skills and attitudes that educators are to have and that these are essential to ensure effectiveness in their learning and that of their students. Consensus about teacher competences are also considered to be important "to measure an institution's effectiveness according to the profession's expectations for high quality teacher preparation" (NCATE, 2008, p.9). Competences provide standards; stable

points of reference that shape teachers self-development. The standardisation of competences in Europe is grounded in the policy of tuning educational structures which serves processes of alignment in higher teacher educational institutions and the streamlining of study periods into compatible and comparable levels and cycles. (see Tuning Educational Structures in Europe project 2000 (<http://www.tuning.unideusto.org/tuningeu/> accessed 17/5/2010). This has led to a creation of “universal” measures to evaluate, accredit teachers at particular stages of their professional development as well as to gauge their employability within an increasing market-driven economy (Mayo, 2009). It is assumed that in conceiving the ideal competences of teachers, their “education” would be a relatively simple exercise of developing them toward these specific ends.

“The overarching priority is for countries to have in place a clear and concise statement of what teachers are expected to know and be able to do. This is necessary to provide the framework to guide initial teacher education, teacher certification, teachers’ ongoing professional development and career advancement and to assess the extent to which these different elements are being effective.” (OECD, 2004, p.7)

Although improving teacher quality is an important aspect in the educational endeavour of ensuring students’ entitlement for quality education, this paper argues that competences based approach to becoming a teacher is a mechanism of control that determines the way teachers conceive themselves as teachers. Their educational trajectories cannot be regulated by fixed points of reference as they hinder innovative explorations of becoming a teacher. Teachers need to develop their own meanings in being a teacher, also as these constantly change according to socio-cultural, historical, political and personal contexts. Most importantly, the meanings of being a teacher are in constant formation through relations teachers have with others and their critical engagement with teaching situations that give importance to developing themselves in relation to others. Teachers currently live in a context of rapid cultural and economic changes and are expected to reflect and even bring about these changes. However, the social changes they are involved in are frequently politically premeditated also through their own educational processes which are highly regulated through the language of competences, imposed by standards of knowledge and practice (Buchberger, Campos, Kallos & Stephenson, 2000). Discourses of teacher education and development also ambivalently intertwine notions of change with notions of stability.

The emergence of the language of standards and competences for example coincides with emerging discourses of improvement in the preparation of teachers. The formulation of competences is a strategic way through which the uncertainties of change surrounding teaching and the teaching profession are controlled. Teacher education is embedded in the very same rapid changes of educational systems in neoliberal contexts that support the mobility of capital and particularly human capital. Contradictorily however, the means through which teachers are able to move between countries or between levels of their development, are replications of fixed characteristics of what a teacher should be. Teachers’ movements and change are acceptable if certain blueprints are followed.

One relevant document that exemplifies this trend is the Common European Principles for Teacher Competences and Qualifications (2005). It starts off by defining teachers “as key players in how education systems evolve” and assigning them the “vital role in advancing human potential and human generations.” The teacher is described as actively involved in educational evolutions but herself also in need of evolving herself along the continuous rapid changes demanded of a knowledge society. Here the evolution of teachers is conceived as more adaptive to contexts rather than creative of the contexts that can engender their transformative process of

becoming. Particular discourses of lifelong learning that inform this document similarly regulate the processes of becoming a teacher. Practices of lifelong professional development are at the same time straight-jacketed through officially established cycles towards the economically and culturally ideal “European teacher”. Erica McWilliam (2002) explains that documents such as these act as prescriptive texts, constructing teachers as always in need of updating their selves so that their development becomes a stable point of reference throughout their lives.

This development is highly regulated through the language of competences which have now also penetrated conceptions of lifelong learning. The regulative function of teacher competences and performance standards is not limited to the pre-service phase of the cycle but is extended to the other phases of their professional development; “there needs to be a clear set of expectations about teachers’ own responsibilities for their on-going development and a structure to facilitate their growth.” (OECD, 2004, p.7)

Teachers are sentenced to learning for life. (McWilliam, 2002). The lifelong obligation to learn to become good teachers generally involves deciphering ready-made, top-down models of teaching. As Darling Hammond (2005) points out, teachers have had little power to shape the very competences that identify them; it has generally necessitated a consensual agreement on what a teacher should be in the name of professionalism. One acknowledges that being part of the profession necessitates that one learns socially, culturally and professionally acceptable ways of being a teacher. The problem with standardising competences and characteristics for the teacher is that it usually takes up a universal, supreme and absolute objective tone that becomes difficult to question. Since the identification of the good teacher has become an essential exercise that gives status to the profession (Darling Hammond & Bransford, 2005) challenging what has become established as the “Truth” about the teacher might put teachers in an outsider position. These standardised conceptions of the teacher function as logos i.e. as representations of ideal forms of being a teacher that assume superior epistemological ground and to which teachers are obliged to aspire to. Teacher competences become logocentric when they partake of a centralised system that controls the concepts and normalises the processes of becoming a teacher.

Teacher competences may be useful in qualifying and socialising teachers (Peters & Biesta, 2009) yet they cannot be considered educational in terms opening possibilities for teachers for other ways to be. They submit teachers to an “economy of the same” (Irigaray, 1985) which reduces all that is different to dictates by set standards.

This can be attributed to a theoretical shift from the idea of lifelong education and the learning society to that of lifelong learning and the knowledge society (Wain, 2004). The latter understanding of the continuous development of persons including teachers, is not informed by concepts of education that encourage the “flourishing of societies and their members” (Wain, 2004, p.224). The deeply technocratic, managerialistic concerns with the control of knowledge and human resources discourages explorations of other ways of becoming a teacher. The question is how teachers can strategically make use of teacher competences and standardised forms of being within their own teaching locations to give birth to different teaching selves. The “becoming woman” (Deleuze & Guattari, 1987) of the teacher can bring to light different conceptions of the teacher that do not simplistically replicate existent ways of life.

Reflecting Teacher Competences

One main problem with teacher education programmes is that they ignore the ontological aspects of becoming professional teachers (Dell’Alba, 2009).

In reflecting *who* they are, rather than solely what they are, what they should know and do, teachers open possibilities for themselves in thinking differently about being teachers. Becoming a reflective teacher, one who is able to think about teaching within the micro spheres of the class and understanding it as embedded within larger socio economic context, is an important way of challenging the supremacy competences-based approaches described above. (Carr, 1995; Carr & Kemmis, 1986).

The practice of reflection is considered a crucial aspect in the education of teachers in that they become aware and critical of “ways of being in which the individual is not simply a ‘specimen’ of a more encompassing order.” (Biesta, 2009, p.99). The notion of becoming reflective and becoming critical developed during the last decades proposes that teachers’ own self-formations are intertwined with their enhanced commitment in teaching praxis based on the values of social justice and equity in education (Parker, 1997). These politically committed actions however have become more complex in the light of developments in the field that advocate the use of standards in determining teachers’ dispositions to act in a socially just manner (Villegas, 2007). The idea that teachers should have the competence or disposition for social justice and that their commitment to implement socially just practices could be measured demonstrates the pervasive effects of the standardisations of education for the purpose of measuring it. It points to the extent to which the language of performativity has infiltrated the very educational paradigms that have critiqued and struggled to combat it.

Considering reflection in teaching as a competence has produced similar accounts. The insistence on teachers and student-teachers to become reflective is aimed to challenge the regimentation of teachers within strict boundaries of teaching and learning. However, attempts at measuring the extent to which teachers are reflective, work against this aim as they cannot seriously take into account the various complex relations of teaching. As I argued elsewhere (Galea, 2012) teachers’ practice of reflection cannot simply aim to ‘reflect’ some standard form of being. Teachers themselves need to be critical of the language of competence in which they are immersed and seek to conceptualise their own selves beyond existing standards.

As A reflective practice that seeks to adhere to what is professionally prescribed without allowing teachers to deeply question its implications for their particular situations is a disciplinary mechanism that prevents them from becoming actively professional. (Fendler, 2003). Reflection cannot be conceived as another skill to be mastered, another attitude to be fostered, another competence to be assessed but an enriching opportunity to challenge inert competences as active professionals. In this manner teachers explore their becomings in relation to others and to their teaching contexts to expand their praxis. (Galea, 2009).

This is easier said than done. Teachers realise that competences are markers that qualify and socialise them into the profession. Challenge the very standards that define them is risky. Teachers might be difficult to speak new languages of teaching that are not grounded within existing competence because this entails the very subversion of the language that denotes them as professionals. For how can teachers be against becoming recognised as competent? And how can anyone argue against the development of competent teachers?

Mono-sexual Educational Cultures

Teachers’ struggles with using competences as a base for their educational becomings reflect similar issues rising from humanistic educational traditions that seek to develop persons along particular definitions of what it is to be human (Usher & Edwards, 1994). Postmodern thoughts

explain how ideals of being human are embedded in the particular Westernised narrative of the Enlightenment (Nicholson, 1990; Benhabib, 2005). These have been used to identify those who do not fit into the description of these ideals, as lesser subjects. The fact that these ideals are metaphorically and literally man-made products of a particular culture at a particular period of time has also been highlighted by feminist philosophers.

Irigaray (1974,1977) and Spivak (1993) in particular have argued that woman has been largely understood as “Other” to standard modes of being human, especially because these standards have been largely set up by masculinised systems of thought that exclude other forms of thinking (Lloyd, 1983).

These philosophical critiques have two particular aspects that are relevant to my critique of the competences approach in becoming a teacher. First, concepts of being human such as those rising from the Enlightenment, are in fact socially, culturally, historically dominant forms of thought that have suppressed the possibility of expressing other ways of becoming human (Foucault, 1984). Standard concepts of being teacher similarly take up this universalising function to rigidly determine what a teacher is or should be. Secondly, such discourses reflect a rational masculinised human subject that does not allow women, or anyone else who does not fall within its rationality, to be recognised as fully human.

Such mono-sexual patriarchal regimes of thought are reflected in the traditional philosophical thought about education. The history of (and by) woman educators for example, describes how they have become implicated in educational systems that do not allow them to become other to the standardised ways by which they are defined. From the late nineteenth century onwards women teachers have increased in number yet they were conceived through the phallogocentric and essentialised definition of the feminine that were deemed useful for specific educational objectives (Jones,1990). Many studies (see Steedman, 1987; Grumet,1998; Boler,1999; Galea, 2002, 2005) describe how the good woman teacher became more or less a reflection of the masculinised version show how of the good caring docile woman; one who obeys, who diligently and dutifully reproduces the social and the cultural, and performs the essential maternal characteristics in caringly relating to others.

As Grumet argues, “The feminisation of teaching became a form of denial as the female teacher in the common schools demanded order in the name of sweetness, citizenship in the name of silence and asexuality in the name of manners.” (Grumet, 1998, p.44)

In spite of the fact that the feminised aspect of the profession has also been very much controlled in terms of constructing good teachers as essentially good women (Steedman, 1987), there are other feminist readings of the ambivalent power implications of the feminisation of the profession. Tamboukou (2003) argues that teachers, irrespective of them being men or women, use the pedagogies of caring as an anti-paradigm to the technocratic rationale of an educational system that manages teachers “into a ‘bundle of competences’- discrete skills which constitute the teacher as a ‘competent technician’.” (Tamboukou, 2003, p.14) Women teachers at times use their maternal caring connotations to go beyond the strict essentialist configurations of being good teachers, good women and good mothers. Griffiths (2006) argues that the feminisation of the practice of teaching can be a useful space where teachers, men and women can challenge phallogocentric practices of teaching that do not allow teachers to manifest their difference. She argues for a feminised embodied teaching practice that is more “fluid, flexible and non-hierarchical” (Griffiths, 2006, p.396); one which resists the dominant language of competence

that coerce teachers into singular forms of becoming. These are practices that share the practice of subverting systems that conceive human beings as if they were one, of challenging the standard established characteristics of being human.

Becoming Woman

Teachers' mimetic subversions of their limiting feminised positioning recall Deleuze and Guattari's concept 'becoming woman'. Deleuze and Guattari (1987) consider becoming woman "a quantum leap" from the established ways of being; that which energizes the potential to generate differences. The potential of woman does not lie in her ability to become like man, a standard form of being; but the potential to engender differences. As Paul Patton (2000) states, "becoming woman" is more of a metamorphosis machine and exists only through its own metamorphosis. One cannot "become woman" by simply reflecting standardised modes of being or by simply being different from them. One "becomes woman" by using her position as other to generate possibilities for other forms of being. So becoming woman, is not "a disempowered reflection of dominant subject" but "subject in process, a mutant, the other of the Other, a post Woman embodied subject cast in female morphology who has already undergone an essential metamorphosis." (Braidotti, 2002, p.12). This means that woman's relation to normalised standard forms of being can be fruitful and differentiating, rather than simply reflective and reproductive of existing ways of being. It can nourish other kinds of becoming. Deleuze and Guattari (1987), Irigaray (1974, 1975) and Braidotti (1994, 2002) would see that women's potential for metamorphosis lies in their locations inside/ outside dominant structures.

On parallel lines teachers' critical encounters with regulative forms of practice, competences and standards may be educational opportunities for engendering other open, creative concepts of becoming teacher from within. Deleuze and Parnet (2007) explain that a profession is "a rigid segment" (Deleuze & Parnet, 2007, p.123) in that it derives its authority from adhering to what is publicly conceived as acceptable.

But they also acknowledge that underlying that which stipulates the profession, are a series of activities that do not necessarily reduce processes of becoming a teacher to a replication of some standard. One can still assume positions of difference to normalized, standard hegemonic forms of being. This entails "a gradual unlayering of logocentric sedimentations" (Braidotti, 2002); an awareness of the workings of the "economy of the same" (Irigaray, 1974). For teachers this means becoming critical of the established competences that identify them. This is not to say that competences are not useful for teachers. Competences are necessary for teachers in recognising the spaces in which they are made. They are also necessary for qualification purposes. However, teachers are to develop their knowledge in identifying the underlying ideologies that define their competence. On reflecting on the competence of being socially just for example, teachers need to be critical of prevailing meanings of social justice (Cochran Smith et al., 2009).

Their "competence" in social justice cannot be developed out of context, separately from the way they actively engage with others and especially their students. They become socially just through their lived experiences, in relating to their students, in understanding them and at times in being there for and with them. Teachers become competent in developing their own socially just practices; in creating their own localised knowledge of becoming socially just. This means that whilst '*becoming woman*' involves practices of engendering other modes of being, the '*becoming woman of teachers*' includes working with contingent discourses that makes it possible for them to become otherwise and change. But what does this process of becoming otherwise entail?

Mimetic Reflection

One of the important strategies related to the philosophical concept of becoming woman is to take up and enact the very position assigned to them as Other in a subversive manner for their own self-formation. As Irigaray (1977) rightly argues one cannot simply step away from that which identifies her even if this identification constitutes her as other. To do so would entail negating her very own different being. Becoming woman entails working on that which recognises one as different to rethink the lack associated with her difference. It engenders the creative aspects of its position as the other of the standard. This mimetic strategy is a creative repetition of that which seeks to essentialise. On enacting changes within the spaces that have been assigned to them women can become different from that which is dictated by standards.

Teachers can perform standardised competences in a similar fashion. If reflective practice is considered one of the standard competences in becoming recognised as a teacher, it is important that teachers themselves are critical of the very reflective practices that recognise them as professionals. Another example is the caring competence that is essential to being a good teacher. On reflection, one can recognise the disciplinary mechanisms that normalise caring in teaching that I have mentioned above. On the other hand teachers cannot simply reject caring as it is a fundamental aspect of who they are. The 'becoming woman of teachers' would entail performing acts of caring that challenge impersonal technical forms of teaching, to reconsider other possibilities for the affective and effective dimensions of their work.

Caring in many professional codes of teaching practice for instance, prohibits teachers touching the students.

For teachers this is not simply a matter of deciding whether to physically touch the students to express their caring. It also involves exploring different ways through which children's lives can be touched. Moreover, caring within particular socio-cultural religious contexts sometimes entails the self-sacrificing act of forgetting themselves for the sake of others and for the sake of being recognised as good teachers. Mimetic caring can include attentiveness to others that does not preclude the care of the self.

Giving Birth to Different Teachers.

The 'becoming woman of teachers' may also refer to the association of teaching with maternal practices. Many teachers welcome their association with the maternal for the very powerful symbolisation it holds. (Galea, 2002, 2016). The very act of mothering is suggestive of the limits of conceiving it in terms of a competence. Smeyers, Smith & Standish. (2007) argue that being a mother does not solely entail acquiring some fixed set of technical competences. Of course this does not preclude acts of mothering inspired the many techniques suggested by how to books or referring to knowledge by experts on child caring. Being attentive, observant, organised, patient and well balanced are all important for successful mothering. Yet mothering is much more than an execution of these skills. It is more a processes of groping one's ways about, experiencing uncertainties and attuning to them to come to "new ways of looking at things" (Smeyers et al., 2017, p.215).

There isn't a specific vocabulary or language that can stipulate what mothering is also because the process itself involves a continuous generation of new meanings.

The maternal; its material and conceptual links with notions of creation, with giving life and with processes of transformation itself is indicative of how teachers can take up the maternal

role deliberately to expand it. Thinking about the maternal aspects of 'becoming woman' brings forth new dimensions to processes of becoming teacher. Just as the maternal dimensions of 'becoming woman' can be thought of as giving birth to different knowledges and different selves in relation to others, the '*becoming woman of teachers*' may be conceived as opening up infinite possibilities of becoming different in relation to others. Teachers' becomings makes better sense if understood as the on-going processes of relating to others rather than through how they related to inert competences. Just as mothers, teachers are "impregnated with otherness" (Battersby, 1998) both becoming unique subjects through their diverse and various relations they have with each other within changing contexts. Their becomings are dynamically open ended as one cannot know beforehand how their relations will develop and with whom. Just as mothers become differently with their different children and different circumstances, one cannot exactly pinpoint what becoming a teacher entails; it cannot be stipulated beforehand. The mother cannot know what she will give birth to, how she and her children grow or how to assess the success of her mothering processes through standards foreign to her lived experiences and the meaning generated from them. At the same time, however this does not mean that mothers cannot be aware who they are becoming.

On similar lines, teaching cannot simply reflect stipulated ways of being a teacher, however well-researched the official competences are. The becoming of a teacher involves simultaneous attentiveness to oneself, relations with others and lived contexts that gradually lead her to new kinds of thinking and acting.

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Section I

IDENTITY, PROFESSIONALIZATION AND TOMORROW'S TEACHERS

Teacher Education in a Globalised Age

Michelle Attard Tonna

Abstract

Globalisation is a catchphrase which has entered discussion in various fields and branches (Tikly, 2001; Gallagher, 2005). This paper is a critical review of contrasting perspectives on globalisation as it relates to education. The author raises concerns on the effects of globalisation on education in relation to the teaching profession. In this chapter teacher identity will be explored in terms of the role of teachers in a given society and the way specific societies conceive of this identity and adopt criteria to judge teacher success and effectiveness. Given the ascendancy of the global economic model (Clayton, 2004), this discourse includes other agencies that are exerting or are attempting to exert their influence on teacher identities. Teacher education and its evolving nature cannot be isolated from teacher identity (Welmond, 2002) - the way globalisation is conceived of, and the role one assigns to teachers in relation to it, will definitely bear an influence on the manner in which teacher education is structured.

Keywords: teacher education, globalisation, Malta, identity, teachers

Introduction

Globalisation is a catchphrase which has entered discussion in various fields and branches (Tikly, 2001, p.152; Gallagher, 2005, p.126). What follows is a critical review of contrasting perspectives on globalisation as it relates to education. In each section, after these general considerations, concerns are narrowed down to the effects of globalisation on education in relation to the teaching profession.

Teacher identity will be explored in terms of the role of teachers in a given society and the way specific societies conceive of this identity and adopt criteria to judge teacher success and effectiveness. Given the ascendancy of the global economic model (Clayton, 2004, p.276), this discourse includes other agencies that are exerting or are attempting to exert their influence on teacher identities. Teacher education and its evolving nature cannot be isolated from teacher identity (Welmond, 2002, p. 42) - the way globalisation is conceived of, and the role one assigns to teachers in relation to it, will definitely bear an influence on the manner in which teacher education is structured.

Hence, this paper will have the following structure:

I shall commence by defining globalisation, shedding light on the complexity of the global reality,

the intensification of global interaction and the distinction between the descriptive and the prescriptive use of the term. This will take us to the second section in which I shall introduce the three main approaches, and their respective criticisms, that build my arguments - the a-critical, the reformist and the radical approach. Consequently, the following section presents the positive approach, the idea that the world is a global society with resulting educational benefits, like wider access and new opportunities for research. The reformist approach acknowledges the shortcomings of the current global situation and suggests ways that the education system can adapt critically to this global reality. The last of the approaches represents the views of radical critics of globalisation who maintain that only through critical resistance can one challenge dominant modes of pedagogy and power relations that exploit the oppressed. Concluding observations bring to a close this paper.

Defining globalisation

Globalisation can be defined as a world-sweeping arrangement based upon:

...a creed of lower trade barriers; an end to exchange controls; freer movement of investment capital; and the displacement of public sector capital by the private sector. (Fontana, 1999, p.367)

Globalisation has been understood to entail a homogenous set of economic forces impinging on every country, wherein nations are engulfed in a whirlwind-like global market, and induced to cut public expenditure and encourage private enterprise (Young, 1998, p.52).

Despite the neatness of such descriptions and definitions, the global reality is very complex, and one must not succumb to the temptation of presenting globalisation in essentialist and reductionist terms; as an economic phenomenon homogenous in its effects and causes (Bray, 2003; Angus, 2004; Gallagher, 2005).

To start with, the phenomenon is not as new as it is frequently implied. Capitalism has had a 'global dimension' since it came into existence; involving places as distant as England, Portugal, Spain, Africa, India and China. In the 19th century, one could witness what may be called a 'global division of labour' between European manufacturing nations and colonial suppliers of raw material/markets. Moreover, such an economy was, after the 1870s, regulated according to an internally acknowledged parameter - the gold standard which fixed the international value of currencies (Fulcher, 2004, pp.82-83). However, one has to acknowledge that global interaction has intensified in the past few years.

Nowadays:

"Huge sums of money are transmitted across the world on a daily basis. Companies no longer produce in one country for export to others but run manufacturing operations in many different countries in distant parts of the world. Markets for goods and service, for capital and labour too, are in many ways global in extent."
(Fulcher, 2004, p. 82)

Yet, despite these global forces and the growing power and influence of multi-nationals, globalisation is not a uniform phenomenon. The actual world situation comprises numerous divisions, different histories and traditions, and differing national policies (Young, 1998, p. 52).

“Even though new financial centres have emerged in developing countries and investment in ‘emerging markets’ has become, for a time at least, fashionable, most of the money still flows between North America, Europe and Japan ... in 1998 emerging markets accounted for only 7% of the world’s capital, even though their countries contained around 85% of the world’s population. (Fulcher, 2004, p. 97)”

Moreover, investment in poor countries is not spread over a large number of these, but heavily concentrated in a small number (China, India, Mexico, Brazil; whereas a continent like Africa is on the whole, excluded). Even multinationals generally operate only in a small number of countries and, in terms of production, cannot be considered ‘global’ given the number of countries involved (Fulcher, 2004, p. 97/98).

Hence rather than referring to an actual, fully-fledged reality, globalisation should be understood as a **trend**; the trend involves a process whereby worldwide social and economic relations, linking distant localities to one another in such a way that events in one place are shaped by other events occurring miles away, are being intensified (Arnone, 1999, p. 10).

Apart from this descriptive use (to illustrate an actual/developing state of affairs), the term ‘global’ can be used prescriptively, to refer to economic policies and creeds upheld by governments, trade organisations, monetary and financial institutions and individuals at large. The two uses are many a time intertwined. Hence, in some cases, contemporary discourses about globalisation and managerialism have actually been turned into ‘regimes of truth’; i.e. the phenomenon in question is considered as an irresistible force - as inevitable as the sun rising in the morning - without much consideration to the contingency of the phenomenon in question and the agencies, political interests or logistics of those proposing the ‘truth’ in question. Hence, people are induced to comply with these discourses, and the values and perspectives they imbue (Angus, 2004, p. 40).

In what follows I shall use ‘globalisation as a phenomenon’ to refer to the descriptive use of the term, and ‘globalisation as a creed’ to refer to its prescriptive function.

Globalisation and Education

Globalisation, both as a phenomenon and as a creed, may influence and affect education. Different thinkers, philosophers of education and educators entertain different and contrasting perspectives on existing global trends and tendencies. Given the number and variety of positions, it is impossible to consider each and every theory regarding the influence of global trends on education. In what follows, I shall group these into three different classifications.

There are those who maintain an a-critical or indeed positive stance regarding this phenomenon and its influence on education. Others adopt a reformist attitude, and believe that, despite any shortcomings, education can be accommodated to suit this phenomenon. Others adopt a more pessimistic approach. I shall put forward representative perspectives from each group, and consider these critically. It is necessary to indicate, at this point, that there may be an overlap among these three approaches and particular perspectives can be related to more than one approach, depending on the intensity/nature of the view itself.

Accepting globalisation and adapting education to its demands

Some theoreticians (Surian, 2001; Jarvi & Holford, 2005) hold that ‘globalisation’ may positively influence education, since it may bring together different peoples, ideas and resources in a world-wide pool. The whole world is becoming a global society; media and cyberculture are becoming

more widespread. This is providing new opportunities for research and interaction to people who previously had no access to major libraries or research institutions (Kellner, 2005, p.102). Technological tools and developments can be applied to good use, so as to serve the needs of students across the world. This position holds that with capital shifting into a knowledge-based economy¹, information and knowledge are fast becoming a high-priced new commodity. Knowledge has become a principal economic currency, and its rapid production and circulation have become a crucial input for economic performance.

As to the role of teachers, contemporary teacher education, at best, tends to take a politically neutral direction and, as a consequence, it is limited in the ways it can equip teachers to understand how forces of globalisation and Neo-Liberalism are not forces in their own right but connected to a wider system of exploitation. Regarding this acceptance of globalisation, two main approaches exist.

The supply and demand approach

The first focuses on the demand learners themselves make of the educational system and promotes the 'marketisation' of educational systems, whereby education is considered as a sort of commodity to be sold, bought and consumed, using the market-place as the analogue of the educational set-up (Hartley, 2002, p.251). Education is considered primarily as an economic output, structured along and responsive to the market's needs. Neo-Liberal thinkers combine this general approach - treating education primarily as an economic output - with the laws of supply and demand. This emphasis on supply and demand should not be mistaken for a policy similar to that in force in Malta in the late 70's and early 80's, when the Socialist government regulated the intake of university students in relation to the needs of the labour market. 'Demand' here refers to the choices individuals make, as for instance, in choosing a course of studies at university, regardless of the motives, rationality or feasibility of the choice. If there are enough students willing to register and pay for a 'career-wise futile' course, then it makes economic sense for the university to cater to this demand.

It is very likely, however, that the market itself will in the long run decimate such demand, once students realise the unfeasibility of the course in question. This Neo-Liberal approach is also likely to promote features like managerialism, competition and market arrangements (Arnone, 1999; Angus, 2004). Globalisation widens the availability of clients and resources to be used in such regards. Moreover, as technologies like the internet have matured to a ubiquitous medium for learning, business and lifestyles, an internet-based computer-mediated approach to distance education can help bridge the space and time constraints of global markets (Jellen & Alon, 2004/5, p. 136).

Regarding teachers, this approach has induced some to view teachers as essentially economic actors, drawn to and retained by the profession in terms of economic costs and benefits. This is something which in many ways is already enacted, as a World Bank document (Farrell & Oliveira, 1993, p. 7) that examines teacher policy, reveals. The document states that policy-makers in different societies tend to include cost effectiveness within the definition of teacher effectiveness, and tie effectiveness to a given demand. The teacher is one input amongst others in the production process, whose purpose is precisely defined in terms of quantifiable outputs - the learning achievement of students.

¹ An economic set-up based upon the production and acquisition of knowledge, especially in areas like computer technology and biotechnology.

In the era of Neo-Liberalism where emphasis is on output, teachers' remuneration and security of employment is increasingly directly linked to student learning (Welmond, 2002, p.47). Policies are being enacted that attempt to improve students' achievement by providing teachers with the right incentive packages. These policies emphasize linkages among pay, control and achievement. In this regard, school effectiveness literature² has constructed a particular paradigm of teacher identity, based on the expectation that teachers produce student achievement.

It is very likely that within this approach which seeks to marketise 'education', teacher education will be subject to the laws of supply and demand, and its aim will be to make teachers and educators 'marketable'. It will take into consideration the demands consumers in the educational market are making, and seek to cater to this with an adequate supply of teachers having the required characteristics.

This approach may seem appealing because it seems to be responsive to people's choices, needs and desires rather than imposing homogenous models. Hence, it may avert the criticism generally made, that global models are imposed by some set of people on others.

Limitations to the supply and demand approach

Still, a number of shortcomings are evident, particularly regarding the role teachers are expected to play³. This approach urges teachers to cater to students' demands. Yet, given that the demand may change and that this may happen quite rapidly, teachers would have to be subject to constant retraining so as to be able to cater to changing requests. A major problem in such regard is that the rate of change in tastes and choices may be too fast to be catered to adequately and so allow for thorough retraining. Nevertheless, such retraining is something teacher education cannot ignore, even if the 'market-model' of education is abandoned, if anything because the changes that are occurring on a global scale, like knowledge-driven economies, technological revolutions and development of communication systems, seem to entail this (Bonal & Rambla, 2003, p.170). Moreover, teachers are made responsible to implement the necessary innovations to cope with social and economic changes. They must show capacity to interpret future requirements of work and life and constantly update their knowledge and teaching skills to keep up with rapidly changing global requirements, involving shifts in technology and widening social relations. They are called upon to model the skills-oriented subject without raising questions about what it means to live in a democratic society; questions about the relationship between democracy and capitalism. A pedagogic ambiguity is created because no concrete definitions of content, teaching methods and evaluation methods are considered to be the ideal ones. This creates risk-awareness, uncertainty and dislocation among teachers and they end up being blamed for lack of educational quality, resistance to change and innovation in teaching methods (Bonal & Rambla, 2003, p. 179).

In addition, I believe that the positive emphasis on the choices people make seems to be naïve and smacks of voluntarism⁴. The choices people make are not totally objective or made in a

² This maintains that schools have an impact on pupil performance and thus changing schools could improve performance and educational standards.

³ Teachers have to play complex and diverse roles, not only as subject specialists, but also as assessors and curriculum counselors, while at the same time contributing to the wider goals of their school as a whole - Young 1998, 59. Education systems and policies, controlled by the state, make demands on the role of teachers - Bonal and Rambla 2003, 171.

⁴ The use of or reliance on voluntary action to maintain an institution, carry out a policy or achieve an end - Bullock and Trombley (1999, 912).

vacuum, but occur within specific and concrete contexts, in which features like employability, prestige and recognition play an important part. Regarding these features (i.e. employability, prestige and recognition), there are stakeholders (large industries, powerful groups, etc.) with specific interests and agendas, which determine these.

Economic efficiency in education

The second approach which attempts to adapt education to this global economic/political/social situation aims at making the learner as economically competitive as possible. Economic-efficacy is understood in this approach to be education's major aim (Welmond, 2002, p. 42).

Yet, rather than leaving education at the mercy of the laws of supply and demand understood in the manner delineated in the first attitude, here it is the needs of the economy at large which determine the content and pedagogy of the educational set-up. Hence, if the world economy requires people with more sophisticated technical skills, the wider teaching of skills like media and computer literacy is promoted and students are taught how to use these new technologies of information and entertainment, so as to be able to succeed in a hi-tech economy (Jellen & Alon 2004/5, p. 136). Competitiveness-driven reforms, i.e. reforms aimed at educating society at large so as to make it more economically competitive, are enacted to attain such ends. In this regard, Fischman (2001, p. 415) maintains that globalised economies need flexible and creative workers. This necessitates students to develop a fundamental ability - trainability; the disposition to be continuously taught and trained. Students must be able to cope with new requirements of 'work' and 'life'. The worth or significance of such requirements is determined by market forces (Bonal & Rambla, 2003, p. 174).

This approach generally entails greater regulation and standardisation regarding the ends of education, pedagogy and teaching. These standardising trends are given impetus, not only with regard to a national educational system, but even on an international scale (Jarvis & Holford, 2005, p. 98). An example of this can be drawn from the EU, wherein the internalisation of higher education, common norms and practices and the Education Research Area are promoted, in order to increase academic mobility, exchanges and partnerships within the EU (Musselin, 2004, p. 56). Yet, as with the globalisation of the economy, this international standardisation of education indicates a trend rather than a fully-fledged state of affairs. Bonal and Rambla (2003), and Musselin (2004) maintain that education systems and policies remain largely controlled by the state and point to the deep divergences that exist among academic labour markets. Each country is developing its own solutions and answers to the evolving circumstances (Bonal & Rambla 2003; Musselin 2004). Proponents of this approach point to the benefits that are likely to ensue from such standardisation and regulation (Hartley, 2002, p. 251). For instance, centralised provision of The European Computer Driving Licence (ECDL) to secondary school students - a course of studies which is highly required in view of the dominant position of Microsoft in the Information and Communications Technology (ICT) market - may enhance multinational investment in the country in question. Moreover, international interaction may also be facilitated and enhanced.

Regarding teachers, these need to rethink the necessary collective responses to global challenges that are influencing the teaching profession, where the word 'challenges' is generally understood to mean the challenges and opportunities entailed by a capitalist economy (Fischman, 2001, p. 417). Teachers are expected to mould students in light of economic trends and challenges, and to pass the skills necessary to create a workforce capable of achieving these. In light of this, teacher education is likely to be highly standardised. This implies that teacher education programmes are regulated by the state or by local education authorities. Teachers would be subject to formal and

bureaucratic benchmarks regarding their performance (Welmond, 2002, p.43). The pedagogies these endorse are usually didactic and traditional. In view of the economic ethos of such an attitude, teacher education programmes are also meant to be cost effective.

Limitations to the economic efficiency approach

One should note that this drift towards standardisation is not limited to government initiatives. Through the influence of electronic media, genres are set by curriculum design experts. These generally lead to the standardization not only of the topic itself, but also of the logistics through which the topic itself is learnt. This, as Baker (2005), argues, can involve many drawbacks - educators tend to become checklist teachers; their profession would lack risks, unpredictability and the magic of teaching. Furthermore, Hartley (2002, p.255) points out that a cheap, one-size-fits-all 'standard' in teacher education may turn out to be ineffective with regard to the promotion of human resources and the competitiveness of the economy in general. The knowledge economy requires creativity, collaboration and self-management; the teacher is afforded a greater autonomy to adopt innovate teaching methods and is responsible for maximising knowledge acquisition. These are features which standardised models are unlikely to promote. Besides, the demand for teachers to take new and broader responsibilities, albeit in itself being a competence, is not easily specifiable in competence terms. Hence, attempting to specify and accrediting teacher competencies is not without its difficulties and contradictions (Young, 1998, p.62).

Teachers may not share common social, economic and cultural characteristics, and hence it may not be a good idea to standardise teacher education (Hartley, 2002, p.254). In this regard, it is worth noting that despite these centralising trends, the influence of the state is not total. Indeed, there are experiments aimed at promoting a deregulation of the providers of teacher education programmes at varying levels, in response to broader cultural and economic conditions. A settlement is generally formed among these different factors which mould the teachers' identity.

I feel that it is also necessary to bear in mind that standardisation and cost effectiveness may prove to be contradictory aims. Policy-makers are caught between policies which foster economic competitiveness and policies which are cost-saving, standardised and seek efficiency (Hartley, 2003, p.83). If teacher education is standardized, it may be efficient in terms of costs, but not necessarily effective in light of the prevailing knowledge-based economy. By containing the unit cost of education and decreasing spending, the continued growth of educational opportunities stipulated by competitiveness-driven reforms may be seriously hampered (Welmond, 2002, p. 42).

Moreover, with such standardised models, wherein paradigms are set and 'imposed' by government and teachers are merely expected to fit into these, teacher education programmes may end up perpetuating passivity, subservience and even resistance. Teachers develop to externally imposed and culturally inappropriate ideas, because they do not set the goals or control the process. In this regard, Myrick notes the lack of concern for the experience of teachers and their professional status (Myrick, 2004, p. 26).

If techniques/approaches are not developed in collaboration with the participants, there is the danger of them not being relevant. This disengagement can be observed when some new textbook and its subsequent training is introduced in schools without the teachers being consulted. Teachers complain because they feel they can contribute their experience and expertise in the choice of book. Indeed, the viability of such an approach is disputable even from a purely

economical point. When there is an overemphasis of knowledge produced by ‘experts’, who are far from the reality of schools’ everyday life, knowledge of practice or knowledge developed from practice is downgraded (Dahlström, Swarts & Zeichner, 1999, p.160). This does not augur well for the needs of a knowledge-driven economy, the distinctive assets of which are knowledge, skills and creativity.

Supply/demand and economic efficiency - limitations to both approaches

Despite the differences between these approaches (regulation and standardisation vs. individual choices and market forces), I believe that what is common to both approaches is their trouble-free adaptation to the global economic model and their referring primarily to economic aspects and aims as the goals to which education ought to adapt itself. Regarding teachers, these approaches ignore the role teachers may have as possible agents of change and aim exclusively at having the teachers fit the capitalist/global economic models they accept.

Teachers are considered as mere functions of the economy at large, as indeed are the students to which these models are intended to cater. Indeed, it is the limited scope of the aims they put forward that makes them liable to some serious criticism. They seem to narrow down excessively the roles of education in general and of teachers in particular. Their main deficiency is arguably their failure to include critical elements both within the models they promote and in relation to globalisation. Globalisation is accepted “*tout court*”. What emerges from this uncritical acceptance is an idealised model of what globalisation is all about. Thus, it is not surprising that the critical function of teachers seems frequently shunned.

Global educational models - a criticism

In this section I shall attempt to discuss how the proliferation of global educational models, which uncritically accept globalisation and adapt education to the demands of globalisation, incorporates considerable limitations, both on a general level, and on the teacher education level in particular.

Global educational models that promote collaborative efforts across continents and countries tend to conceal certain shortcomings, in that they disrupt traditional ways of teaching, knowing and learning and provide a threat to cultural diversity (Commeyras & Mazile, 2001; Jarvis & Holford, 2005). A complex system of power relations and control induces, maintains and legitimates pedagogy, in the sense that it distributes its own consciousness, identity and desire (Bonal & Rambla, 2003, p. 173). The group in power tries to incorporate its own culture into curricula and educational programmes and reproduce it in the next generation to the exclusion of less powerful and sub-cultural groups, like women and minorities (Jarvis & Holford, 2005, p. 97). The cultural status quo is perpetuated and the interests of the dominant groups are reflected (McCarthy, 2003, p.130). A case in point is the emergence of invisible pedagogies linked to the new middle classes, who organise knowledge and power asymmetrically so that the former buttresses the latter. Hence, working-class children find it difficult to cope with invisible pedagogies perpetuated by the middle classes, because the school assumes that all children arrive with similar educational goals (Bernstein’s discourse, as cited by Bonal & Rambla, 2003, p. 172).

These structural imbalances influence the effectiveness of the position one adopts in any exchange undertaken. This can be witnessed, for instance, in the different degrees of prestige types of knowledge enjoy - that proliferated by the Western World is more valued, accepted and seen as authentic and valid than Indigenous knowledges and wisdoms (Crossley & Tickly, 2004, p.149).

Yet, a growing dissatisfaction with Western scientific endeavours can ensue because of their inability to describe all that occurs in people's experiences of the world. One may retort that adapting education to such competitive goals need not ignore these differences, varieties and idiosyncrasies. Indeed, suggestions are made, regarding technological developments and the global proliferation of educational courses through distance learning, as to the need for these to be culturally sensitive to the learners for whom they are provided. Course-offerings need to be made relevant to the educational systems in different countries. Thus, teaching approaches may need to be modified to support students from different cultural backgrounds. In designing electronic learning environments, materials, tools and resources may need to be customised in order to enhance the students' learning experiences (Selinger, 2004, p. 238). Such modifications could redress any initial imbalance.

Unfortunately, these suggestions concern only the adaptation of international educational systems structured in relation to given economic goals for particular environments. They do not deal with who is to determine the goals education should aim at and/or the economic goals themselves. They ignore a fundamental aspect - power⁵. By ignoring this, educational programmes which take for granted current educational/economic aims and are adapted to particular environments, may prove to be a more effective tool through which dominant class/groups/nations may exert/consolidate their economic/cultural/political control over others, compared to crudely standardised and homogenous programmes.

It is easier for a dominant group or class to induce others to accept as the natural order of things its values and interests and its way of seeing the world and social relationships, through the use of an idiom that appears familiar to the dominated classes/groups, than it is by using one which would seem foreign or imposed from outside.

At this point I feel it is worth mentioning the global phenomenon of educational models that are aimed at aligning education and the capitalist economy. These models are criticised for the implications they hold on the teachers concerned, as they seem to entail the impoverishment of teachers' professional role (Fischman, 2001, p.416). Teachers are being re-defined as technical practitioners rather than professionals. This is in line with a new professional profile which is gradually emerging - the teacher is more of a knowledge manager than a knowledge expert (Bonal & Rambla, 2003, p.171). This has resulted in increasing lack of autonomy for teachers in how and what they teach and in deskilling at an international level (Fischman, 2001, p.417).

It has also led to teacher demoralisation, and a fall in recruitment (especially in areas like physics and technology) is a response to the direction towards which teacher education has evolved. As Young (1998, p. 55) explores, teacher education is moving towards technocratic modernisation - teacher responsibility is increasingly limited to monitoring students and preparing them for tests.

Having said this, one has to say that this alignment of education and economy has not been the only cause of such decline in the appeal of teaching as a profession. Other factors one can refer to are the interests teachers hold; the teachers' acceptance and compliance with such models; the hierarchical and bureaucratic structures of schools; the failure of governments to promote rich professional development models and the application of scientific methods, computers and business efficiency models to education, which is creating a conflict in teacher education since it is at odds with the increasingly complex and diverse roles of teachers (Fischman, 2001, p. 415).

⁵ Power over educational set-ups and curricula; their goals; power in relation to economic structures, etc.

Reformist approaches to globalisation

Having referred to the shortcomings of global economy/educational models that accept these uncritically, the question arises as to whether one should abandon any effort to adapt education to the current global situation. Some theorists (Commeyras & Mazile, 2001; Saito, 2003) would answer in the negative and claim that education can/ought to be adapted to the current global situation, though not naively. An approach to education need not merely accept the developing global economic situation and adapt itself uncritically to it. The nature of the global economic set-up and of education itself suggests the feasibility of such a possibility.

Economy is no monolith, as seen in my remarks in the introductory part. As to education, a number of authors (Commeyras & Mazile, 2001; Jelen & Alon, 2004/5) point out that, despite the homogenising and hegemonic influences of global education and culture, these are neither monolithic nor is everything fatalistically foreordained.

For instance, regarding the homogenising tendencies criticised earlier⁶, local and global aspects may be reconciled if providers of education on an international scale design programmes which, though standardized and abiding to international standards of professionalisation, take into account idiosyncrasies of tradition, culture and environment. Students, then, would be engaged in such international programmes in ways that allow them to acknowledge their cultures and enable spaces within educational settings where empowerment and liberation, rather than domination, can take place (Commeyras & Mazile, 2001; Jelen & Alon, 2004/5).

As for teachers, these, like all other stakeholders in education, need not accept passively the current economic-social-political status quo. Indeed, teacher education programmes could be set which, rather than adopt a neutralist approach towards globalisation, enable teachers to examine the phenomenon critically and help them devise critical-political pedagogies in light of values other than those of the economy. Given this, one may presume that education can contribute to change; the extent and desirability of change possible are contentious matters. Approaches exist which invite people within education to think critically about the global situation, and attempt to reform the situation, rather than merely adapt themselves to it. Teachers need to know, and educate their students about causes, dynamics and outcomes of trans-national forces (Arnove, 1999, p. 10). Now, such a critical approach need not consider globalisation and globalising trends in education as entirely negative phenomena, but should attempt to reform these in light of certain non-economic goals.

The dialogical approach

One such 'reformist' approach to the relationship between education and globalisation is adopted by Naoko Saito in his paper "Education for global understanding: Learning from Dewey's visit to Japan." Here, Saito discusses the relation between globalisation and education in light of John Dewey's views on education and knowledge (Saito, 2003, p. 1759). Globalisation is a phenomenon which contains a number of shortcomings, yet opportunities exist that may enable educators to circumvent such limitations. Detractors accuse the current global set-up of being biased in favour of politically and economically hegemonic groups and nations. Approaches like the two articulated in the previous section reinforce such a hegemony, through the promotion of the culture and values of such groups.

⁶ Refer to the section of Global education models - a criticism

Saito contends that in order to do away with such shortcomings one need not abandon the ideal of global education and supra-national educational models.

The key concepts which ought to characterise such models are 'dialogue' and 'global-understanding'. In this regard, he refers to Dewey's promotion of notions like that of 'unity in diversity'; solidarity and the fusion of and interaction between different perspectives regarding knowledge and pedagogy. Such a dialogical approach (like for instance exposing students to foreign cultures and enabling international exchange programmes) should enable different participants in the global debate to find common ground regarding their aims and projects.

The gist of all this, together with the need for teachers to know more about the world beyond their national and continental borders, seems to feature also in Commeyras and Mazile's (2001, p. 199) paper: "Imagine life in another country on another continent: Teaching in the age of globalization." They maintain that technological changes and increasing economic opportunities greatly intensified the necessity for teachers to think like globalists, to collaborate with teachers from different classrooms and countries, while affirming their diversity in their own setting and at a global level.

Limitations to the dialogical approach

In my opinion, these invitations seem to suffer from a "kind of idealism wherein one understands reality and its mechanics as a function of some ideal, idea or set of ideas". The ideal of unity promoted has a number shortcomings.

In terms of logistics, if common ground between different parties is found, there is no guarantee that this will be consistent and consonant, due to the difficulty of coming to a mutual understanding with those who are different or who have different interests. First of all different conceptions of knowledge and pedagogies may be contradictory and mutually inconsistent. For instance, regarding the teaching profession, there are the different and competing conceptions of teachers' rights and responsibilities (as well as the different ways of understanding success or effectiveness in teaching). Besides, the way teachers respond to these demands has serious implications for the evolution of education sectors (Welmond, 2002, p. 38). Moreover there are each teacher's personal assumptions and expectations, which may be discrepant or contrary.

A proponent of this approach may recognise these shortcomings, yet claim that these may be curtailed or circumvented through the dialogue it suggests. The recognition of such shortcomings would constitute a challenge rather than a stumbling block. Yet, such a reply seems to limit itself to inconsistent conceptions of knowledge and education and fails to consider something deeper than these - contradictory and mutually exclusive interests.

These conceptions may in fact reflect the different interests of different groups within society, the conflict of which may place contradictory demands upon the educational systems and upon teachers.

The occurrence of exchanges termed 'dialogue' or the agreement upon stances designed as 'common ground' reached between, say, dominant class and dominated classes; Neo-Imperialist forces and the third world, etc., is no guarantee that shortcomings entailed by the economic/political system are being curtailed. Even in our society, much discourse regarding 'social partnership' or 'class fellowship' (coupled with injunctions as to the unfeasibility and anachronistic nature of militancy and protest), seems a badly curtailed attempt by dominant groups and their

institutions to emasculate the rest of society and induce it to accept their values and interests. Moreover, Saito's suggestion seems to make dialogue the key to change; to circumvent much of the ills globalised education reproduces, according to its critics. This suggestion underestimates the resistance that hegemonic groups are likely to make to any attempt to change current vertical global-trending relations to more horizontal and levelled ones. The question here arises as to why culturally and economically hegemonic groups should undertake dialogue with others on equal grounds, if it is not in their interest to do so. Hence the possibility of horizontal dialogue between politically hegemonic groups on the one hand, and excluded ones on the other, is highly unlikely.

Such naïve thinking seems to underlie all those suggestions which make education the panacea of all social/political evils. Rather than change current economic/political set-ups, these seem to assume that educational reforms are both necessary and sufficient to address all ills. Such thinking is idealistic not merely because it assumes that a change in the realm of ideas and thinking will be the motor that determines concrete and fundamental changes in the real world, but because it generally fails to consider the stakes and interests involved in education, which undoubtedly influence the resistance, reluctance or lack of these in relation to any proposed change.

The progressive approach

Another reformist approach is that suggested by Morrow and Torres (1999, p. 100). As with Saito, they point out that one cannot escape the current global economic/technological context. Rather, students and educators have to intervene in this context and attempt to deflect these forces (something which they believe is possible) towards progressive ends. In this regard they suggest three aims which education should uphold:

- The first may be termed 'critical adaptation to the new situation'. This entails the pedagogical transformations which must be as revolutionary as the technological transformations taking place (Morrow & Torres, 1999, p. 102). However, this does not necessitate the mere adaptation of pedagogies so as to enable individual students to deploy multiple technologies in light of the individualistic aims the capitalist economy might promote. Rather, they have human well-being in general and communitarian terms as their aim (Morrow & Torres, 1999, p. 101). The need to make the most of these technological advances and the opportunities they provide to educators wishing to enhance education has been emphasised by Kellner (2005, p. 102). Starting from the duty teachers have to illuminate the nature and effects of globalisation; to counter globalisation's oppressive forces and to empower individuals to understand the phenomenon and act effectively, he points that the internet and other new technologies may help educators devise strategies aimed at producing active and democratic citizens. Teaching skills such as media and computer literacy may empower students to deploy multiple technologies for progressive purposes.
- This communitarian aspect points to a second aim education should have, what may be termed the 'humanistic aim'. This requires the acknowledgement of a wide range of other literacies often neglected in schooling, like the training in philosophy, ethics, value thinking and humanities. It entails the rethinking of the concepts of literacy and the very nature of education. Education should not merely provide the skills through which the individuals may carve their niche in the current socio-economic world, but be able to analyse this critically and in light of humanistic (not merely economic) criteria.
- The third aim of a critical approach to education should be social justice (Morrow & Torres, 1999, p. 108). Pedagogical strategies ought to be devised to demonstrate the existent threats

to democracy and freedom, and expose students to ways in which new technologies can be organized to create a more democratic and egalitarian, multicultural society. This third aim seems to entail a qualitative leap compared to Saito's proposal. Rather than a vague concept like 'dialogue', it entails recognition of existing power groups and shortcomings, which presumably, would entail the acquisition of a critical conscience by excluded groups and attempts to make up for this.

Limitations to the progressive approach

A shortcoming of this approach is that it still seeks an adaptation, albeit a critical one, to the global-capitalist model as its ultimate aim. Though such an aim may rightly be envisaged as a short-term solution, the question arises as to whether it can be maintained in the long run, given the ethos of the global-capitalist economy. Capitalism is based upon exploitation and unequal exchange, lest no profits be made. When products are produced through the work of labourers using the means of production supplied by the capitalist, the labourers receive in wages less than the value of the products their labour-power creates. Hence, profit results from the exploitation of workers by the capitalist; following this, the product is sold, bought, exchanged, etc. and further profit ensues, produced through something getting more value (known as surplus value) than s/he invested initially in the exchange, and somebody else getting less than his/her initial investment. Globalisation widens further this relationship. Despite neither the economy nor education being monoliths, could such a contradictory arrangement - exploitative global economy on one hand and humanistic educational set-up on the other, be envisaged as permanent? Regarding the teacher, this approach seems to entail that teachers are to utilise their pedagogical skills and expertise to resist and challenge the dominant forces of capitalist schooling without specifying the necessary training to do so. Besides, even granting that these pedagogical tools are transmitted in teacher education programmes, and without diminishing in any way the important role of the teacher in having an influential impact on the learners concerned, it is quite idealistic to suppose that the community at large can become empowered through the work of teachers alone. Additional sophisticated, social and political mechanisms need to come into play in order to engage the whole community in critical thought with the outcome of overcoming oppressive forces.

Radical critics of globalisation

Other theorists (McLaren & Farahmandpur, 2001; Bonal & Rambla, 2003) paint a bleaker and less hopeful picture of globalisation, and indicate the undesirability of adapting education to such a set-up. However, a number of them conceive of education as a means through which critical resistance to such a phenomenon may be mounted. Hence this part will contain two sections: one dealing with the shortcomings of the global model; the other with possible ways in which education may help one engage with this phenomenon and the influence it is exerting on education.

Globalisation and its negative effects on education

Let's consider the first aspect first. There are a number of ways in which, according to critics, globalisation has affected negatively education, for instance, in terms of funding and provision. According to Gallagher (2005, p. 122), the quality of education has generally fallen, due to global forces operating at trans-national level and the limits these set to the autonomy of individual states. This is because it is becoming increasingly difficult for states to deliver adequate educational support when the free market philosophy runs rampant.

Capital is increasingly being transferred from the public to the private sphere. The increasing

inability, or unwillingness of governments to fund rising enrolments places a strain on universities to sustain their research and teaching activities through other sources of income (Welch, 2001, p. 479).

A case in point is what happened in the immediate aftermath of the collapse of the old Communist States in East and Central Europe - a loose confederation of states was established, most of which suffered economic and education decline. The consequences were an increase in the personal costs of education and an increase in private education. A similar situation could be observed in South Africa where a programme developed by the government with the aim to tackle the inequalities inherited from apartheid had been replaced by another policy which placed more emphasis on economic competitiveness, prioritised export-led growth and downplayed social programmes. Major inequalities between schools and provinces remained, with schools in Black townships being the most disadvantaged (Gallagher, 2005, pp. 122-124).

A detractor might point to the anomaly of the examples given. He or she might claim that in such countries Neo-Liberal policies have failed not because they are deficient in themselves, but because of the inadequate models (Communist and Apartheid that preceded them). Yet, should one look at the situation in Latin America, the picture is similar - one realizes that with Neo-Liberal strategies, the whole system has been weakened without achieving any real improvement in the quality of basic education. Decentralization introduced disorder, rather than efficiency, in educational systems. In Argentina, for instance, globally integrated open economies required an internationally competitive workforce strong in science and technology. Nevertheless, the country failed to meet these challenges⁷.

The big cutbacks in public funding and the increase in poverty eliminated any possibility of either improving the competitiveness of the workforce, or encouraging scientific and technological developments.

Even when considering industrialised nations, the impact of globalisation on their educational set-up has not been favourable. The shortcomings have not been only economic, but also political and cultural. For instance, one can witness the growing commercialization and corporatization of public schools (the businessification of schooling), which in turn are forced to accept corporate funding. This has resulted in a shortage of qualified teachers, school textbooks, resources and materials. Public schools have become new consumer markets for corporate propaganda (McLaren and Farahmandpur, 2001, p.290). Because of lack of government funding, trans-national corporations are privatising socially produced knowledge (knowledge attained collectively in schools, universities, etc.) associated with the educational system and sponsoring research centres in universities⁸. The latter has transformed public universities into corporate-operated 'technopolises' (hubs of hi-tech industries and marketing; 'research and development' being the operative term), the outcome of which is a high-tech colonization of education. Education is fast becoming an extension of the market economy. Pedagogy is reduced to a commodity in a deregulated labour market (McLaren & Farahmandpur, 2001, p.288).

The implications for teaching and learning

This phenomenon is negative because the ultimate goal of education seems to have become

⁷ Argentina had to pay high interest rates on growing foreign debt; the region has an inferior position in the global economy; a great mass of workers was discarded by deindustrialization.

⁸ Universities in the US, England, many parts of Western and Eastern Europe and major parts of Asia.

that of assisting students to adapt to a corporate structure, trained to identify with, rather than criticise, cultural and social authorities. Professors and students have little or no direct contact at all and the focus is only on those students (graduate) who directly assist faculties in their research endeavours (Myrick, 2004, p.26).

This also implies that progress is defined as the accumulation of compartmentalised learning - the ongoing move towards professionalism and specialisation through narrow, goal-oriented education and action-based expertise promotes a very mechanistic view of teaching and learning, and denies the individual of any legitimacy. Little interest is shown by contemporary educational policy makers in what is the aim of teaching apart from the economy; the effects of new plans on the quality of life of either teachers or students, and society at large. There is the risk that teaching becomes a form of impersonal transaction with no need for the teacher to have any authentic encounter with the student or the curriculum - in contrast to a centuries' old tradition of conceiving of education (going back to Socrates and Plato) as a joint venture involving interested and engaged participants.

Moreover, doubts remain as to whether, from a purely economic point of view, accumulation of knowledge, compartmentalised learning and lack of genuine social encounters with the teacher and the learning community, are really helping students to carve out a better living.

Besides, even assuming this educational model reaches the economic goals it sets, it still reflects the shortcomings of the Neo-Liberal social model as such, wherein any notion of 'community', 'concern' and 'society' is actually debunked. As Conservative MP Douglas Hurd once commented following a visit to a market town in middle England:

“What you find are too many young people with too much money in their pockets, too many pints inside them, but too little notion of the care and responsibility they owe to others.” (Hurd, as cited by Pugh & Flint, 1997, p.127)

The educational model designed to accommodate itself to a global economy does not seem to encourage such notions either. Moreover, despite the diversity of its impact and the fact that globalisation and education are no monoliths, thinkers like Bonal and Rambla have claimed that globalisation has generally colonised the pedagogic field and educational policy indefinite and harsh terms (Bonal & Rambla, 2003, p.183). Dominant pedagogies and modalities are imposed through new curriculum policies and reforms, so as to buttress Neo-Liberal values and assumptions, and, in certain cases, maintain and reinforce dominant groups. An example of the former could be seen in Spain in the late 90s - discourses about the lack of educational quality and policies of evaluation of school and student performance were used as political tools to promote performance-oriented pedagogies. Examples of the latter have already been alluded to. Groups in power incorporate their own culture into curricula and educational programmes. In this way they reproduce power relationships, exclude less powerful and sub-cultural groups, like women and minorities (Jarvis & Holford, 2005, p. 97), and are a threat to cultural diversity (Commeyras & Mazile, 2001; Jarvis & Holford, 2005).

A critical pedagogy

But even assuming the phenomenon to be as negative as these make it to be, what approach should one adopt in its regard? Should one adopt a fatalistic attitude, and believe that education can do nothing? Should education merely adapt itself to this phenomenon, something that would be tantamount to adopting the first approaches considered earlier (in 1.3)?

I believe that education, without falling in either of the two traps referred to in this essay; i.e. accepting fatalistically the order of things or, in idealist fashion, thinking that all problems may be healed through some sheer formula or set of ideas, can grapple with the situation in a humanising and progressive manner.

As stated in the previous section, education is no monolith. Hence it can be a site where resistance to sweeping phenomena may be organised, wary that this cannot be the only site where resistance is waged, and open to other radical projects in other fields. Thinking otherwise, that it may be the only site, would lead us back to the idealism discussed earlier. The situation is illustrated excellently by Paulo Freire in his book *Pedagogy of the Oppressed*:

This solution cannot be achieved in idealistic terms. In order for the oppressed to be able to wage the struggle for their liberation, they must perceive the reality of oppression not as a closed world from which there is no exit, but as a limiting situation which they can transform. This perception is a necessary but not a sufficient condition for liberation; it must become the motivating force for liberating action. Nor does the discovery by the oppressed that they exist in dialectical relationship to the oppressor, as his antithesis - that without them the oppressor could not exist - in itself constitute liberation. The oppressed can overcome the contradiction in which they are caught only when this perception enlists them in the struggle to free themselves. (Freire, 1993, p.31)

Note first of all the emphasis Freire makes in the last sentence, wherein he claims that the perception of reality, which education ought to furnish, is not the 'be all and end all' of the emancipatory struggle (in idealist fashion,) but the preliminary to 'enlist them in the struggle'. All suggestions regarding education should be made in light of wider political-emancipatory movement both on a local and a global level.

Note also the emphasis on the need for the oppressed to understand reality: not merely the mechanics of the situation but also its limits and relativity. Education thus, must be critical in the Kantian sense of the term, wherein by critique one understands an analysis of the conditions of existence and possibilities of a phenomenon. This would enable one not merely to understand concretely a concrete situation, but also, empower her/him to work so as to achieve change.

The need to weave a critical pedagogy is discussed at length by McLaren and Farahmandpur (2001, p.271) who point to the oppressive forces and effects of globalization and emphasise the need for people not to resign themselves fatalistically to the current situation but to embrace a critical pedagogy which develops new educational strategies in order to counter these forces.

The aim of such pedagogy should be the empowerment of individuals (educators, and consequently students) so that these may understand and act effectively in a globalised world; and also struggle for social justice (in light of which education can and ought to be transformed). This latter aspect is fundamental. Critique itself is not enough. As Freire notes:

A mere (albeit correct) perception of reality not followed by this critical intervention will not lead to a transformation of objective reality....This is the case of a purely subjectivist perception by someone who forsakes objective reality and creates a false substitute. (Freire, 1993, p. 34)

A critical pedagogy goes beyond reflective practices which, far from being emancipatory and empowering for teachers (in terms of them challenging assumptions), can only serve to reinforce existing beliefs. The practice of reflection is itself a product of specific historical power relations; ways of thinking are subject to and produced by social practices of discipline and normalization. While, as Manternach (2002, p. 280) maintains, it is important for teachers to illuminate considerations of power and become aware of those assumptions (bureaucratic, economic, political and linguistic factors shaping education) that are working against them in order to make meaningful, just and caring curricular decisions, it is hard to distinguish between transgressive practices of reflection and those that are complicit with existing power hierarchies (Fendler, 2003, p. 2).

Today's discourse of reflection includes a wide range of meanings, mixed messages and confusing agendas (Fendler, 2003, p. 9) and further research is needed in order to demonstrate that as a pedagogy, it can encourage the development of skills, attitudes and knowledge. The use of learner-centred education (for teachers and learners to become critical thinkers) and reflection are at the forefront of educational discourse, implying a highly desirable and effective pedagogy, yet most of the literature often fails to explain how teachers become able to apply their thinking to a wide array of global issues and respond to new questions and challenges. Radical teacher educators who acknowledge that teachers' work is the production and reproduction of knowledge, attitudes and ideology, put forward diverse recommendations. It is argued that one of the factors that contributed to a loss of critical thought is the current culture of performativity and strict regulation and self-regulation by teachers of their own pedagogy (Ball 1999; Mahoney & Hextall, 2000; Boxley 2003 as cited by Hill, 2007, p. 211). In response to this, teachers are to adopt the functions of intellectuals and to resist becoming mere managers; they must engage in self-criticism, understand their potential role in transforming society and be able to interrelate critique theory and practice (Hill, 2007, p. 216/7).

My final observation goes towards this last point, i.e. the interrelation of critique theory and practice. Apart from being critical, I believe that education needs to be also realistic. It must enable teachers and students to critically grapple themselves with the phenomenon, and seek what can be done concretely in different situations. This is essential, particularly to inhabitants of peripheral and, in world-wide terms, minor places like Malta. Ultra-radical and ultra-critical discourses (for instance, *Stiglitz's Globalization and its discontents*) weaved against phenomena like capitalism and globalisation (generally treated in homogenous and abstract terms) tend towards infantile ultra-leftism, a bourgeois malaise of an idealistic kind, which through futile anathemae against such wide-ranging phenomena, may make one turn a blind eye to local power struggles and concrete or realistic possibilities regarding such struggles. Intervention in the educational field must steer between the two debilities of a fatalism and a cheap voluntarism.

Concluding observations

My attempts have been to characterise and clarify some of the debates surrounding the phenomenon of globalisation and its multiple effects on education and policy formation. Negative outcomes and recommendations abound, so I feel that I should conclude this essay with a morsel of hope.

While for some globalisation has been an instrument for progress, creating wealth, expanded opportunities and a nurturing environment for entrepreneurship and enterprise, for others it has exacerbated inequalities and insecurity. Definitely, it brought about fundamental changes to the way societies are formulating educational policy and practice. In the discussions I presented one

can see specific and concrete implications of how education is changing, and will need to change, in response to these new circumstances.

I believe that even if changes are inevitable, they can become more equitable and just. Educators must acknowledge the force of these trends, and see their implications for shaping and constraining the choices available to educational policies and practices, yet resist the rhetoric of 'inevitability' that often drives particular policy prescriptions. Situating the contemporary debate within a historical framework assists one to re-examine this apparent inevitability - changes, that have been at work for a long time, can indeed be observed in the field of education. All is not lost.

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Section I

IDENTITY, PROFESSIONALIZATION AND TOMORROW'S TEACHERS

Professionalisation of the Local Early Years Workforce: Why do we Keep on Missing the Boat?

Lara Said

Abstract

This position paper considers the missed opportunities that the Maltese education system has experienced with regards to not appropriately addressing the professionalisation of the local kindergarten/preschool workforce. In this paper, the term professionalisation is defined as a movement that seeks to establish a graduate workforce of individuals educating children between the ages of three to five years. Here, the current status of early years workers particularly with regards to training, pay and employment conditions are explored. It is argued that the training conditions for the professionalisation of the local early years workforce are already in place. All that is required is the political will to implement this; with due consideration for pay and employment conditions and for the establishing of a clear career path. This paper argues that not having graduate educators does not respect contemporary values, nor is it consistent with, contemporary attitudes about the rights of children; particularly with regards to children's right to access to quality education. The weak professional identity of the Maltese Early Years workforce contrasts with that of other professionals associated with young children; such as teachers, psychologists and social workers. The failure of successive governments to recognise that educators of very young children ought to be trained, accepted as professionals with expectations of them of that are professional, are in part, a consequence of various policy tensions. Tensions that invariably lead to deep-rooted misunderstandings about the value and importance of play. In this paper, the author argues that the failure to address these tensions with a view to improving the training and employment conditions of Early Years educators is not only a disservice to the current workforce of kindergarten assistants but also to society, and perhaps most importantly of all, to its current and future generations of children.

Keywords: early years, education, care, schoolification, play

Rationale

This paper considers the missed 'play' and 'de-schoolification' opportunities that the Maltese education system has experienced with regards to not appropriately addressing the professionalisation of the local kindergarten/preschool workforce. Hence, the position adopted by this paper is that due to downward pressure from the primary school the concepts of 'education' and 'care' are split consequently 'schoolifying' early childhood education. This paper sets the scene by discussing the importance of quality preschool provision, which for the purpose of this paper, is generally limited to the kindergarten years (3 to 5 years). Then the author outlines a paradox. The paradox of how quality early education yields long-lasting positive life benefits to children, as well as, to the economy, yet early years educators generally

remain poorly paid and poorly considered across the globe. Following this, the paper describes how early childhood education first developed in Malta from an economic need for its provision. It was only later, particularly with the National Minimum Curriculum (1999) milestone that issues relating to the quality of educational provision of young children began to be increasingly considered. This paper concludes that a re-construction of the term quality is required to 'de-schoolify' kindergartens in Malta and to stop missing policy opportunities that may serve to reconcile the 'education' and 'care' split. This paper considers that it is critical to view play as a tool for joyful, meaningful and developmentally appropriate early development and learning. Also, a primary aim of early education and care should be to socialise children as individuals within a shared environment.

Introduction

Important studies across the globe provide evidence of the long-lasting positive effects for children who experienced quality preschool education (Apps, Mendolia & Walker, 2012; Cote et al., 2013; Nores et al., 2005, 2006; Schweinhart, 2007; Schweinhart & Weikart, 1999; Sylva et al., 2004) and with escalating positive effects for children experiencing higher levels of quality provision at age fifteen (15) (Vandell et al., 2010). Locally as well as further afield, access to good quality education and care of young children is a service that many families seek to have. It allows mothers in particular to remain and/or seek employment after the birth of their child. Early childhood education is increasingly becoming recognised as a right that all children should enjoy. The Organisation for Economic Co-operation and Development (OECD) envisions the role and function of early childhood education in broader more holistic terms such as offering opportunity for young children to: 'learn to be', 'learn to learn' and 'learn to live together' (OECD, 2016, p. 219) Increasingly also, at least within Westernised societies, and especially within Europe, there exists an increased harmonisation of curricula.

The increased harmonisation of early years curricula across Europe (Sahlberg, 2012; Kampmann, 2013) serves to highlight two predominant positions in which early childhood education is constructed; the 'social democratic' and the 'school readiness' positions (OECD, 2006; Broogard Clausen, 2015). The interim space between these two positions implies a tension between those who consider early years learning on broader developmental and learning goals and those who consider it a requirement for young children to acquire skills that are school-like (Ringsmose, 2017). The Nordic social democratic position focuses on equality, emancipation, autonomy and self-governance and is rooted within a concept of democracy for the early years (United Nations, 1989). This position is also steeped within the related concepts of personal and professional autonomy (Pramling Samuelsson, 2004). Culturally, the Nordic social democratic position is also deeply woven within a broader pedagogical discourse (Broogard Clausen, 2015) about the ideal for a happy and harmonious child (Koch, 2012). The United Kingdom, to which Malta has historically been closely affiliated to, the predominant position is that of school readiness. The OECD (2006) aligns the 'school readiness' with the 'early education' position; considered as prevalent in England and France. Early education as position is associated with a neo-liberal discourse that incorporates within it debate about accountability and 'schoolification' (Broogard Clausen, 2015).

This implies a concept of early education that 'preschools' young children in preparation for their school career ahead. This preparation for school diminishes the legitimacy of early education (Jensen, Brostrom & Hensen, 2010) as a time for play. During these last four decades, the Maltese state has provided free kindergarten education to children aged 3 to 5. In this way, many where the mothers who could seek employment when they previously would have found it much

more difficult to do so. Increasingly, the private sector has steadily come on board in offering kindergarten services. This is also linked with changes in attitude towards female employment, shifts in economic conditions and the possibility of flexible hours of working. Now, nearly all children in Malta between the ages of 3 to 5 years attend kindergarten (Mifsud et al., 2000, 2005; Gatt, 2012; Said, 2013). Increasingly, the demand in Malta and Gozo for the provision of nursery or childcare services to children between the ages of 3 months to 3 years, has also been on a steady increase. This largely because in 2014, government facilitated access by subsidising childcare. The provision of accessible kindergarten and day-care provision, was in fact a Barcelona (2002) target. This European Union (EU) local-specific recommendation for the Government of Malta was to: 'enhance the provision and affordability of more childcare and out-of-school centres, with the aim of reducing the gender employment gap' (p.16).

As I write this paper for the 40th Anniversary celebrations to commemorate the establishment of the Faculty of Education, I dwell about the positive aspects of facilitating access to quality kindergarten education, and increasingly child-care, to Maltese children and to their parents. At the same time, I also recognize that the provision of such facilities has at times been achieved at the cost of quality. A rather simpler notion of quality that is more focused on a concept of achievement, even for very young children, instead of valuing more so play and recognizing this as central to the education and care of children. The author adopts the stand that the largely incomplete professionalization of the Maltese early years sector is partly due to the 'schoolified' nature of early education and care within Malta. This paper holds the position that the de-schoolification of the early years and the professionalization of the early years' workforce need to operate in tandem.

There has to be an orchestrated effort to germinate and nurture a 'deschoolified' culture, both within the community of early childhood practitioners, parents, policy-makers and broader Maltese society alike, to bring together the currently separate strands of 'education' and 'care', 'play' and 'learning' with 'socialisation' and 'readiness' together under the umbrella of the early years. This 'de-schoolification' is unlikely to take root and grow if the local early years workforce is not able to think autonomously, independently and in an appropriately critical manner.

Contradictions in Early Childhood Education and Care

Providing education and care for the globe's youngest citizens is becoming increasingly disentangled, in Westernised societies, from issues relating to female employment. Increasingly, the focus is that child development and learning are central to the early childhood discourse (Flanagan, 2012). It is positive and beneficial for children's cognitive and social development to attend nursery and preschool; suffice that such provision is of quality. Though all children are ready to learn (Kagan, 1990), quality early education increases children's prospects for learning (Reynolds, 2011, 2012). Early education prepares children for the more structured environment of the school (Britto, Jung Rana & Wright, 2012). There are those who argue that this 'schoolifies' early education (Broogard Clausen, 2015; Ringsmose, 2017) and that curricula with prescribed outcomes for learning are based on a positivistic, regulatory, high stakes (Moss, 2017) and neo-liberal discourse (Brehony & Nawrotzki, 2011). A 'discourse of manuals' even in the early years (Jensen, 2005). Notwithstanding, the tensions regarding the implementation, delivery and investigation of early childhood education, many studies that quantify the development and learning of children in high-quality early education programmes show that these children are more likely to gain entry to tertiary education, earn more as adults (Schweinhart & Weikart, 1999, Nores, Belfield, Barnett & Schweinhart, 2005, 2006) and are less likely to engage in criminal behaviour (Schweinhart, 2007) than children who have not had this

benefit. The effects on children's development are not only positive but also lasting long (Cote et al, 2013), well into primary school (Sylva, Melhuish, Sammons, Siraj-Blatchford & Taggart, 2004), through to adolescence (Apps, Mendolia & Walker, 2012) and beyond (Nores et al. 2005, 2006). High quality early education is also more equitable for all children in that it boosts early learning for children with special educational needs (Anders et al., 2012; Deborah & Meloy, 2012). In spite of such compelling evidence about the importance and positive effects of early years' education, associated workers generally remain poorly paid and with little incentive for professional development.

The Issue of Quality

Quality is value-laden and with two orientations that involve structures as well as processes. The concept 'quality' is widely discussed, differently understood and assessed (Pianta et al., 2005). At a simpler level, quality can be understood as a multidimensional construct which is assessed using a variety of statistical techniques and on the basis of pre-determined indicators. Quality is more easily 'measured' through the more quantifiable structural characteristics and, in relation to the early years, when examined in relation to a predetermined and prescribed set of child outcomes.

Quality can also be constructed in a more complex manner whereby the environment is related to child outcomes in the academic and social domains (Love, Meckstroth, & Sprachman, 1997). Consequently, it is more comprehensive to conceptualise quality as composed of different constructs and at different levels of analysis (Pianta et al., 2005). A more complex and more comprehensive way to define quality is '...by the structural and process characteristics that are thought to nurture child development' (Slot, Leseman, Verhagen, & Mulder, 2015, p.64).

Quality is primarily conditioned by process factors that are mediated by structural preconditions. Process quality refers to children's daily experiences and includes the different aspects of children's activities and interactions (including the social/affective, cognitive and physical) with other children and adults (Bronfenbrenner & Morris, 1998; Howes et al., 2008; Thomson & La Pianta, 2009). Structural quality refers to characteristics such as group size, children/teacher ratios and qualifications (Howes et al., 2008). Structural characteristics are considered as important preconditions for process quality (Vandell, 2004; Pianta et al., 2005). Structural quality is more easily quantifiable and consequently tends to serve as the main objective of regulation and curricula (Bennet, 2005). It is however limiting to consider quality largely in terms of structural factors given that the benefits for children, and society, are more dependent on process factors (Vandell et al., 2010; Slot et al., 2015). The evidence for a strong relationship between structural and process quality is likely to be mixed.

A study that takes into account both structural and process factors in relation to child outcomes is The Effective Provision of Preschool Education (EPPE) study. EPPE shows that higher proportions of staff with higher-level qualifications were amongst the key explanatory factors associated with quality preschool provision as evidenced by better child outcomes. Conversely, higher proportions of staff with low-level qualifications were associated with less favourable child outcomes (Siraj-Blatchford, 2010). Yet, qualifications alone do not guarantee better child outcomes.

In fact, the EPPE study also discovered that it is not necessary for all staff to have high-level qualifications. Less qualified staff working alongside highly qualified staff were also positively influenced in their behaviour with children (Sammons, 2010). The quality of interaction amongst staff, a process factor, is likely to be conducive to quality within preschools and is thus likely

to improve the possibility of children achieving improved outcomes. This also implies that the relationship between staff qualifications and child outcomes is neither simple nor direct (Early et al., 2007). Whilst the relationship between qualifications and process quality is not a straightforward one, working conditions, which are structural in nature, including remuneration, influence more directly the quality of provision (Shonkoff & Philips, 2000).

Good working conditions bear implications both for the shorter and the longer-in-term paths that early years educators are likely to follow. The European Commission's Early Matters symposium (European Commission, 2009) concluded, that next to the important issues of qualification and education, working conditions were just as important in providing a safe and healthy environment for children.

Kindergarten Provision

Since the mid-1970's, kindergarten education has been freely offered by the state sector for children aged between 3 to 5 years. The author considers the Maltese case as peculiar in that in spite of quasi-universal attendance of children in kindergartens and with ever-increasing numbers of children in child-care; the system remains split (Sollars, 2014). In Malta, the split between the education and care elements may be linked to different reasons. An important reason is that both kindergarten education and provision of child-care services were primarily based on government initiatives to increase the number of women gainfully occupied. Other than a split between education and welfare policy, there also appears to exist a deeper cultural split as to the way in which local society constructs childhood and the increasingly outcomes-driven aims of education. The author upholds that in terms of provision this begins with the poor working conditions and the low status of individuals working with young children. Workers who are perceived as technicians who are told what to do and how to do it rather than as professionals who are competent and capable of sustaining development that supports and fosters learning through play-based experience. This situation is reflected by the qualifications and training of kindergarten assistants and child-carers as well as by curriculum standards.

Qualifications and Training

Qualifications are important and lack of is related to perceptions of low status. Entry qualifications of both kindergarten assistants and child-carers are low (Sollars, 2014). In Malta, kindergarten assistants is the term assigned to individuals who are responsible for the education of young children (3 to 5 years). This term is a misnomer in that such individuals do not assist anybody. Although over the decades the qualifications required for an individual to qualify as a kindergarten assistant have improved, they cannot be called teachers because their training does not qualify them for professional status. Moreover, the majority of individuals who achieved a Bachelor in Education (ECEC) have not been placed with children aged 3 to 5 years. Yet, and rather interestingly, a simple comparison of job responsibilities between kindergarten assistants and teachers strongly suggests that kindergarten assistants are required to fulfil roles and responsibilities that are professional in nature (Appendix 1).

Table 1 outlines the manner in which over the decades, a number of initiatives have been undertaken, with the aim of improving the skills and/or the qualifications of kindergarten assistants. Since 1975 and prior to 2003 the training of kindergarten assistants remained the responsibility of the then Education Division. The certification of kindergarten assistants was essentially unregulated in terms of control of quality that was more independent from the Ministry of Education. Since 2003, the vocational college the Malta Council for Arts, Sciences and Technology (MCAST) started to offer a two-year level 4 course in Early Childhood Education

and Care. This course replaced the training offered by the Education Division. This course now became the route to those wishing to train and practice as kindergarten assistants. Pegging the qualification of kindergarten assistants by the Malta Qualifications Council (MQC) also implied an increased focus towards issues related to course quality. Now, training of kindergarten assistants was pegged in European terms and offered by an educational institution that was relatively more independent from government. In 2007, the then Nationalist Government agreed that from 2015 onwards kindergarten assistants would require a qualification in teaching (Sollars, 2014); which at the time implied a level 6 first degree qualification. Since 2009, the University of Malta has recognised its role in providing opportunities individuals to train as teachers with a focus on early childhood education and care.

Table 1: Qualifications and Training of Kindergarten Assistants in Malta

Year	Qualifications & Training
1975	Not qualified in early years. First two major employment waves. The first in 1975 and the second in 1988.
1990	Four Ordinary levels including mathematics, English and Maltese. Six to eight weeks on the job training.
1991	The then Education Division offers a two-year course leading to a certificate in preschool education.
2003	Two year course now replaced by a two year level 4 course offered by the Malta Council for Arts, Science and Technology (MCAST). MCAST also offered a level 5 Higher National Diploma (HND) course for students wishing to further their studies in the early years.
2006	Kindergarten assistants with 15+ years of service were required to upskill. Kindergarten assistants with: 15-19 years in service were required to attend 210 hours of training, 20-29 years 140 hours of training and 30+ years for 70 hours of training. Following training these kindergarten assistants were assimilated into the KGII grade.
2009 - 2011	Part-time level 6 undergraduate courses offered by the University of Malta (UOM) leading to a Bachelor in Education in Early Childhood Education and Care (B.Ed, ECEC).
2013	A four-year full-time level 6 course offered by the UOM leading to a B.Ed (ECEC). Students from MCAST with an HND qualification now allowed to join in the third year of the B.Ed (ECEC)
2017	A three-year full time level 6 course leading to Bachelor in Arts (Early Childhood Education) offered by the UOM to replace the B.Ed (ECEC) (teachers now required to qualify at a level 7 (Masters) level).

Curriculum

The curriculum, and its implementation in the early years, is an area that requires constant attention. Prior to the NMC in 1999 there was no curriculum which kindergarten assistants, or for that matter primary school teachers, could follow. Although at the time the NMC was a first for the Maltese educational system it instilled a 'one-size-fits-all' attitudes. The NMC was prescriptive as for the early years since it did distinguish clearly enough what young preschool children should accomplish as separate to the intended achievements of primary education. An attitude that was perhaps influenced more by the exigencies of primary education rather than by the playful needs and interests as a motivation for learning. In the NMC, the development of children is constructed as if happening in a consistently linear fashion incorporating the intellectual, socio-emotional, physical, moral, creative and religious dimensions of learning. The importance of quality principles, particularly those relating to play, are not central to the discussion. The implementation of the NMC favoured a curricular situation that did not support a multi-sensorial pedagogical approach (Sylva, 2004) that incorporated a broad range of activities (Moyles, 2014) and based on the principles of reflective practice (Bennett, 2006) with play as the underpinning strategy for reflection (Callan, 2010).

A first real curriculum for the early years was drawn-up in 2012 with the National Curriculum Framework (NCF). This framework includes five outcomes which early years education should achieve with children developing: (1) a strong sense of identity, (2) a positive self-image, (3) social adeptness, (4) effective communication, and (5) as positively engaged and confident learners. A positive curricular development is that this framework does not specifically detail content. A less prescriptive curriculum allows kindergarten develop their own programme of activities. The curriculum framework for early years in the NCF also highlights the four years, with the first two of these years referring to the kindergarten years. One would have expected that following the NCF a next curriculum accomplishment for the early years would be to recognise the principles underlying quality preschool provision and to cater for this in a fashion intended to integrate with the NCF with the added aim of extending its curricular remit. A curricular feature of high quality provision is that *'the strongest early childhood programs have...clear well defined principles... understood by teachers, families and the communities'* (Victorian Curriculum and Assessment Council, 2008, p. 47).

The next development was the Learning Outcomes Framework (2017) known by the acronym LOF. On its website the Ministry for Education and Employment describes the aim and the intention of the LOF as follows:

The aim of the Learning Outcomes Framework is to support the National Curriculum Framework (NCF). The NCF...proposes universal education entitlement built around eight Learning Areas, inspired by the EU eight Key Competences Framework. It also proposes a Learning Outcomes Framework as the keystone for learning and assessment throughout the years of compulsory schooling. Both the NCF and the LOF...will serve as national benchmarks of excellence for all schools, providing parents, teachers and other stakeholders with an understanding of what children and young people should know... The aim of the Learning Outcomes Framework is to free schools and learners from centrally-imposed, knowledge-centric syllabi...

In alignment with its NCF predecessor, the LOF framework views the early years as separate to the primary years. Also and rather positively the early years of education are viewed in this document as ranging from age 3 (kindergarten I) through to age 7 (Year 3). This implies a

continuum that includes the two kindergarten years (age 3 and 4) as well as the first two years of formal primary education (age 5 to 7) As the name suggests, this framework lists a number of outcomes that children are to achieve during their early years. The achievements, which are related to the five broader outcomes listed in the NCF, are further detailed in terms of more specific outcomes for assessment. Table 2 describes the connection between the five broader NCF outcomes mentioned, the related achievements now extended by the LOF with an example of what the author terms ‘specific outcomes’.

Table 2: From NCF to LOF

Broader Outcome (NCF). Children who...	Related Achievements (LOF). Children who...	Example of a Specific Outcome. I... (Total number of outcomes)
develop a strong sense of identity	develop in a safe, secure environment which they can trust	show comfort in exploring my environment (9).
	develop a sense of independence/ autonomy	am confident to initiate play (6).
	become responsible and resilient in the face of challenges.	persevere in the face of challenges (2).
have a positive self-image	believe in themselves fully aware of their potential/capabilities	take an interest in the world around me (4).
	develop positive attitudes which enable them to take the initiative and become risk-takers	am competent/confident to ask questions and make discoveries (2).
are socially adept	capable of establishing relationships with others	can take turns in interactions (6).
	develop empathy, respect and acceptance of different points of view	am interested in other people and their stories (6)
	learn to collaborate with peers/ adults with diverse backgrounds/ needs	invite all peers to join in my play irrespective of their backgrounds (3).
are effective communicators	capable of using different forms of media for communication	join in rhymes, songs, poems, and jingles (4).
	interact/engage with varieties of text/printed material increasing their awareness of purposes/ functions	show interest in books and print in my environment (6).
	familiar with symbols/patterns and their use	recognise my own name/symbol on personal belongings (6).
	aware of different language systems, notably L1 and L2	hold simple conversations in L1 (5).

Broader Outcome (NCF). Children who... (continues)	Related Achievements (LOF). Children who... (continues)	Example of a Specific Outcome. I...(Total number of outcomes) (continues)
	engage with digital literacy as a means of retrieving data/ representing/ communicating ideas	can use technology around me e.g. press buttons, use remote controls, etc (2).
	versatile with the use of numbers, data handling, shapes and measurement, and print in context as a means of production of knowledge/information, as well as meaning-making comprehension	relate to numbers in conversation and rhymes (6).
nurture positive attitudes towards learning and become engaged/ confident learners	develop a range of cognitive skills including: labelling/identifying/ recognition/sorting/hypothesising/ predicting/comparing/sequencing and grouping	recognise/label common objects (6)

The LOF should be viewed as a welcome assessment addition to the curriculum. Nonetheless the LOF requires particular and sensitive implementation due to tension between Government, the Malta Union of Teachers (MUT) and teachers. The author speculates that a few undesirable side-effects are likely to follow particularly in view of the fact that the NCF (2012, p. 5) envisions a ‘continuum of achievement’. It must be said that this principle is, at face value, written with the aim of allowing children to secure their own path to learning regardless of their ability. Yet, the terms ‘achievement’ and ‘ability’ link with an outcome-based type of discourse. A first likely side-effect is that this will consolidate an already existent ‘league-table’ mentality that is already rooted in many primary schools with teachers teaching children for the test and parents pushing children to achieve better than others. A second likely side effect is that given local culture, and the emphasis on academic achievement and the societal push towards the acquisition of formal reading, writing and number skills, this ‘one-size-fits-all’ mentality is also likely to root itself further within kindergartens. A third likely side effect is that this will decrease even further local recognition about children’s need for play. There is the danger, that learning outcomes will be interpreted as the introduction of even more new standards. Standards that are likely to make themselves manifest through experiences/activities that are not play-based and which are likely to stifle the expression of creativity and imagination in children with the risk of demotivating children from exploring and engaging meaningfully in their learning. These three side-effects are likely to be mitigated in the event of increased awareness about how local early years education is ‘schoolified’ and with the onset of a number of actions intended to reverse this ever-increasing course.

Triggering De-Schoolification

Triggering a ‘de-schoolification’ process in the early years implies a decreased focus about achieving, achievement and outcomes and concurrently implies an increased focus about accomplishments and positive accomplishing experiences. Triggering ‘de-schoolification’ also

implies a change about how quality is constructed and what it means for the early years. In 2014, Sollars (2014, pp.8-9) listed seven recommendations as a way forward for the development of national policy in the document *Early Childhood Education and Care in Malta*: These include: (1) re-conceptualising the early years, (2) providing for an integrated rather than a split system, (3) registration and accreditation of early years settings, (4) quality matters, (5) staff training and qualifications, (6) accreditation of courses and (7) curricular programmes and activities. Of these recommendations, three refer to issues that are more process-oriented. These refer to: a re-conceptualisation of the early years, the centrality of quality and the importance of the curriculum. It is these three recommendations that the author seeks to move forward with.

The author considers that these three process-oriented recommendations ought to come together in a hierarchical quality-driven fashion. This implies that issues related to re-conceptualising or the re-envisioning of perceptions, attitudes, values and understandings of early years education and care needs to be driven first by process quality then by structural quality. Similarly, a curriculum envisioned as a plan for education, care, development and learning throughout the spectrum of the early years, from child-care to kindergarten to the early primary school (0 to 8 years), also needs to be driven first by issues related to process quality. Essentially, a re-envisioning of the early years and the aims of early years education and care demands a re-envisioning of what quality means and how quality is implemented. A re-envisioned local-specific quality for early years education in Malta must now include: (1) re-imagining 'education' and 'care' elements as a sea of 'the early years' sitting on a world where children play joyfully because this is their tool to navigate learning, and (2) re-ordering the importance of 'readying' young children for school over that of preparing children for life by de-emphasising readiness and achievement whilst emphasising socialisation and accomplishments.

Re-Envisioning Quality

To re-envision quality one needs to go back to its roots. Earlier in this paper, the 'school readiness' approach to early education was associated with a central and more academic curricular strategy. The social approach steeped within Nordic and/or integrated traditions is associated with a holistic approach that integrates both the education and care dimensions. This democratic approach incorporates values and ways that are local and child-centered (Jensen, Brostrom & Henson, 2010). Quality is central to both these early education approaches. Yet the interpretation of what quality implies differs given the different ways in which processes associated with the development and learning of young children are considered and constructed differently depending on whether one adopts a 'democratic' stance or a 'readiness' stance. The author argues that to better prepare children for life, of which schooling forms only but a part, albeit an important part, during their early years children must learn to enjoy the experience of learning. Play is the means by which children engage with their environment in a meaningful way (Moyle, 2014). To provide kindergarten settings that are enabling to children one must first empower their carers; in our case kindergarten assistants. Empowerment demands pedagogy. A pedagogy that refers to practice that employs knowledge and skills that strategically promote children's learning (Dalli & White, 2016). A pedagogy that incorporates interactive processes amongst three critical elements: the teacher, the learner and the learning environment (Siraj-Blatchford, 2004). A learning environment which is acted upon by the teacher (or kindergarten assistant) and the learner. The author recommends that in order to better accomplish this re-envisioning of quality in which accomplishment is considered as more important to achievement individuals who educate and care for children in kindergartens need to be able to meaningfully engage with pedagogy and to recognise that children need experience the joy of play as a means of discovery, exploring and interacting with their environment; which is inherently social.

A Professional 'Educare' Workforce

Acknowledging that young children need accomplishment over achievement and that they need to socialise more instead of narrowly being prepared for school implies 'educare'. 'Educare' as concept is understood by the author as integrating in a holistic and dynamic manner the concepts of 'education' and 'care'. 'Educare' demands that individuals working with young children care for children in a manner that considers play as natural and meaningful to children. In this way, the 'educare' workforce needs to be competent to an extent in which they are able to face, fend off and ideally reverse the downward pressure from primary school to prepare children in a more formal manner; usually with regards to literacy and numeracy.

This requires a better educated workforce who are capable of standing their ground and who are competent in terms of training and formation to be able to do so. This implies a professional early years' workforce. A threat to the legitimacy of the early years' workforce, is that this is considered by many as an occupation rather than a profession. It is useful for the reader to note that here, professionalization is considered as a movement that seeks to establish a graduate workforce.

Sollars (2014, p. 65) recommends that: 'ideally all practitioners working in early years settings are qualified with at least a first cycle degree, it would be practical to aim for a situation where the majority of the work-force is trained to the highest level.' Professionalisation can offer a solution to resolving the tension between quality provision and improving conditions for the workforce (Boyd, 2013). Professional recognition implies that the work is intellectual and high in responsibility, requires training and learning because it is based on a specific knowledge base and part of an educational discipline, is practical as well as theoretical, is well structured and internally organised and motivated by altruism (Moloney, 1992). Professional standing also requires settling 'what needs to be learnt' and 'how this should be learnt' to achieve this status and consequently improve working conditions (Darling-Hammond, 2009); particularly remuneration. Poor remuneration impacts on quality of practice and feed-backs into educational policy and threatens professional legitimacy (Culkin, 1999). Consequently achieving professional status and improving working of the local kindergarten workforce should be high on the policy agenda. Yet, it is essential that professionalization and improvement of working conditions are driven by a movement to establish a workforce of nurturing educators who care enough to educate children in a developmentally appropriate manner and in the interest of the child first, then parents, schools and society later. There is a danger that too much preoccupation with qualifications can silence the importance of knowledge (Campbell-Barr, 2018). Consequently, the change from occupation to profession must be accompanied by a shift towards a socially relevant and value-laden knowledge base coupled with a sense of autonomy, commitment and community (Moloney, 1992). This implies that in Malta the education and care strands need to come together in terms of the knowledge and skills-base. Moreover, such knowledge and skills need to be practically implemented and integrated through democratic, social, play-based activities that support and foster learning. Particularly, this implies that early years' professionals need to be intellectually autonomous and capable of acting in the interest of the child. If need be going against the dominant discourse when this does not serve, or only pays lip-service, to the child's interest and to children's rights. Essentially they must be pedagogically and methodologically equipped to defend play and to make space for play in an already crowded curriculum.

Making Space for Play

Play is central to children's lives but today the ever-increasing intention to view the early years as an opportunity to 'ready' children for school poses the greatest threat to a play-based

curriculum. Now, more than ever, Malta needs advocates who similarly to Wong and Logan (2016, p.7) ‘understand play’s potential for supporting both societal aims and children’s learning and development, who understand play’s place in the early years’ curriculum and who are able to promote children’s right to play.’ During play, children are dealing with what it means to be (Stetsenko & Ho, 2015, p. 224):

...a unique individual in an essentially communal world shared with others. The paradox involved is that human beings are singular and unique individuals, yet they are also profoundly relational and deeply social...this is about human beings realizing their freedom and becoming individually unique while doing so within the inalienable bonds that tie them together with other people, all on the grounds of a profound, ever-increasing blending and meshing of one’s own ways of being, knowing, and doing with those of others.

The early years’ curriculum in Malta is already crowded with a variety of outcomes and areas for development and achievement with little direct reference, or conceptual space, for play. A situation which is also reflected during the increasingly play-less kindergarten day given that the kindergarten day is already heavily prescribed with literacy and numeracy activities and with other planned activities such as outings. Increasingly, the kindergarten years are also being seen as an opportunity to identify childrens’ special educational needs prior to their entry to formal education at age 5. Whilst such activity is not necessarily all detrimental, it does detract precious time, from an already short kindergarten day, during which children are able to engage in free, creative and unhindered play.

At this point, it is interesting to point out that the threat to a play-based curriculum is happening at a time when play is being threatened in situations outside of educational institutions. Many are the parents who complain that their children are not playing in the same free, unfettered and social manner that they themselves used to. This loss of play is due to other competing activities such as extra-curricular activity and game/technological activity and with children generally leading an increasingly planned and sedentary lifestyle. Though tension about the role that adults play in connection play within educational settings is likely to continue, it also remains undisputed that play should be valued and recognised as the critical pedagogical tool that it is. In Malta, this implies that those who work with, care for and desire children’s learning need to dedicate longer periods of time to harness different types of play through appropriate activity that promotes engaged and active learning.

Conclusion

Especially since 1999 there have been many missed opportunities to ‘de-schoolify’ the early years or to devise educational caring strategies to counteract the downward pressure from primary school. Though the NMC was an important curricular first for Malta it did not distinguish the early years as separate from the primary years. This likely germinated, policy-wise, a stronger and more formal instance of pressure downward from the primary school to the kindergarten years. Later on the NCF with its broader outcomes for learning specific for the early years offered a first opportunity to nurture a holistic pedagogical approach to the education and care of young children. An approach in which the focus should have been less on achievement than accomplishment. Through the more recent LOF document, Maltese policy continues to secure and align itself with the ‘readiness’ for school position. A position which is likely to threaten and detract from the importance of play-based learning and a play-based curriculum. The author strongly argues that in the absence of written policy guidelines concerning quality principles for

the early years in Malta the current 'schoolification' process is only likely to continue, heighten and root itself further. Even then, it is unlikely that quality principles will take sufficient root to mitigate, or better still reverse, 'schoolification' if principles of quality practice in the early years do not happen in tandem with processes to professionalise the workforce. Moreover, any professionalization drive has to be fuelled by sufficient levels of care to meaningfully educate the early workforce about play, as well as, processes that value what children are able to accomplish more than what children are able to achieve.

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Appendix 1: Comparing the job responsibilities of kindergarten assistants and teachers

Duties	Kindergarten Assistant	Primary School Teachers (including Early Childhood & Care)
<p>Planning, preparation, continued development and collaboration</p>	<p>Planning, preparing and carrying out educational activities which stimulate, foster/develop the child's abilities; including personal/ social attitudes and values, autonomy and intellectual curiosity.</p>	<p>Planning, preparing and delivering lessons to all students in class.</p> <p>Teaching according to the educational needs, abilities and achievement of students.</p> <p>Ensuring that schemes of work are handed to the LSA in good time so that the necessary adaptations/resources are made for use with students with individual educational needs.</p> <p>Together with the Learning Support Assistants, developing and implementing the Individual Educational Programme of students with educational needs and participating in the Individual Transition Plan meetings.</p> <p>Participating in and contributing to MAPS and IEP conferences and reviews students with statements. Collaborating with parents, SMT, Inclusion Coordinators and other stakeholders.</p>
	<p>Developing/implementing schemes and activity plans in respect of the early childhood education foundation stage.</p>	<p>Reviewing/evaluating one's own teaching/learning strategies, methodologies and programme/s in line with the National Curriculum Framework.</p> <p>Liaising/collaborating with specialist teachers/resource persons and professionals working with students with statements.</p>
	<p>Implementation of the school development plan.</p>	<p>Implementation of the school development plan.</p>

(cont.)

Duties	Kindergarten Assistant	Primary School Teachers (including Early Childhood & Care)
<p>Planning, preparation, continued development and collaboration (cont.)</p>	<p>Participating in:</p> <p>school-based staff development sessions and in School Development Planning.</p> <p>further training and on-going professional development.</p> <p>mentoring sessions led by the Head of Department and/or the Assistant Head/Head of School;</p>	<p>Participating in:</p> <p>In-Service education and training courses as well as in continuing professional development opportunities, and taking part in action research exercises.</p> <p>Contributing to the professional development of new teachers and student teachers according to arrangements agreed with the Head of School.</p>
	<p>Advising and collaborating with the Assistant/Head of School, Assistant, other KGA's, Learning Support Assistants and education officials in the preparation and development of educational... materials and programmes of work.</p>	<p>Advising and co-operating with the Assistant/Head of School, Heads of Department, Education Officers, and other teachers in the preparation and development of courses of study, teaching materials, teaching programmes, methods of teaching and assessment and pastoral care arrangements.</p>
	<p>Encouraging participation in EU projects and other projects in accordance with targets and as agreed with the Senior Management Team.</p>	<p>Encouraging participation in EU projects and other projects in accordance with the SDP targets and as agreed with the Senior Management Team.</p>
<p>Environment and Delivery of Learning</p>	<p>Organising and developing the kindergarten learning environment, visual aids and teaching and learning resources so as to foster enthusiasm for learning and help children achieve early learning curriculum goals.</p>	<p>Making use of audiovisual technological devices/aides... and other adaptations during lesson delivery.</p>
	<p>Carrying out age-appropriate activities to promote literacy through creativity and self-expressive arts...</p>	<p>Promoting the general progress and well-being of individual students, groups of students or class entrusted to him/her;</p>

Duties	Kindergarten Assistant	Primary School Teachers (including Early Childhood & Care)
Environment and Delivery of Learning (cont.)	Providing opportunities for pupils to socialise with peers and adults...	
	Enabling children to develop their gross motor control skills and physical capabilities so that they become independent according to their age;	
		Teachers should view themselves as facilitators of learning/reflective practitioners;
Observation and assessment	Observing, assessing and recording the children's development, progress and behaviour;	Assessing, recording and reporting on the development, progress, attainment and behaviour of students. Assigning, correcting and marking students' work. Regularly discussing and monitoring the work being carried out by the LSA in class.
	Contact is also to be established with the Year 1 teacher. Individual assessment records constitute an important element of the transition; including children with a disability.	
		Contributing to oral and written assessments, reports/references relating to students.
		Participating in arrangements within an agreed national framework for the appraisal of students' performance;

(cont.)

Duties	Kindergarten Assistant	Primary School Teachers (including Early Childhood & Care)
Well-being	Providing supervision and help during meals, un-/dressing and toileting.	<p>Maintaining good order and discipline amongst students and safeguarding their health and safety at all times.</p> <p>Registering/monitoring student attendance.</p>
	Maintaining high standards of professional practice and behaviour as well as order and discipline among children under one's care thus safeguarding their health and safety at all times and locations;	<p>Ensuring high standards of professional practice and quality of teaching and learning.</p> <p>Sharing in the effective management, organisation, order and discipline of the school.</p>
	Facilitating an effective transition process between child care and kindergarten, and between kindergarten and primary years.	
	Establishing contact with parents prior to a child starting kindergarten...where appropriate, visiting providers of preschool care...to gain a better understanding of the child.	<p>Communicating, consulting and co-operating with other... staff, including...parents/guardians to ensure the best interest of students.</p> <p>Ensuring that a Contact Book is daily updated with the necessary information including parents' signature in the case of relevant students with special educational needs.</p>
		Promoting the general progress and well-being of individual students, groups of students or class entrusted to him/her;
		Providing guidance and advice to students on educational and social matters.

Section I
IDENTITY, PROFESSIONALIZATION
AND TOMORROW'S TEACHERS

**Assessing the Field Placement in Initial Teacher Education:
Finding a Balance Between Formative and Summative Assessment.**

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Abstract

The research study reported in this paper explores the issues and challenges faced by teacher educators when assessing student-teachers during their field placement. The key research question is: What are the issues and challenges faced by teacher educators and university administrators in relation to the formative and summative assessment of student-teachers during their field placement in Initial Teacher Education? The research tries to address this question by drawing on qualitative data from interviews with key academics and administrators at the University of Malta. The data from the interviews suggests that finding a balance within a university setting between the formative and summative aspects of assessment can create a potential conflict. This results in teacher educators focusing more on administrative demands for accountability and standards through summative assessment (also known as 'assessment of learning') rather than on the learning process through formative assessment (also known as 'assessment for learning'). Through this paper the authors challenge this current view and, using examples from good practice, construct a model of assessment for the field placement that tries to improve the balance between formative and summative assessment.

Key words: formative assessment, summative assessment, field placement, initial teacher education.

Introduction

The field placement (also known as 'teaching practice' or 'teaching practicum') is considered to be a key factor in effective Initial Teacher Education (ITE) programs (Beck & Kosnick, 2002; Darling-Hammond, 2006), as it provides an opportunity for teaching competence to be developed within an authentic learning community. The field placement, however, has a double role. First of all, it is 'an educative practicum' (Zeichner, 2002) where student-teachers can practise skills, develop competencies, try out new ideas and reflect on the construction of their teacher identity through interaction with teachers, fellow student-teachers and teacher educators. Secondly, it also serves as a summative evaluation of whether the student-teachers have achieved the required competencies that will allow them to be certified as teachers. This creates a number of challenges for teacher educators, as they have the dual role and responsibility of facilitating student-teacher learning and evaluating teaching competence (see Tang, 2003). While the first role is strictly

professional, the second adheres to strict administrative guidelines and expectations. The main research question addressed in this paper therefore is: What are the issues and challenges faced by teacher educators and university administrators in relation to the formative and summative assessment of student-teachers during their field placement in ITE?

The Research Problem: Tensions between Formative and Summative Assessment

The research problem emerged from the tensions experienced by the authors as teacher educators, particularly in their role as mentors and/or examiners of student-teachers during their field placement. The authors found the assessment of the field placement to be more problematic than traditional academic assessment (see Sharp, 2006). In reaction to this, drawing on a social cultural theoretical framework (see Rogoff, 1990; Wenger, 1998), the authors developed a view of assessment as a cultural activity where student-teachers negotiate their identities “through guided participation in a system of apprenticeship” (Rogoff, 1990, p. 155). The practicum assessment was envisaged in fact, as a process that was “being done with and for the student” (Klenowski, 2009, p. 89). This helped the authors to construe the assessment of the field placement as a formative experience which involves a two-way communication process between themselves and the student-teachers, and includes opportunities for learning from feedback and reflection (see Darling-Hammond & Snyder, 2000). Similar to Zeichner (2010), the authors viewed the field placement experience as an opportunity for professional development and not only as a time for student-teachers to demonstrate or apply skills.

Working from the premise that becoming a teacher is a continual, active process rather than a product (see Darling-Hammond & Snyder, 2000), the authors tried to create ‘communities of practice’ (Lave & Wenger, 1991) with the student-teachers during the field placement. Using formative assessment practices, they sought to help the student-teachers negotiate a sense of ‘belonging’ within the community of practice and ‘becoming’ more expert through active participation (see Lave & Wenger, 1991). The authors’ ultimate hope was that their view of assessment as a formative learning experience would enhance the continuous learning and development of student-teachers (see Smith, 2010). As a result of this professional growth, student-teachers would become capable of taking decisions and also make complex judgments about their own work and that of others (see Boud & Falchikov, 2006).

The authors, however, also recognized that the assessment of the field placement has an additional summative function. This ‘gate-keeping function’ (see Smith, 2010) selects the competent teachers in order to protect the profession from incompetence. The certification of competent teachers is extremely important because, just as no one wants to be treated by an incompetent doctor, no one wants his or her children to be taught by teachers who have not reached the necessary satisfactory standards (see Bloxham, 2008).

The assessment of the field placement is particularly problematic when, as happens at the University of Malta the two apparently contradictory functions of assessment, that is the formative and summative dimensions, are carried out by the same person, the teacher educator. The embedded feedforward and judgmental roles create a stressful situation since the same person has to be both a supporter and judge at the same time (see Smith, 2006; Ciuffetelli-Parker & Volante, 2009). These tensions were experienced by the authors during field placements as they tried to reconcile their assessment philosophy with the summative assessment that they were required to carry out. The authors felt that while they cherished their formative role, viewing themselves as mentors who were focused mainly on enabling student-teachers to decide where they were in their learning, where they needed to go and how best to get there (see

Black & Wiliam, 2009), their University was describing them as ‘examiners’ in its regulations (see University assessment regulations, 2009) and was concerned primarily that they pass a summative judgment of student-teachers.

Assessment in Higher Education

Research (Boud, 2007; Ferguson, 2011) suggests that assessment practices in Higher Education (HE) remain dominated by a focus on standards, the measurement of outcomes, certification and concomitant regulations. The role of assessment in relation to learning, although generally acknowledged, appears not to be well understood across HE (see Yorke, 2003). The failure of assessment practices in HE to reform along the lines noted at primary and secondary levels may be rooted in the greater demands for accountability (DeLuca & Klinger, 2010) and the increasing bureaucratization of universities which have become corporatized (Evans, 2011; Mayo, 2009). The resulting institutional pressures that relate to valuing ‘efficiency’, ‘standards’, ‘league tables’ and the ‘marketplace’ hinder the very the introduction of formative assessment in HE (Rorrison, 2010).

For the authors, as also reported in a study by Asghar (2012), the demands for quality assurance and high administrative demands were doing very little to empower them as academics to concentrate their efforts on creating a supportive learning environment for their student-teachers. On the contrary, they were concerned that their socio-cultural theoretical underpinnings were being ‘silenced’ (see Evans, 2011) in practice in view of the increased administrative demands of the university. As described by Evans (2011), they were feeling that assessment at university was a disempowering administrative procedure, with its own rules and regulations, which was not allowing them to take academic responsibility for the assessment of the field placement.

The reflection of these concerns led the authors to crystallize the focus of their research, starting by identifying the issues and challenges experienced by teacher educators and university administrators in the assessment of the field placement. University administrators were involved in the study since, apart from the tensions between formative and summative assessment, one of the factors that was having an impact on the assessment of the field placement was the increased bureaucratization of assessment practices within the context of HE. The authors hoped that by looking at the multiple perspectives of key players in the assessment process, they would be able to construct a model for the assessment of the field placement that tries to find a balance between all the tensions identified.

Research Methodology

General Background of Research

Currently, the Faculty of Education at the University of Malta provides two routes into teaching: a four-year Bachelor of Education (Honours) program (which is the focus of the present research) and a one-year Post Graduate Certificate in Education. For both ITE programs, the field placement is considered to be an essential element, as it allows the student-teachers to acquire key skills and competencies in teaching and learning, allows them to link theory and practice and become reflective practitioners (see Sultana, 1995; Bezzina & Camilleri, 2001). As part of their degree, B.Ed. (Hons.) students are asked to spend a period of time in schools, which is referred to as ‘field placement’. Their role and duties during these placements in schools vary according to their level of studies. In the first two years of the program, they simply carry out a number of observations and tasks and teach a number of lessons. In the third and fourth year of the program, they are in schools for a block period of six weeks. During these six weeks they are completely responsible

for the classes that they have been assigned. Education students are referred to as 'student-teachers' during school placements.

Assessment of the field placement is carried out by two or three teacher educators (who are officially referred to as 'examiners') who visit the student-teachers on at least four separate occasions. The student-teachers are given oral and written feedback against a checklist of pre-set competencies. At the end of the field placement they are awarded a Pass or Fail. The teacher educators are expected to play a dual role during the practicum: They are expected to support the student-teachers by giving them "qualitative feedback which allows them to understand their strengths and areas which need improvement in order to grow and develop as professionals" (*Assessment guidelines*, 2006, p. 5), but at the same time they also need to act as examiners and award student-teachers a Pass or Fail. As examiners, the teacher educators need to abide by the *University assessment regulations* (2009) that govern all forms of assessments that contribute towards the award of any certification by the University. These regulations are based on a scientific model of achievement and reflect the harmonization process across European universities through accreditation systems that require an assessment to be measurable and transferable in order to ensure mobility and quality assurance across European universities (see Mayo, 2009).

The Research Participants

The participants of the study included five academics and five administrators from the University of Malta. The five academics, who worked within different area specializations at the Faculty of Education, had either carried out research in assessment or were in key administrative positions within the Faculty at the time of the study. The academics, therefore, for one reason or another were all well versed in assessment discourse. The five administrators, on the other hand, were chosen because of their assessment-related administrative responsibilities at that time either at Faculty or University levels. All ten participants gave their informed consent. Pseudonyms are used in this paper in order to preserve the anonymity of the participants.

Data Collection and Analysis

The data were collected through semi-structured interviews that allowed interaction with the participants of the study (see Fontana & Frey, 2005). The idea was to obtain data that are rich in examples from practice and experience. It was thus decided to use broad open questions in order to encourage the participants to speak freely about their views on the assessment of the field placement. An interview schedule was prepared and this was used with the participants to ensure consistency (Cohen, Manion & Morrison, 2007).

The one-to-one interviews, which gave the participants a better chance to express personal views and opinions, were all carried out by one of the authors in order to establish an interviewing pattern. Each interview lasted approximately an hour and the questions asked were open ended. This allowed the participants of the study to express their views and opinions about various issues related to the field placement, such as the mentoring and examining role, the tensions and conflicts that arise from the formative and summative aspects of assessment, and the role of the field placement in the development of prospective teachers. The author knew the participants as colleagues, and this was used to the advantage of the research since the pre-existing relationship of trust and respect ensured that the data collected was as real and authentic as possible (see Cole & Knowles, 2000).

From the outset the participants were aware of the views of the interviewer who approached the research trailing her value-laden knowledge (see Griffiths, 1998). However, this did not hinder

the participants from expressing their own personal opinions in the knowledge that the authors were reflective and reflexive enough to present a multi-voiced perspective which was “a joint construction not transmission of knowledge and was characterized by negotiating feedback and respect for each other” (Cole & Knowles, 2000, p. 197). The interviews were transcribed and sent to the participants to ensure that their views were being recorded correctly. The data were then analysed using a ‘thematic analysis’ (see Boyatzis, 1998) in order to develop a reflexive, multivoiced narrative (Denzin, 1994) of the participants’ views. It is not the intention of the study to produce results that can be generalized. Instead, the intention is to provide views which “may have a shared meaning for others struggling with the same issues in their own pedagogic practice” (Asghar, 2012, p. 209).

Results and Discussion

As the authors coded the data to look for patterns, themes and underlying tensions (see Boyatzis, 1998), four major themes emerged from the issues raised by the participants of the study. These include: the challenge of assessing students within a bureaucratic university system; the dual role of teacher educators as mentors and examiners; the misuse of formative feedback; and issues of fairness and equity in assessment practices.

The Challenge of Assessing Students Within a Bureaucratic University System

Within HE the assessment discourse has become mainly concerned with quality assurance, achievement, standards, procedures and measurement of outcomes (see Boud, 2007). According to Evans (2011), this administrative takeover of assessment procedures in universities results in the silencing of academic discourse in favour of prescriptive rules and regulations. In line with the arguments put forward by Boud (2007) and Evans (2011), Simon, one of the academics, felt like that his thinking about assessment had changed in response to the increased bureaucratisation of assessment practices within the University of Malta. He claimed that the introduction of the *University assessment regulations* (2009), which follow a scientific model and focus mainly on procedures on how to ensure fair practice in examinations and marking, curtailed his discretionary judgment as an academic and teacher educator. Recognising these regulations as the ‘law’, Simon disclosed that although he still endorses ‘assessment for learning’ principles (see Assessment Reform Group, 2002), he is not being given the space to put these principles into practice. This is how he put it:

“I believe that formative assessment should be part of assessment at University, but it’s not a question of what I believe any more... it’s a question of what is allowed. Formative assessment is not allowed at University. Feedback doesn’t even feature in the regulations at the University”.

Margaret, one of the administrators, concurred with Simon. She said:

“I think the system is not very conducive to lecturers giving feedback to student-teachers... from an administrative perspective, if any of the students ask me what they need to do if they do not like a mark, we always tell them that this can be done through a revision of the paper. We never tell them to go to the lecturer...”

Asghar (2012) reported similar disenchantment with educational principles among academics in a British university:

“...The tensions created by the demands of quality assurance, institutional policy

drives and economic constraints on time do little to encourage academics to feel empowered to concentrate their assessment efforts towards a more supportive learning environment.” (p. 206)

In the present study, however, Simon was the only academic who opined that the assessment regulations of the University are constraining his formative assessment practices. Peter, another academic, for example, argued that although he knows that these regulations only require him to give a summative judgment of student-teachers’ performance, in reality he still uses the assessment process to support student-teachers and give them formative feedback. Peter was adamant about this:

“...I know that there are the assessment regulations, but this does not tell me how I should deal with my students. Even though the regulations do not allow for formative feedback, I still tell student-teachers what I think of their performance and try to be as clear and realistic as possible...”

The Dual Role of Teacher Educators as Mentors and Examiners

The administrators in the study emerged as being aware that the assessment process at University, apart from the summative dimension with which they are directly involved in their work, carries an additional formative potential for their academic colleagues. This is how Diane, an administrator, described these two facets of assessment:

“From a bureaucratic point of view and of regulations, assessment is the means by which students gain their ECTS credits. So I think that this is the first purpose of assessment. Assessment is also the means by which you give students an indication of how they are performing in a particular unit and the course. I understand that assessment has two roles, the role to help the student improve and to tell the student what standards they have achieved.”

But while this duality poses no problem for administrators, it raises an important ‘professional dilemma’ for academics. For Simon, the solution was to practically forfeit the formative dimension of his assessment practices. The remaining four academics claimed to experience tension as a result of having to work with a regulatory structure that does not also reflect their ‘for learning’ assessment beliefs. They identified in fact their dual role as ‘gatekeepers’ and protectors of the profession and ‘mentors’ who provide support and guidance to student-teachers (see Rorrison, 2010) as one of the major challenges they face during the field placement. Marika, an academic, aptly expressed the difficulties encountered:

“It’s a double-sided coin. You’re always mentoring them in a sense... yet at the same time you’re assessing them. It’s a difficult balance and I think there’s no clear cut off point when you say at this point I’m mentoring... and at this point I’m examining... As much as I try to be a mentor, the students know that at the end of the day I’m there to pass or fail them. Obviously, the way I give them feedback is important, but at the end of the day however much feedback I give them, the element of examination remains and in the end they always ask but is it a Pass or a Fail.”

The prospect of having to provide guidance and support and at the same time give a summative judgment of performance arguably creates what Ciuffetelli-Parker and Volante (2009) describe as ‘irreconcilable tensions’. Notwithstanding this, these four academics claimed to be forging

ahead in their pursuit to try to reconcile the formative and summative aspects of the assessment process. Peter and Joanne, two of these four academics, reported that they are able to manage their dual role as mentor and judge without particular difficulties. Like Stobart (2008), Peter sees the possibility of integrating the formative and summative aspects of assessment as part of a loop:

“I see the summative aspect of assessment as part of the whole process of formative assessment. I don’t just give a grade and that’s it... All that I do in the assessment process, including when I give a summative grade, is giving students feedback on how they are progressing... I do not see the two things as separate...”

Joanne, on the other hand, is more interested in finding a balance between these two purposes of assessment:

“There is a bit of discomfort because as mentor I need to help and support students, but then I also need to see whether that help and support has been translated into better performance. It is a little bit awkward, but in my mind, I feel that the two are clear. I feel that I can do both.”

The other three academics in the study, including Simon, continued to express their reservations about the manageability of this dual role. A response to this duality depends in reality on whether teacher educators are interested in observable outcomes (that is, what they are actually seeing the student-teacher do) or the potential of the student-teacher who is in the middle of a learning experience (see Smith, 2006). Depending on their interest, teacher educators would then carry out their assessing role either by focusing on competence or learning (see Tang & Harrison, 2011). The real question remains, however, whether these two roles can be carried out concurrently by the same person. The authors are of the idea that should mentors also have a judgmental role, student-teachers might then be reluctant to admit mistakes and ask for help – an eventuality that would diminish their learning experience (see Yorke, 2003). To have a truly ‘humane and supportive mentoring’ system (see Rorrison, 2010), the professional interactions between mentor and mentee cannot be shackled by the possibility of failure.

The Misuse of Formative Feedback

Another important issue that emerged from the data was the concern, raised by both teacher educators and university administrators, that the feedback which is being given to student-teachers when teacher educators visit them during the field placement is not being used by student-teachers to improve their learning. As argued in the previous two sections, administrative concerns and the challenge of being both ‘mentor’ and ‘examiner’ at the same time somewhat constrain the formative aspect of assessing the field placement. Still, all the teacher educators, except for Simon, stated that in some way or another they offer ‘for learning’ feedback to student-teachers during the field placement. For instance, Peter confided:

“It is my responsibility to show student-teachers where their strengths are and how they can improve their weaknesses...”

What the teacher educators and administrators suggested, however, was that the student-teachers are not using formatively this feedback. This comment by Vincent, an administrator, expressed this general feeling:

“Student-teachers are not using the comments in a formative manner... they interpret the comments in whatever way they want. Lecturers are using comments to try and help the students to grow, but the students, especially the ones who are failing, use lawyers to interpret the comments so that they can get a decision of failure revoked. For example, the student-teachers very often tell me, ‘But why did my university lecturer give me positive comments and then fail me in the end?’ The formative aspect of assessment is being lost on student-teachers. All the student-teachers want is to pass their field placement and they feel that any comments of encouragement that have been given to them by lecturers (in a formative manner) give them the right to pass.”

When, as in such cases, feedback is not used to improve practice and promote learning, feedback loses its value (see Wiliam, 2000; Sadler, 2009). The participants in this study seemed to concur that student-teachers are squarely to blame for this loss, as they quite deliberately misuse feedback. But there are other plausible reasons for this. It could be a lack of communication between teacher educators and student-teachers, or else student-teachers might still lack the necessary understanding of or the ability to use the feedback that comes their way (see Price, Handley, Millar & O’Donovan, 2010). Within a results-oriented HE culture, student-teachers are possibly only interested in whether they have passed or failed their field experience. Consequently, they may wish to interpret the feedback given to them only in terms of whether it supports the final judgment which they are given. In this scenario, any positive comments that are given by teacher educators to encourage and help student-teachers to improve their practice may be simplistically construed by the recipients as tangible evidence that they are doing well.

For the authors, one of the main problems is that formative feedback is being given to student-teachers in a summative context. This results in mixed messages and confusion for the student-teachers. Diane, an administrator, crystallised this crucial point by saying:

“Student-teachers have told me that the oral and written feedback that they get does not match. They do not understand how their university lecturers tell them that they are improving, that they are doing well, and yet sometimes they still fail their field placement. They question the positive feedback they receive when in the end they still fail. I understand that there is the dilemma that you don’t want to discourage students when they have the potential for improvement. At the same time you don’t want to give the impression that someone is doing well when in reality this is not the case, when you are expecting a huge leap in the performance of students. Now how you get that message across is in my view the crux of the matter...”

The data seems to suggest that although feedback is an essential characteristic of any formative learning experience, during the field placement student-teachers are only using the feedback comments to try to guess whether they have actually passed or failed their practicum.

The checklist of competencies used by teacher educators to give their feedback and comments is creating what Cochran-Smith (2003) describes as an ‘outcomes loop’ in which all learning is considered to be observable and measurable. In this study, the teacher educators and administrators perceived student-teachers to be misusing the received feedback by trying to turn it into a measure of a summative performance. There thus appears to be a lack of a shared understanding between teacher educators and their students of what is being assessed (see Smith, 2006).

Issues of Fairness and Equity in Assessment Practices

Issues of fairness and equity were mentioned by nine out of the ten participants of the study. These academics and administrators agreed that the assessment of the field placement should be a fair and equitable experience. Their claims to the contrary were based on the fact that while all the other components of the B.Ed. (Hons.) program are credited by a grade and a corresponding percentage mark that contributes directly to the final classification of the degree, the field placement is assessed on a 'Pass/Fail' basis that carries no real weight in the final classification. Conscious of the fact that the classification provides a license into practice (see Knight, 2007), these participants find it problematic that the assessment of the practicum performance makes no difference to the final classification except for when the Faculty's Degree Classification Board takes it into consideration to assign a First Class Honours degree (see University of Malta, 2006). Here are some of their comments:

"If you are giving a 'Pass/Fail' there is no number which you can add at the end towards the classification... you get a zero whether you have passed or failed. If one is doing brilliant and one is doing badly, they are both going to get a zero towards their classification." – (Margaret, an administrator)

"Once our students are being prepared for a professional degree, it is not fair that the practicum is not being recognised in the transcript like all the other study units." – (Pauline, an academic)

The thrust of their argument was that the degree classification should be strongly related to the student-teachers' teaching skills (see Cope, Bruce, McNally & Wilson, 2003; Sharp, 2006) and that this is only possible if the field placement is graded. For them, the introduction of fine-tuned grading would provide "a concise method of conveying levels of academic achievement and expressing them in a common currency" (Sadler, 2009, p. 810). This departure from the current 'Pass/Fail' system is desired by these nine participants as it would redress what they perceive as an unfair situation that does not differentiate between student-teachers who produce exemplary work and others who just get by. This is what Joanne, an academic, said:

"We have students who barely make it and students who excel... at the moment we're not differentiating between these types as the assessment we're giving is too broad. It doesn't do justice to those who push the boat out further, nor does it reveal that some students just make the grade".

Warren, one of the administrators, went a step further by suggesting that the 'Pass/Fail' system even might favour some students when it comes to finding employment to the detriment of the more deserving ones:

"Unfortunately, in an interview, it might be that the person who just scraped through can sell himself better and it'll be he who'll get the job. In essence, the 'pass' does not show the quality of the work done".

The arguments made by both academics and administrators hinge on the understanding that assessment practices form a 'positional good' which provides entry into desired occupations, status, wealth and power (see Griffiths, 2009). For the authors, however, such arguments reaffirm the predominant view of assessment as a summative process with the purpose of selecting students and differentiating among individuals to select those who are considered to

be the best against measurable criteria (see Sambell, McDowell & Montgomery, 2013). Unlike the participants of the study, the authors do not believe that grading the field placement, however finetuned, would make the experience more equitable. Instead, they would argue like Boud (2007) that a mark or grade could destroy meaning, as such measures only acquire meaning if employed in highly comparable, if not identical, contexts. But with field placements this search for uniformity is problematic. The fact that practicum placements are in different schools places significantly different demands on student-teachers, provides them with different levels of support and affects their performance in complex and unpredictable ways (Cope, Brice, McNally & Wilson, 2003). One cannot therefore expect grading – which pertains to the scientific measurement model that treats knowledge as unidimensional, context-free and task specific – to capture the complexities and situatedness of teaching (see Martin & Cloke, 2000; Sambell, McDowell & Montgomery, 2013).

Implications for Practice

This study aimed to explore the issues and challenges that teacher educators and university administrators face in connection with the assessment of student-teachers during their field placement. Although there is general agreement in the literature that the field placement is a key aspect of ITE programs (see Beck & Kosnik, 2002), it is also clear that the assessment of the field placement is more problematic than the more traditional academic assessment (see Sharp, 2006). This study has shown that the main challenges linked to the assessment of the field placement arise from a dual assessment role. All the participants of the study agreed that in principle the assessment of the field placement should be a formative experience, an occasion for teacher learning to take place (see Zeichner, 2010). However, in practice, as reported by both the teacher educators and the administrators who participated in the study, the assessment of the field placement within the context of a degree program has largely become a summative tool which certifies student-teachers as competent professionals and is controlled by University rules and regulations. This reflects a reality characterised by complex decisions being taken within a bureaucratic model of assessment that is dominated by testing competence in a manner which is rule governed and highly prescribed (see Darling-Hammond, 2006). Put differently, administrative concerns – which are grounded within what Boud (2007) describes as a dominant discourse of assessment based on measurement and certification – are helping to sideline the formative dimension from the assessment of the practicum.

For the participants of the study, the way forward in the assessment of the field placement is to introduce fine-tuned grading which they believe would eliminate sending mixed messages to student-teachers and be fairer to student-teachers by acknowledging their efforts in a measurable way. The academics and administrators in the study made this proposal in spite of opining that student-teachers can only grow and learn from formative feedback. Giving issues of equity and fairness as their main rationale, these participants argued that fine-tuned grading will solve the problems of misinterpretation of feedback and create a language of communication that is better understood by the student-teachers. For the authors, however, this is an overly simplistic solution that does not take into account the complexity of teaching. Moreover, this increased bureaucratization of assessment positions student-teachers as passive subjects (see Boud, 2007), which is at odds with the view of assessment practices as a potential for learning (see Kvale, 2007).

For the authors, the challenge therefore is “to find ways of thinking about assessment that have a positive consequential influence on learning and then develop the assessment practices that could accompany such a conception” (Boud, 2007, p. 19). The field placement has the

potential to become an authentic learning experience if, following Wenger (1998), teacher educators and administrators look at the practicum not simply as an experience for developing individual competences, but rather as an experience located within a community of practice. The partnerships that are formed within these communities among teacher educators, administrators, student-teachers and school teachers create a better support system that will allow student-teachers to develop their teacher identity along their journey of becoming (see Boud & Falchikov, 2006). However, this calls for changes in the way in which the assessment of the field placement is carried out in the Faculty of Education, University of Malta. These changes have to be clearly considered and based on sound theoretical frameworks as “assessment affects people’s lives... the future directions and careers of students depend on it” (Boud & Falchikov, 2007, p. 3).

A Proposal for a Good Field Placement Experience

Based on what has been learned from this study and in the belief that it is possible to attain a balance between the formative and summative purposes of assessment during the field placement, the authors would like to propose that a good field placement experience requires the following three key elements.

Creating a Safe Learning Community

Creating a learning community where learning and assessment can be framed as a co-operative and shared social experience (Lave & Wenger, 1991) is the first pre-requisite of a good field placement experience. This can lead to the apprenticeship model where the expert shows the apprentice how to do a task, the apprentice observes before starting to practice the skills involved, and then gradually takes more responsibility of his or her own learning.

Within this model, the student-teachers learn within a community which includes co-operating school teachers who act as mentors, teacher educators who offer professional advice and peers who provide mutual support and encouragement. The success of these communities calls for better partnerships among academics, administrators and field professionals (Boud & Falchikov, 2006). The assignation of a school mentor who works closely with both teacher educators and the student-teacher within the ‘community of practice’ is important because in “a socio-constructivist view, community is not just a frill; it is fundamental to effective learning” (Beck & Kosnick, 2006, p. 74). It is within this community that the student-teachers can feel safe enough to be creative and to show vulnerability as they develop a positive and supportive relationship with their mentors (see Dillon, 2010). Given the reciprocal dynamics of such a community, student-teachers become active participants in the assessment process rather than passive recipients of information about their competences.

Making the Field Placement an Authentic, Formative Learning Experience

The field placement experience should be considered as a professional practicum or a ‘reflective practicum’. Drawing on the apprenticeship model (see Kvale, 2007), the student-teachers start their journey of becoming teachers in a learning community where they learn from their mentor teacher as well as from the university teacher educators who visit them as advisors and ‘critical friends’. While there is no formal assessment in terms of credit or grades, the student-teachers would be getting continuous feedback from their university lecturers and school ‘mentors’ that identifies the gaps in their learning and reinforces their teacher identity. In these learning communities, a shared meaning of assessment is developed and “the focus of assessment becomes mapping future learning growth and social support rather than measuring past performance” (Lave & Wenger, 1991, p. 55). In this way, the formative purpose of assessment is completely separated from its summative function, and certification is no longer based on observed

competences. The 'new' role of the teacher educator would be that of 'expert' or 'master' who guides the novice teacher into full participation in the socio-cultural practices of the teaching community (see Wenger, 1998). When the responsibility of the teacher educator is no longer linked to passing judgements, the focus of his or her interactions with student-teachers can shift to progress as they reflect and transform their sense of 'self' through learning conversations and experiences within the learning community (Rorrison, 2010).

The field placement experience can also be supported by weekly reflective seminars during which the student-teachers can interact with their university lecturers and reflect on critical incidents taking place in their classrooms (see Dillon, 2010). This provides student-teachers with the opportunity to step back, reflect and form a relationship of trust with their university lecturers outside the school context. By so doing, student-teachers become "partners in our assessment communities, rather than passive recipients of the judgments we mete out" (Sambell, McDowell & Montgomery, 2013, p. 133).

Certifying Teachers Summatively on the Basis of Multiple Sources of Information

As argued previously, if the field placement is to become a professional learning experience, it cannot be constrained by fears of a summative evaluation or judgment. Nevertheless, the field placement is part of a university degree that provides students with a three tiered final degree classification (first, second or third class) and student-teachers need to be certified as professional teachers. This renders it necessary to put in place some form of summative judgment of the field placement that contributes directly to the final degree classification and also provides qualitative evidence that the required teaching standards have been reached. The validity of these judgements thrives when multiple sources of information are taken into consideration, as "an isolated sample of performance of a single genre of data is insufficient to inform judgments about learning, teaching, program development or candidate competence" (Darling-Hammond & Snyder, 2000, p. 528).

The authors would therefore like to suggest that the summative assessment of the field placement is carried out on the basis of a number of factors and derived from multiple sources. These factors can include written evaluations and critical reflections by the student-teachers that are assessed by university lecturers (see Wiliam, 2000); attestations from school mentors and university lecturers acting as advisors and critical friends and a final evaluation by university lecturers acting as examiners who visit schools in the final weeks of the field placement. These can be presented in a teaching portfolio that builds an ongoing narrative of the student-teachers as they journey through the field placement. The student-teachers can then be interviewed in order to explain and provide a rationale for their practice. Following the interview, the 'examining board' can award the student-teacher a 'distinction', 'merit', 'pass' or 'fail' on the basis of all the collated evidence. These descriptors of practice can then be converted into a measurable mark or grade for the purpose of degree classification. This comprehensive procedure would ensure that the summative, multi-sourced description of the student-teacher's competences gives an in-depth view of his or her development from 'novice'/'apprentice' to 'more expert'.

Conclusion

The main suggestion being made in this paper is to re-conceptualise the purpose of the field placement. This would basically entail shifting the purpose of the practicum from the certification of student-teachers to providing them with an authentic, learning professional experience. Learning within an apprenticeship model would thus become the main focus of the field placement experience. This can be achieved by creating effective 'learning communities' around the field

placement that should move the practicum experience “beyond the realm of purely cognitive to acknowledge that learning is also a profoundly reflexive, social and emotional phenomenon” (Sambell, McDowell & Montgomery, 2013, p. 9). Through these communities, the focus of the assessment experience becomes the immediate and future learning; the final summative evaluation, based on multiple sources of evidence, can then be seen as a snapshot of the whole assessment process. But if these communities are to take shape and bear fruit, it is essential that all the key players in ITE institutions and collaborating schools recognise and act upon the great learning potential of assessment during field placement. What is being proposed certainly represents a shift from the ‘normal’ assessment of the practicum and consequently may give rise to fear and scepticism. Still, the rewards of introducing and nurturing these ‘learning communities’ promise to be great, as they may serve to transform the well-documented formative and summative assessment tensions that characterise the field placement into learning opportunities.

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Section I

IDENTITY, PROFESSIONALIZATION AND TOMORROW'S TEACHERS

USING CORPUS LINGUISTICS TO ANALYSE POST LESSON OBSERVATION FEEDBACK

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Doreen Spiteri

Abstract

The journey of the student teacher from the start of their Initial Teacher Education (ITE) pre-service programme to the end has been widely studied. Equally important is the journey of the teacher educator whose role in the learning experience of the student teacher is often a critical one as the teacher educator brings knowledge and experience to the learning relationship. This learning relationship is often mediated through language, one instance of which is the written feedback student teachers receive on their teaching practicum in the post lesson observation stage. This study explores the types of feedback given and the linguistic choices made by a teacher educator over a span of ten years in the context of pre-service teacher education based in an institution of higher education. A systematic, quantitative analysis was possible using a lexical analysis program supported by a qualitative analysis of the data.

Keywords: teacher education, observation, teaching practice, corpus, analysis, linguistic.

Introduction

Research in the field of feedback to student teachers

Research into the discourse of post observation conferences has tended to focus on oral feedback. One of the first reviews of the subject (Holland, 1988) spanning 30 years distilled the studies on supervisory conferences into three components: *the perceived purpose, the relationship between the teacher and the supervisor in the conference situation, and the way in which information and data about the teacher's performance are used during the conference*. No reference is made to written feedback.

Since then, several other studies continued to look at the post observation conference: the form and substance of supervisory discourse between university supervisors and student teachers (Zeichner, Liston, Mahlios & Gomez, 1988), the relevance of discourse analysis of supervisory conferences (Roberts, 1990), face-threatening acts and politeness theory (Roberts, 1991) the processes used by supervisors (Waite, 1992), an analysis of mentoring conversations with beginning teachers (Baron & Strong, 2004), politeness strategies in delivering suggestions and advice (Vasquez, 2004), interactions between language teachers and their supervisors (Vasquez

& Reppen, 2007), language, power and control in post-observation interactions (Hyland & Lo, 2006), the post-observation conference as a genre that student teachers need to negotiate (Copland, 2008), the impact of confirmatory and corrective feedback (Kurtoglu-Hooton, 2008), how topics and speaking rights are established and negotiated (Copland, 2011) among others.

Studies that looked at written feedback focussed on: logic and substance of discourse between university supervisors and student teachers (Zeichner & Liston, 1985), features, style, and ways of giving advice and signalling progress (Spear, Lock & McCulloch, 1997), the linguistic characteristics of written supervision feedback reports (Glenwright, 1999), what student teachers consider to be the most useful processing tool for reflection (Smith & Lev-Ari, 2005), the most effective forms of feedback according to student teachers (White, 2007), the content of the feedback (Akcan and Tatar, 2010), using critical discourse to capitalize on opportunities to develop adaptive teaching expertise (Soslau, 2012), among others.

Mainly from the studies above and from other studies that focus on feedback, including that given by university tutors, some categories of types of feedback have been proposed.

Feedback has been categorized as factual, prudential, justificatory and critical discourse (Zeichner & Liston 1985); as authoritative advice and cooperative advice (Spear, 1997); as expressing approval, expressing reservations or criticism, and giving advice or directives (Glenwright, 1999); as confirmatory or corrective (Kurtoglu-Hooton 2004 following Egan, 2002); as descriptive, questioning, evaluative and advisory (Bunton, Stimpson & Lopez-Real, 2002); and as reflection, direction, evaluative and relational (Farr, 2007) among other categorizations.

The differences tend to be ones of preferred terminology rather than distinctions, and there is a great deal of overlap among the terms. However, a study that stands out for its methodology is Farr's (2007) study that reaches conclusions about categories of feedback by using corpus linguistics to analyse the post-observation feedback. The study reported here takes Farr's work as the point of departure and similarly uses corpus linguistics to explore the types of feedback given and the linguistic choices made by a teacher educator over a span of ten years in the context of pre-service teacher education based in an institution of higher education. This systematic, quantitative analysis was possible through the use of a lexical analysis program supported by a qualitative analysis of the data.

Theoretical framework

Though not conducted strictly as a self-study, the paradigmatic framework adopted here shares some elements of self-study research. Taking LaBoskey's (2004) five characteristics of self-study methodology, this study can be described as self-initiated and self-focussed, and aimed at improving my own practice as well as linking my practice to current understandings in teacher education of how best to prepare student teachers. It also aimed to locate any living contradictions (Whitehead, 1993) between my actual practice, *to better align [my] teaching practices with [my] teaching intentions* (Loughran, 2007, p.12). The knowledge generated is, in the first instance, of use to my practice, and it should contribute to the improvement of the practice of others as it produces *public knowledge of practice* (Pinnegar, Hamilton & Lynn, 2009, p. 99). While self-study research tends to be predominantly but not exclusively qualitative in nature, this study uses quantitative methods, which still make demands on the validity and trustworthiness of the process.

The statistical linguistic analyses conducted make for a transparent and systematic research process (Bullough & Pinnegar, 2004, pp. 340-341) however, the qualitative reflection on the

analyses was an individual effort, missing the critical collaborative enquiry, which is a characteristic of self-study.

Contextual background of the study

The teaching practice

The context of this study is somewhat particular as this ITE university-based degree course is still in the process of establishing partnerships with schools and setting up mentoring support systems despite being in existence since 1981. In the absence of a school mentor, the level of support that student teachers can expect on their field placement varies widely because there are no specifically chosen or trained teachers as mentors. There is a cooperating teacher whose role is not described and the support they give could range from minimal to highly valued (Smith & Spiteri, 2013). The reasons for this are many and varied but it is beyond the scope of this study to explore here. The upshot is, however, that the university tutor or supervisor is the only point of reference for the student teacher. It is they that observe lessons and hold post-observation conferences and write reports.

The teaching practice lasts six weeks and four unannounced visits by two university tutors take place. A visit normally consists of one observed lesson (around 40 or 45 minutes) followed by a conference (around 30 minutes) between the student teacher and the university tutor only, on site at the school. This could take place immediately following the observed lesson or later in the day, at university, if the student teacher is teaching again, or if the university tutor has other visits to conduct.

Guiding the post-observation session is a one-page pro forma in the form of a checklist of competences and a list of criteria organized around three themes: Planning and Preparation, the Teaching and Learning process (the lesson), and Communication, Classroom Management and other Professional qualities. Under each heading is a list of indicators further expounding on the headings and a system of ticking off on a three-point descriptive scale of Marginal, Satisfactory, and Unsatisfactory. In addition, a lined page is available for a qualitative, discursive response on the observed lesson and any other related aspects identified by the tutor as necessitating comment.

The two strike a balance between the need for structure and standardization among all the university tutors, and open-ended comments that allow the tutors to respond freely to the particularities of the situation.

This document, in the shape of a booklet, is retained by the student teacher; on occasions when the tutors cannot complete the report on site, it is returned to the student teacher as expediently as possible. The booklet therefore contains reports written by more than one university tutor, however, as this study focuses on the researcher's own development, only the two reports written by the researcher out of the four were selected for analysis.

Each of the four visits, and consequently each report, is intended to support the student teacher but also assess performance. The tutors therefore tread an uneasy ground between formative and summative roles: suggestions and recommendations are made, however, the visit is also formally assessed as having constituted a Marginal, Satisfactory, or Unsatisfactory performance. There has been much heated debate within the faculty about this practice, however, at the time of writing the policy still stands.

After the practicum, a Board of Examiners including the two tutors, considers the four reports and a final decision regarding the student teacher's overall performance is reached.

Method

Selected for this study were 36 feedback reports given to 18 student teachers, 9 each from two teaching practice periods separated by a ten years. The selection of students was based on the fact that in the first teaching practice period, I was tutor for 9 student teachers and so selected them all; for the second, I chose the first 9 students on the list. The list is compiled according to the location of the school the student teachers taught in. The two cohorts of student teachers had all completed their teaching practice successfully.

The profile of the student teachers was largely similar: they all were young university students typically aged 18 – 22, from the same country, of the same nationality, and all were following an initial teacher education course, on a full-time basis, in English language teaching, specifically to teach the 11 – 16 age bracket of learners in mainstream education.

The data – the handwritten feedback reports - were typed out to permit linguistic analyses using a lexical analysis tool – Wordsmith (Smith 2004) – which consists of *an integrated suite of programs for looking at how words behave in texts* (Scott, 2014). Data can be analysed for a range of purposes: to find out the most frequently occurring words, the words that typically cluster together and form patterns, the key words in a text, and concordances. The lexical analysis tool also allows one to explore sentence patterns and identify the position of search words in sentences and paragraphs. The data inputted resulted in a small corpus of tutor written feedback of 12,378 words. Additionally, a manual qualitative analysis followed that analysed the units of feedback according to categories found in the literature. For the purpose of the analysis, a 'unit' was considered to be a sentence or more, that dwelt on one issue. The researcher purposefully avoided parsing the data into chunks that were either descriptive or evaluative or advisory as this would skew the thrust of the feedback being given. Consequently, a chunk of feedback that focussed on one issue and possibly contained diverse elements was considered as one unit of feedback.

The two sorts of analyses – corpus and qualitative - were intended to complement each other and drive each other: the frequency counts, for example, served to identify patterns which led to a closer look at the data. The manual categorization then drove linguistic analyses such as concordances which served to identify other patterns of language usage.

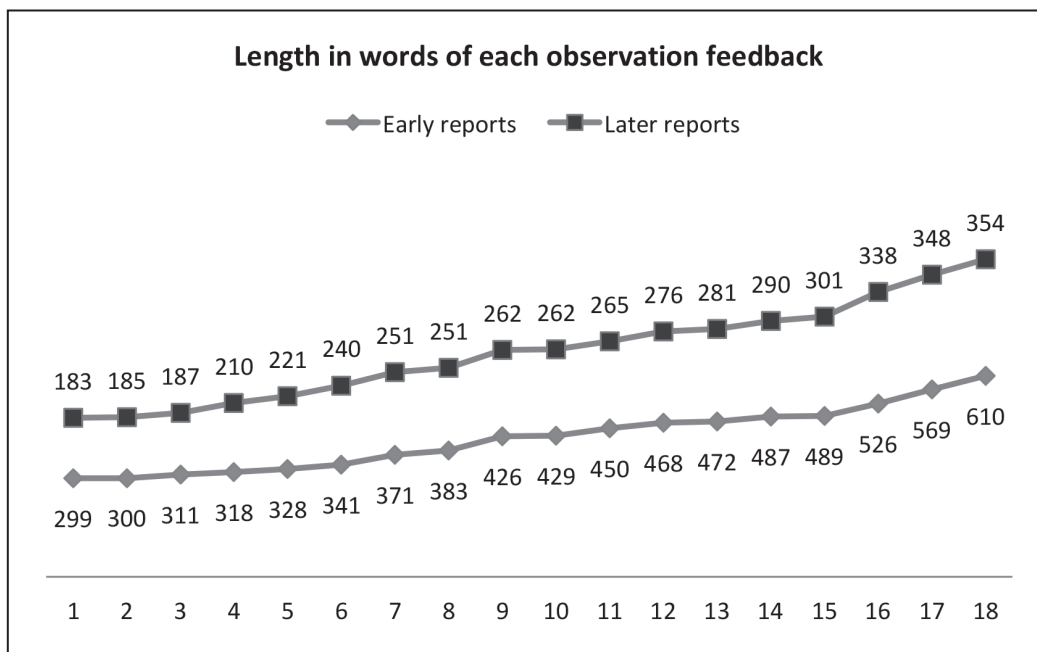
Findings and discussion

Length of reports

The following are some statistical data about the written feedback which will be referred to as Data Set A representing data collected at the first point in time. One of the first differences that stands out (fig. 1) is the difference in length of written reports between the two data sets. The later reports (Series 1), are consistently longer than the early reports (Series 2).

This increase may be attributed to two reasons: a conscious decision that responded to changing local realities and a greater sensitivity to the dynamics of the post lesson conference. Student teachers who failed their practicum have on occasion officially challenged the written assessment given by the university tutors claiming that the written reports did not contain sufficiently strong reasons to justify their failing grade. The oral feedback, by its very nature, cannot be factored into the equation and in cases where the strongest evaluation was given verbally and tutors held

Figure 1. Word count of each feedback report grouped by data sets - A and B.



Source: Own

back from being unequivocal in the written reports, their assessment was questioned and found insufficient to fail a student teacher. To counter this, the understanding among faculty staff was to beef up the written feedback to sufficiently support the summative assessment made.

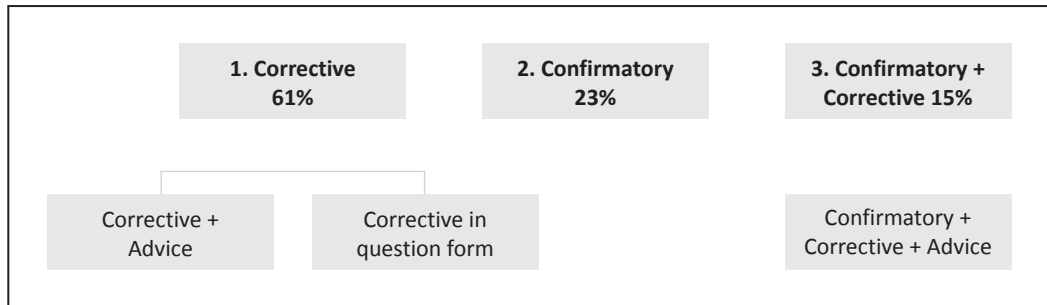
The other reason for the increased length was the slowly growing realization that the tension inevitably characterizing the post-observation conference, adversely affected some student teachers' disposition to absorb what was being discussed (Brandt, 2008).

Glenwright (1999, p.60) talks about *the fraught and intensely human nature of the whole supervisory exercise which offers a scenario where teacher self-esteem may be carefully enhanced and nurtured or unwittingly destroyed*. I became aware over the first years that the sensitive nature and power issues revolving around the post-observation feedback could impede the student teachers from taking in the oral message fully. This anxiety is related to the fact that each observed lesson is evaluated as either satisfactory, not satisfactory, or marginally satisfactory. The summative nature of this and the effect on the student teachers is quite overwhelming, such that it has happened that at the end of a detailed feedback conference, the student asks the tutor whether the visit was a pass or a fail – an experience reported by Stevens and Lowing (2008) in their research. Consequently, the written reports came to constitute a valuable resource and record of the feedback given to the student teacher that could be pored over at a later moment, and possibly in a calmer frame of mind.

Categories of feedback that emerge from both data sets

A manual analysis of the 36 written feedback reports (12,378 words) resulted in the following two broad functional categories – Confirmatory and Corrective (Egan, 2002) - which are further subdivided into other related categories:

Table 1: All feedback categorized into 3 main types



Source: Own

Corrective feedback is feedback which requires the receiver to change their practice and align it to practices required by the programme or institution. In essence, it is a form of criticism that can range from a reproach (*Your lesson evaluations are not updated, neither are the learner profiles*) to a recommendation (*I think you needed to do something about students forgetting their book*). Confirmatory feedback seeks to approve what the student teacher is doing (*Your hand-outs are attractive and motivating*); it serves the purpose not only of showing appreciation for good practice, but also to confirm what constitutes good practice. The table shows that aside from units of feedback that were either corrective or confirmatory in nature, another category resulted from the analysis – feedback that contained a mixture of a confirmatory and a corrective (*The use of the picture as an introduction worked well, but you did not link it to the poet of the sonnet*). When the percentage value in this last column (15%) is shared between the two main categories of confirmatory and corrective, one could say that all the written feedback given is made up of approximately 30% that is positive and expresses approval of the student teachers' practice, while corrective feedback that expresses reservations or indeed criticism, makes up the remaining 70%. The percentage of confirmatory feedback compares very well to that found by Glenwright in his analysis of three supervisors' written reports (1999, p.67).

Categories of feedback compared for the early and recent data sets.

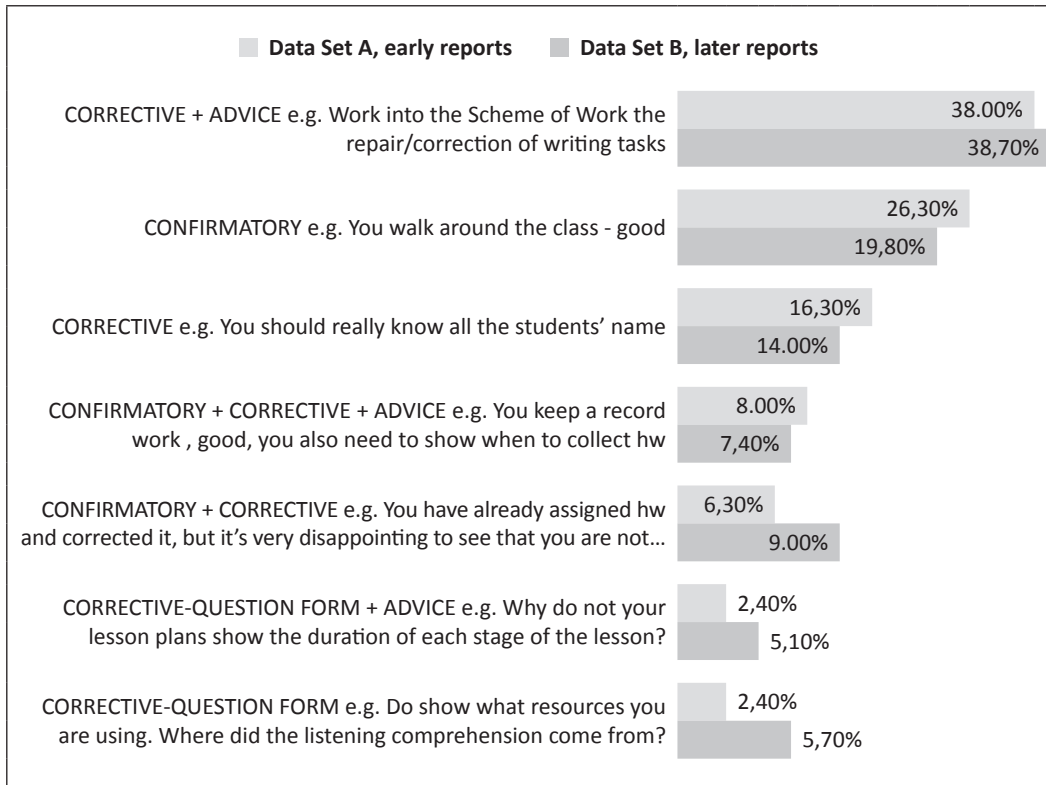
The graph on page 94 shows in greater detail the type of feedback given and differences between the two points in time when this feedback was written.

Over the years there appears less confirmatory feedback (19.8% in Data Set B, 26.3% in Data Set A) and more confirmatory feedback that is qualified with a corrective comment such as: *The use of visuals and choice of visuals was good but the approach again did lead to chatting among students and not all students were focussed and on task* (9% in Data set B, 6.3% in Data set A).

A variation on the last category above of a confirmatory comment qualified by a corrective, sees the addition of advice typically following the corrective. For example: *Your introduction to countable/uncountable nouns was good because you used what they know – a pity you used 'pasta' as an example, 'salt' would have been a better example*.

A slight decrease is recorded in the amount of corrective statements made in the teaching practice reports. At the early stages as a teacher educator, this made up 16.3% of all comments, compared to 14% ten years later. Typical corrective statements are the following: *Time was obviously an issue as the lesson aims could not be achieved* and *Your lesson objectives often sound like tasks students will be doing, not learning objectives*.

Figure 2. Categories of feedback compared for both data sets



Source: Own

Much of the feedback is made up of corrective comments followed by advice such as:

*Organize your whiteboard work better, use it to jot down what the students suggest, then clean up in preparation for when you next need it. Over the span of 10 years, the amount of this type of corrective feedback and advice given has remained largely similar at around 38%. What has more than doubled however is the use of question forms that function more as correctives than genuine questions but which also have the purpose of encouraging reflection: *Do you have to hand out the sheets yourself? Why not use the time to manage some uncooperative students?**

Bunton, Stimpson and Lopez-Real (2002) identified this category as *Questioning/Reflective* in their study of 27 tutors' written post observation feedback, typified by genuine questions or inviting the student teacher to speculate on choices made, for example: *Why did you then use... Just to keep it general initially?* (p.240). Spear, Look and M Culloch (1997) categorized these simply as suggestions (p.276). A variation on this way of giving instruction through questions is the addition of advice, for example: *Why collect their school work? - it was far more important to class correct it to check understanding of the reading text.* This approach of encouraging reflection while giving direction and advice made up almost 11% of the written feedback of the second data set whereas early on in my the percentage stood at just under 5%. However, when I reflected on this data some doubts arose about the assumed benefits of question forms that purportedly encourage reflection.

They seemed more akin to disguised criticism than genuine questions. Indeed, they could be read in an incredulous questioning tone which renders them quite harsh. It would be useful to follow up this hypothesis by running such statements past student teachers for their opinion.

Also of interest is the addition of a coda at the end of the written report. In 15 out of 18 reports that were handed to student teachers in the second data set, there was a closing sentence that wrapped up the report and made a general comment often of an encouraging nature and clearly intended to offset the evaluative load of the written report such as: *Although today's performance did not meet the required standards, I feel the issues can be resolved with reflection and reference to the literature.* In the early Data set, this appeared only in 6 out of 18 reports.

One can conclude therefore that over the years there has been no change in the type of feedback given, but the difference lies in the frequency: fewer confirmatory statements, an increased occurrence of confirmatory statements qualified by a corrective one, and an increased use of questions rather than statements. This suggests that as a teacher educator writing feedback on observed lessons, I temper corrective statements by preceding them with a positive comment and also by using a question form.

One might therefore infer that although the amount of correctives has remained largely the same, this has now been balanced with the addition of a confirmatory comment in the same sentence or by the use of a question form that replaces that corrective statement.

Differences in choice of words across a ten-year span

Having established that there were differences over time in the amount of praise given to student teachers, of related interest was exploring whether the lexis had changed over the span of 10 years. Again using the lexical analysis software, words from the two sets of data that stood out because of a significant (0.001) difference in the frequency of use were computed. The figures refer to the frequencies.

Table 2: Words from the two data sets

	Data set A	Data set B
activity	5	38
check	1	19
learning	5	27
listening	6	33
objectives	20	2
record	25	5
scheme	23	6
very	19	6
video	0	13
work	55	30

Source: Own

The statistical result above led to the computation of concordances, again using Wordsmith, to better understand how the words behaved in the texts, although a completely satisfying explanation was not always available. For instance, the use of the word *activity* has mushroomed over the years; it can only be surmised that in the feedback more specific advice is being given to specific classroom events. This conclusion can be reached because the early data set does not show a synonym for *activity* such as *task* or *exercise*. An area of concern regards the attention given by student teachers to developing their learners' listening skills. Computing a concordance for *listening* showed that it appeared in a cluster invariably with *skills* and this echoes perfectly my concern that student teachers focus excessively on grammar to the exclusion of listening skills which tend to be side-lined during lessons.

The increased use of *learning* could indicate a shift in the discourse towards the effect of the teaching on the school learners, and this ties in with the next word in the table – *objectives* – which virtually falls out of use in the recent data set. Trawling through the frequency lists shows a move away from *objectives* to *learning outcomes* signalling a growing concern with the effectiveness of student teachers' lessons.

Check appears only once in the first data set and the concordance for the uses of it in the second data set shows that *check* is largely used as in *cross check* indicating that the use of pedagogical register associated with questioning techniques in the feedback reports.

It is interesting to note that in the first data set there was no mention of the use of video in the feedback reports while in the later data it occurs 13 times, clearly reflecting the technological resources now available in classrooms. The next two items on the comparison of data list are related: *record* and *scheme* refer to record of assessment, record of work, and scheme of work – all documentation that student teachers are expected to have. Early on in my work as a teaching practice supervisor I had not anticipated the difficulties the student teachers could have in the practice of mapping out lessons in a scheme of work, recording how much ground was actually covered in lessons, and taking note of learners' progress. The input on this during lectures subsequently grew to address this need such that criticism on these aspects has decreased considerably. How something is said is as important as what is said and meaning is signalled by particular choices of words (Stubbs, 1996). Corpus analysis allows the identification of patterns and use of language which will further describe the linguistic choices I made as shown below.

Confirmatory feedback – how was this expressed

It is widely accepted that feedback – whether spoken or written – should have elements that are positive and negative. Indeed, student teachers have been reported as expecting evaluation and to be told clearly what they were strong in and what needed improving (Bunton et al, 2002), (Copland, 2008). The corpus showed that the word 'good' – typically associated with praise – occurred 43 times in Data set A and 21 times in B. Indeed, analyses show that 'good' appears 2 times per thousand words, compared to 9 times per thousand words in the early stage of my work as teacher educator. Related to the above are the findings from a search for 3-words clusters among the confirmatory feedback. There are several variants of *you do well*, *you did well*, *you do well to* in the recent data set. This particular cluster does not appear once in the first set of data suggesting that the use of *good* was substituted with variants of the phrase *you do well* as this occurred almost twice per feedback report as opposed to once every two reports in Data set A.

Analysing the confirmatory feedback also showed that 'you' and 'your' were the top two most frequently used words in Data Set A whereas in the later data these two words were among the

top 5. It appears that initially the direct pronoun and possessive pronoun were used marginally more frequently than in the later data set. Typically, praise or confirmation of good practice appears as: *Your student profiles show that you know your learners and you care about the.*

Your lesson plans are quite detailed;

Corrective feedback –how was this expressed. Tone of correction feedback

Corrective feedback in all its forms – whether modified with advice or in question form or purely corrective with implied advice – amounts to 61% of the units of feedback, or 68% if one adds the corrective comments that are part of a confirmatory-plus-corrective comment.

Undoubtedly, this is the most sensitive part of the written feedback for student teachers and it is intended to help them adopt different practices or adapt current practices so they teach in ways that match the expected competencies in the pro formas and assessment criteria. It must be remembered that this study looks at written feedback in isolation from the spoken feedback which are often complementary in function. The written feedback contains little phatic discourse, is largely evaluative in nature and scores low on encouraging reflective thinking partly because of the monologic mode (Farr, 2007). Analyses of the corrective feedback shows that the style and content match that reported in the literature. Farr (2007) found that written feedback was strongly directional in function and direct in style. For style, compare the following example:

Tape quality was poor. This had a negative effect at this level, especially. Check before use. (Farr, 2007)

With

Next, the students worked on a hand-out with the uninviting title of 'The first conditional' (own data).

Function of corrective feedback

In terms of function, part of the purpose of feedback is to support and guide student teachers by giving advice and alternative ways of teaching more effectively. Of 215 units of corrective feedback in 2014, 70% came with advice and in many instances of the rest of the corrective feedback, the advice was implied as in the following: *By this stage [of the lesson], we seem to have lost the holiday theme. The sentence on the IWB weren't all related to holidays.*

This marks an increase from the pattern in the early point in time when 64% of the corrective feedback given was accompanied with specific advice for improvement, while the rest was mainly pointing out reservations or criticism, although again this distinction was at times blurred: feedback that has been categorized as corrective had elements of implied advice. For example: *Your approach was not a discovery approach, you virtually told the students the [grammatical] rules.*

Grammar of corrective feedback – imperative forms

The focus of this section is the verbs and tenses used in corrective and evaluative feedback. A manual coding of the both sets of feedback reports resulted in the identification of 417 units of feedback that contained an element of evaluation and correction – either by itself or accompanied by advice and direction. In these 417 units, the verb *do* in the imperative form stands out, both in the affirmative as in *Do share your Learning Outcomes with the students*, and in the negative form: *Do not stand close to the student speaking because she will not raise her voice for all to*

hear. However, the imperative form also appears in several other verbs as can be seen in the first column of the table below.

Table 3: Imperative forms

<p>Verbs used in the imperative form (1) add, adopt, alter, ask, avoid, be, be sure to, beam up, beef up, break up, change, check, clarify, consolidate, date, distinguish, do, do not, elaborate, explain, exploit, form, go, guide, include, indicate, involve, keep present, learn, let, lower, move, move forwards, must, really must, offer, organize, pair off, plan, prepare, put, revise, say, see, show, spend, teach, think, treat, try, use, vary, watch, work on, write down.</p>	<p>Verbs used in the imperative form (2) consider, could, need to reconsider, reflect on, rethink, should.</p>
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Source: Own

Modal items such as *could* and *could have*, *should* and *need(ed)* ((2) above) were among the items that appeared frequently in this small dataset, and they seem a little less severe than the other verbs in the imperative form. At times however, the thrust of these verbs is further bolstered by the intensifier *really* as in:

You really needed to conclude and wrap up the lesson and consolidate the teaching point.

The whole class approach really did not work.

You really must approach this very differently and Penny Ur's book is helpful here.

Inasmuch as written reports encourage reflection – and studies have shown this to be little – some verbs encouraging some form of reflection can be found in the data (2). Some examples of units of feedback encouraging reflection:

***Consider** first using the visuals silently while pairs of students prepare their answers and then have a quick assessment check, whole class.*

***Reflect on** your management strategies; no need to escalate to a reprimand - go through stages first as I explained to you.*

*Please **reconsider** how to deal with students' difficulties. Supplying the answers yourself is **NOT** the way to go about it.*

Grammar of corrective feedback – advisory forms

The following lists all the examples of giving advice using a far less direct approach than addressing the student teacher directly, and opting instead for the neutral, passive form.

It is advisable to

It's best not to

It's necessary to

It is not enough to

It's best to

It is useful to (4 times)

For example:

*When taking answers from students, **it's best to stand next to the student who is furthest AWAY so that the speaker raises her voice for you (and all the class) to hear.***

Contrast this with an identical piece of advice on the same issue, this time using the imperative negative form; it comes across as harsher and more forceful.

*Do take up the advice I gave during my first visit: **do not stand** close to the student speaking because she will not raise her voice for all to hear.*

Changes in personal stance to giving corrective feedback

Since one of the aims of this paper is to trace any changes in the linguistic choices made when writing feedback, a basic frequency count among the verbs in the units categorized as corrective, gave the following result:

Table 4: Frequency and changes in use

	Data set A all 18 reports	Data set B all 18 reports	Change
could/could have	5	23	+18
would/would have	5	19	+14
I think	4	15	+11
really	3	14	+11
consider	0	9	+9
need to /needed to	17	24	+7
must	4	9	+5
reflect on	0	4	+4
do	10	12	+2
I would	6	0	-6
should	23	18	-5
please	6	4	-2
this is not acceptable	1	1	/
I strongly advise you	1	1	/

Source: Own

Starting from the top of the table, one notes the increased use of modal verbs *could/could have* and *would/would have* that are typically used to talk about situations that are different from what actually happened. A closer examination of the data reveals that later in my development as teacher trainer, I am offering solutions and different scenarios to the student teachers as alternative ways of teaching to the ones observed. The fourfold increase in the use of *could* particularly attests to proposals of other ways of being and doing that student teachers could consider.

I think in Data Set B stands out, indicating an increased preference for stating a personal viewpoint rather than an authoritative statement. It could also be signalling that the proposing of a suggestion given that some aspects of the dynamics of a class are often hidden to the outsider. This seems to be mirrored in the non-occurrence of the phrase *I would* in the same data set which suggests a move away from portraying oneself as an expert who has all the answers.

The increased use of *must* in the same data set, in tandem with the decreased use of *should* suggest a move to a stronger expression of obligation. It is not clear whether the much more frequent use of the intensifier *really* is related to this as in: *With some time left you did the first activity from the Matrix unit but you really should have followed the course book which correctly accompanied the music with a task.* Also more frequent is the use of *need to/needed to* which is further evidence of the occurrence of advice in recent feedback reports. A change in approach is evident in the use of verbs that encourage some form of reflection. In the first Data Set, the verbs *consider* and *reflect* do not appear in any report, whereas in the later Data Set they appear a combined 13 times. It may also be interesting to note that in both sets of data, a very strong corrective - *this is not acceptable* and *I strongly advise you not to* - was used only once in each set.

Conclusion

The purpose of this study was to explore, categorize and reflect on changes in lexical choices over the span of 10 years in the practice of writing post observation feedback to student teachers on their practicum. This reflection was rendered systematic through the creation of a mini corpus which allowed the exploration of the textual data statistically. Consequently two areas stand out: firstly, the great usefulness of a corpus that enables analyses otherwise impossible, and secondly the usefulness of reflecting on one's actions and scrutinizing for living contradictions. The study has shown that the quality of supervisory feedback has improved along the journey as a teacher educator. If encouraging reflection among student teachers is desirable, then the later feedback reports show that this goal is increasingly being met more effectively through the conscious choice of language that meets that goal. Moreover, the types of feedback given in the second data set, match the preferences expressed by student teachers for suggestions, advice, areas for improvement, praise, and encouragement (Bunton, Stimpson & Lopez-Real, 2002).

However, the study would have benefitted from collaboration with colleagues whose interpretation of the categorizations of feedback would have added reliability. Also, the views of the student teachers would have added a useful dimension. Of relevance to other research is the labour-intensive aspect of data input. Other teacher educators embarking on similar journeys would benefit from opting from the outset for electronic means of recording written feedback as this would render the process significantly easier and allow for more frequent reflections on one's practice. Moreover, this would in time generate a valuable database from teacher educators in various sites which the professional community can study to further deepen the developmental processes experienced by teacher educators.

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Section I

IDENTITY, PROFESSIONALIZATION AND TOMORROW'S TEACHERS

Social background and literacy skills of entering teacher education candidates.

Victor Martinelli

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Abstract

The educational attainment of the Maltese population is lower than in other European countries and the number of post-secondary graduates is lower than in most other European Union countries. The development of human capital represents the key factor of national social and economic development. In such a situation, schoolteachers are crucial in supporting children to achieve their potential and in this way contribute to national development. To achieve this mission, teachers need wide professional knowledge and, in Malta as a bilingual country, they need strong communication skills in Maltese as well as in English. This study examined the impact of student social background on the literacy competences of entering teacher education candidates. This study found a wide variation in these participants' English language comprehension skills and some association with the type of school attended that could be related to social background.

Keywords: Bilingualism, Social Class, Student Teachers, Teacher Education, Malta

Background

One of the roles of school teachers is to engage children in meaningful literacy tasks to prepare students for a global, technological, and information-based marketplace (Lumpkin, 2008). Research suggests that schoolteachers act as models of behaviour and ability for their students as well as models of inquiry and reflection (MacBeath, Swaffield & Frost, 2009; McGlynn-Stewart, 2014). Teachers balance their instruction with skills that they teach students in the context of meaningful, holistic experiences (Bohn, Roehrig, & Pressley, 2004). In the light of these statements, quality instruction in the primary school also includes effective strategies for dealing with reading failure (Taylor, Pearson, Clark, & Walpole, 2000). In the Maltese context, children learn to read and write two languages concurrently and mastery of English and Maltese is important for social inclusion (Ministry for Education and Employment, 2014a). Unfortunately, personal factors such as race, class, gender, personal characteristics and academic ability affect teachers' professional lives and their efficacy as effective teachers (Rinke, 2008).

Against this background of teachers preparing children to develop good literacy skills (Taylor, Pearson, Clark, & Walpole 2000), in the OECD Programme for International Student Assessment (PISA) 2009+, Malta fared poorly. The percentage of low achievers in reading among 15-year-olds was 36.3%, this being almost twice the EU average of 19.6% in 2009. At the time, only 64% of Maltese students were estimated to have a proficiency in reading literacy that was at or above the baseline needed to participate effectively and productively in life, compared to an average of 81% in the OECD countries. Malta was notable among PISA 2009+ participants in that it had a relatively large proportion of advanced readers but also a relatively large proportion of poor and very poor readers in the population making for an unacceptably wide dichotomy. The Progress in International Reading Literacy Study (PIRLS) 2011 and 2016 surveys reaffirmed that the performance of Maltese 9-year olds was very weak, ranking the country in the 35th position of 45 participating countries in 2011 in English and the 40th position of 50 participating countries in 2016 in Maltese (Ministry for Education and Employment, 2013, 2017).

In 2014, Malta's average tertiary school-age population enrolment rate for the previous decade was under 40% (UNDP, 2014). In 2014, the tertiary education attainment rate of people aged 30-34 was 26.6%. This was among the lowest in the EU and well below the 2020 national target of 33%, but it had increased by 3.2% between 2011 and 2014 (European Commission, 2015). The National Employment Policy document reports that Malta has one of the highest rates of the general population with a low level of education (equivalent to International Standard Classification of Education- ISCED levels 0-2) and the second highest share of workers in the European Union (44.1%) who have an educational attainment of ISCED 2 (Ministry for Education and Employment, 2014b). Among those with an ISCED level 3-4, Malta has the third lowest share of workers among the EU Member States. It ranks seventh from the last of EU member states for tertiary-educated workers (Ministry for Education and Employment, 2014b). Fifty-five percent of employers in Malta have reported difficulty in recruiting candidates for high-skill positions. This ranks Malta in the third position out of 27 EU Member States, implying that the pool of skilled human resources is limited (Ministry for Education and Employment, 2014b). Malta is one of few EU countries where the "share of people with low levels of qualifications is lower among non-EU born people than native born" (EIGE, 2017, p. 16). This situation underlines, among other factors, the importance of having competent teachers who can act as cornerstones and models for children in their educational development.

Characteristics of entering teacher candidates

Brookhart and Freeman (1992) report that entering teacher candidates typically come from homes where socioeconomic status is not as high as that of the other university students. Coultas and Lewin (2002) also suggest that in developing countries, student teachers tend to come from families with lower levels of education compared to others. Richardson and Watt (2006) reported similar findings in an Australian context where the background characteristics of beginning teacher education candidates included being female, young, and coming from less affluent family backgrounds.

Although teaching ranks high in its perceived value to society, it does not rank as highly for status and salary (Johnston, McKeown & McEwen, 1999). In many countries, this may not draw the highest achievers to the profession (Kyriacou & Coulthard, 2000). Furthermore, teacher candidates may be perceived as only average in comparison to other students and increasing feminisation of the teaching profession has contributed to a drop in the professional status of teachers (Everton, et al., 2007).

Literacy, achievement and cultural mobility

According to Haines and Dijk (2016), Dutch students of English are usually expected to produce work in the academic genre at level C1 of the Common European Framework of Reference for Languages (2001) for writing and speaking by the end of their bachelor's programme. This means that they would need to have a level of bilingualism that enables them to engage in "fluent, spontaneous communication" (Haines & Dijk, 2016, p. 36) in the second language. This does not assume that they are fully in possession of Byram's (1997) different levels of *savoirs* of culture-specific and culture-general knowledge affecting language and communication.

On the other hand, children need to develop good literacy skills since their reading skills are associated with later educational achievement and good reading skills are associated with higher levels of academic achievement and qualifications in adulthood (Ritchie & Bates, 2013; Fergusson, Horwood & Ridder, 2005). Teachers' language and intercultural competence influence students' communicative competence in the language in question (Sercu, 2006). Furthermore, students' reading skills also correlate with their socioeconomic status (Kutner et al., 2007). Research suggests that reading ability is positively associated with self-esteem (Kiuru et al., 2012), which predicts improved economic prospects (Trzesniewski et al., 2006). Childhood reading skills have substantial effects beyond the classroom with direct associations between these variables and attained socioeconomic status later in life. This is so even when controlling for intelligence, social class of origin, academic motivation, and duration of schooling, which themselves are also affected by reading skills (Trzesniewski et al., 2006). Kieffer (2012) notes that there is general agreement that socioeconomic status, usually indicated by parental income, education, and occupation, has a powerful relationship with early reading. Furthermore, high-socioeconomic status backgrounds tend to benefit children through material and social resources that provide them with the opportunity for success in learning to read prior to school entry (Bradley & Corwyn, 2002). Sénéchal, Lefevre, Thomas, and Daly (1998) found that home language and literacy experiences play a central role in students' learning through the development of students' oral language skills. Good language comprehension assumes greater importance later in the learner's life and may even be a contributor to improved socioeconomic status (Catts, Hogan & Adlof, 2005). The link between teachers' language competence and their ability to support pupil language learning emerges very clearly.

In the Maltese context, Vallejo and Dooly (2008) found significant associations between weak literacy skills and poor upper secondary attainment and early school leaving. They also found strong associations between illiteracy and poverty. Sapolsky (2005) documents the links between poverty, low socioeconomic status, poor social capital and poor health and how improving these leads to upward social mobility and societal change.

Malta's bilingual status continues to be an important cultural heritage of its recent colonial past and proficiency in English is an asset in this bilingual context (Ministry for Education and Employment, 2014a). In addition, English is the language of most of the textbooks across curricular subjects in both primary and secondary school classes in all three school sectors (State, Church, and Independent). English became the language of instruction in most Church schools before 1978 (Portelli, 2006). In the State school sector, Maltese is the language of instruction except during the English lesson. In 1987, State support for Church schools conditional upon the abolition of selection criteria resulted in these schools admitting children from all social classes thereby increasing the percentage of Maltese language speakers in them (Busuttil, 2001). All Independent schools in Malta use English as their preferred main language of instruction and communication (Bonnici, 2010). It is desirable for effective teaching to model a foreign language

at the level of competence equated with the C1 level of the Common European Framework of Reference for Languages (2001) and to expose children to the culture of the language through nursery rhymes, songs, popular history, folklore and tradition and current affairs (Sercu, 2006). In the Maltese context, competence in English is associated with access to good standards of education (Camilleri Grima, 2013) and good command of English should lead to facilitated learning if for no other reason than because text books are in their majority written in English (Borg, 2013). Additionally, learning to read successfully occurs within a familial cultural setting and is not a pure instructional process divested of its cultural roots in a decontextualized skill-and-drill environment (Gee, 2004). Since language is an important form of social capital that necessarily improves social connectedness (Dashwood & Son, 2011), teachers are ideally positioned to enhance learner's connectedness in relation to DiMaggio's (1982) cultural mobility model and address it as a social justice issue (Dashwood & Son, 2011). Thus, the link between high-quality teaching and learning and children's later success in life can never be emphasised too strongly.

Method

Objectives

The main objective of this study was to explore whether participants' social background and literacy related habits were associated with reading comprehension in the English language. A second objective was to obtain an indication of this cohort's level of English reading comprehension.

Participants

The sample consisted of 79 students attending one of the accredited B.Ed. teacher education courses consisting of eight males and 71 females studying to become primary school educators; their age ranged from 18.1 to 22.1 years. The sample was divided into two groups based on students' performance on the Suffolk Reading Scale (Hagley, 2002) through the use of a median split. Participation in this study was approved by the institutional ethics review board and participation was voluntary and anonymous.

Assessment instruments

The measure of reading comprehension chosen was the Suffolk Reading Test 2 (SRS2L3). A previous local norming of the first two levels of the test (not the level used) proved it to be a useful tool for distinguishing between the various levels of competence of English reading comprehension in the Maltese school going population (Firman, Martinelli, Camilleri & Ventura, 2010). The SRS2L3 is a group-administered test that is a time-efficient and reliable instrument suitable for the examination of reading comprehension of a large number of students in a limited time. All participants completed a questionnaire comparable to the PIRLS 2011 pupil questionnaire adapted to older respondents. The validity of this measure had been established in previous studies (Gilleece, 2015; Araújo & Costa, 2015) and was deemed an appropriate tool for exploring the participants' previous and current exposure to literacy. Participants were asked about their use of television, playing video games, ownership and borrowing of books, perceived adequacy of literacy, facilities for studying, the type of school they attended, other demographic information such as how frequently English was spoken at home and their parents' levels of education. Participants were required to provide a self-reported ranking of their overall academic ability. This addressed, in part, the notion of a broad indication of a 'composite of cognitive processes' that is a requirement for most studies in this area (Georgiou & Das, 2014, p. S112).

Participants' rating of responses to the questionnaire is described in terms of median values due to the limited numbers of respondents in this exploratory study. The descriptive and inferential

statistical tests used included percentages and the Chi-square test, with a probability value set at the .05 level of significance. The Mann-Whitney U test was used to validate the two groups created through the median split.

Sixty-five percent of participants reported that they watched television for 1 to 3 hours a day, 44% played computer games for up to 1 hour a day, 53% read articles on the internet for up to 1 hour a day and 59% read books also for up to 1 hour a day. This draws the picture of an active teenager, engaged with computer games, online and print media.

When asked to reflect on their literacy skills as secondary school students, none rated their reading as inadequate. However, 73% acknowledged that they needed to develop good reading skills for their academic development. Most of the participants (81%) spoke Maltese exclusively at home. Fifty-nine percent of participants reported that they borrowed library books once a month or more often and 67% of those who borrowed books borrowed them in English. Ninety-five percent had a computer at home as a younger person, 89% had the use of a desk or table dedicated to their study purposes and 93% had their own books but only 45% reported having more than 20 books of their own before age 16 years. Thirty-five percent of participants read daily newspapers and 57% read magazines as younger persons. As secondary school students, they attended a selective public secondary school (54%) and a smaller number attended a Church secondary school (42%). The remaining 4% comprised participants who attended state comprehensive or independent schools. Three percent of respondents described themselves as having weak overall ability, 66% as having average ability and 31% as having above average ability.

Participants' level of English reading comprehension

The Suffolk Reading Scale 2L3 is normed on a United Kingdom population and reaches a ceiling of just under 16 years. Long-term assessment tests indicate that reading gains slow down significantly around age 17 years (NCES, 2014). Thus, one may assume with relative safety that little substantial progress in reading occurs beyond age 15 years. Scores in the participants' interquartile range (middle 50%) ranged from a UK reading-comprehension age of 13 to just under 15 years. Scores within one standard deviation of the mean (middle 68% of the participants) ranged from the age equivalent score of 12 years 4 months to over 15 years 4 months. This suggests wider variability than is desirable with a consequent effect on the participants' level of the English language generally and their ability act as useful models for English usage in a classroom teaching situation.

A Mann-Whitney test using a median split analysis of the SRS L3 data found that the scores of the higher achieving group (Mdn = 58) were significantly different to the scores of the lower achieving group (Mdn = 52), $U = 10.5$, $p < 0.05$. This validates the use of the median split for the analyses described below.

A chi-square test was performed to examine the impact of the frequency of English spoken at home on students' literacy skills, and no relationship was found between the two, $\chi^2 (1, n = 79) = 1.2$, $p = .36$.

A chi-square test was performed to examine the relationship between borrowing books regularly and students' reading comprehension, and no relationship was found between the two variables, $\chi^2 (1, n = 79) = .02$, $p = .9$. When a comparison was made between performance on the reading comprehension measure and whether the language of the books borrowed was English or some other language, a relationship was found between the two variables, $\chi^2 (1, n = 79) = 4.64$, $p = .031$, $\phi = .27$. This supports the alternative hypothesis that reading books in English is associated

with better performance on the reading comprehension measure. The phi value of .27 is interpretable as having a medium effect size (Cohen, 1988). No relationship was found between how many books were read in English per month and participants' performance on the reading comprehension test, $\chi^2 (1, n = 53) = .48, p = .38$. No relationship was found between reading comprehension and having had a computer at home as a younger person, $\chi^2 (1, n = 79) = .27, p = .53$, or having had the use of a desk or table dedicated to study purposes, $\chi^2 (1, n = 79) = .4, p = .4$. No relationship was found between having 25 or more books and less than 25 books as a younger person and reading comprehension, $\chi^2 (1, n = 73) = .261, p = .609$.

A relationship was found between reading daily newspapers as younger persons and the participants' performance on the reading comprehension test, $\chi^2 (1, n = 79) = 4.43, p = .04, \phi = .24$. This supports the alternative hypothesis that reading daily newspapers is associated with better performance on the reading comprehension measure. The phi value of .24 is interpretable as having a medium effect size (Cohen, 1988). No relationship was found between reading magazines and the participants' performance on the reading comprehension test, $\chi^2 (1, n = 79) = .09, p = .77$.

A relationship was found between the type of school attended by the participants and their performance on the reading comprehension test, $\chi^2 (1, n = 79) = 5.93, p = .02, \phi = .27$. This supports the alternative hypothesis that school type is associated with performance on the reading comprehension measure. The phi value of .27 is interpretable as having a medium effect size (Cohen, 1988). Here, 60% of State school participants were classified as low scoring on the reading comprehension test and 40% were classified as high scoring. Conversely, 68% of Church and Independent schools participants were ranked as high scoring and 32% from this school sector were classified as low scoring. Another relationship was found between the fathers' level of education and the participants' performance on the reading comprehension test, $\chi^2 (1, n = 76) = 5.38, p = .03, \phi = .27$. This supports the alternative hypothesis that fathers' level of education is associated with performance on the reading comprehension measure. The phi value of .27 is interpretable as having a medium effect size (Cohen, 1988). Here, 97% of the low scoring group had fathers with a low level of education and the remaining 3% had fathers with a higher level of education. Eighty percent of participants in the high scoring group had fathers with a low level of education and the remaining 20% had fathers with a higher level of education (advanced level/ISCED level 5 and above). No relationship was evident between mothers' levels of educational attainment and the participants' performance on the reading comprehension measure, $\chi^2 (1, n = 76) = 2.89, p = .24$.

Finally, a chi-square test was performed to examine the relationship between the three self-reported levels of ability and students' reading comprehension, and no relationship was found, $\chi^2 (2, n = 79) = .53, p = .77$.

Discussion

This discussion focuses on the demographic and educational variables associated with higher performance on the reading comprehension assessment. One proviso to be made is that the group of participants is small and by virtue of being in higher education, is a self-selected higher achieving group. Therefore, some findings reported in the literature about the general population cannot be borne out.

Notwithstanding, the findings of this present study provide interesting insights into the background of the participants in the specific group studied.

There was a moderate association between borrowing books in the English language and better performance on the English reading comprehension measure. This supports Trzesniewski et al.'s (2006) assertion that childhood reading skills have positive all round effects beyond the classroom. A similar effect size was identified for the relationship between reading daily newspapers as younger persons and performance in the reading comprehension test.

A clear distinction emerged in relation to English being spoken at the school attended. Participants receiving their secondary education in Maltese speaking schools were more likely to feature in the lower performing group on the reading comprehension test than participants who received their education in English speaking schools. This is in keeping with Sénéchal, Lefevre, Thomas and Daly (1998) who documented the positive effect of language exposure and literacy experiences on language. This strong association between the type of school attended and participants' reading comprehension requires further examination because the social selection of students who attend English speaking schools is probably more important than the type of school attended (Martinelli & Raykov, 2015). These findings support Kieffer's (2012) and Bradley and Corwyn's (2002) assertions that socioeconomic status and education are inextricably linked. The last relationship to emerge was between the fathers' level of education and the participants' performance. Participants falling in the upper half of the median split tended to have better-educated fathers than those falling in the lower half. This was in keeping with Kutner et al. (2007) who documented established links between better-educated parents and children with improved literacy outcomes. Furthermore, it is also in accordance with Sapolsky's (2005) link between socioeconomic status and social capital, all of which have the underpinnings of higher levels of education.

Finally, one must breach the effect of intelligence on developing reading comprehension. The consensual view is that the domain-general IQ is inadequate to explain reading achievement unless replaced by a composite of cognitive processes that are important predictors of reading fluency and reading comprehension (Georgiou & Das, 2014). Thus, IQ may be irrelevant for reading, but intelligence is not and one would expect more intelligent individuals to perform better in most areas of academic endeavour.

In this study, participants' self-ranking on an ability continuum was not associated with their literacy competence. The author posits the view that while the positive relationship between intelligence and reading comprehension may hold true for broad areas of achievement, it may not hold for the narrowly focussed test that was administered. Even so, this being a select group, participants' range of ability would be expected to be less diverse than that of the wider population, thereby leading to a nonsignificant result. Other findings arising from this study suggest that in line with Coultas and Lewin (2002) and Richardson and Watt (2006), participants came from families with lower SES and the majority had fathers with no more than a secondary level of education, even if some possessed additional technical certification.

In conclusion, results require cautious interpretation because the participants in this study represented only one stream in the teacher education programme in one particular year thereby limiting the transferability of the findings to other groups. A deeper analysis would also require face-to-face interviews and in-depth questioning with the participants.

Implications for policy and practice

The characteristics of the participants provide some evidence that is useful for the decision-makers and stakeholders like recruitment bodies and teacher educators. This study suggests that some candidates entering teacher education possess lower than desirable English language skills,

with 25% of participants demonstrating a level of English comprehension that was lower than that of a 13-year old native-born first language speaker of English. This suggests that candidates intending to serve as primary school teachers may lack the competence to lay the foundations for language skills in their pupils. Additionally, based on the candidates' self-reports, the majority of respondents identified a need to develop better reading skills for their academic progress. One way to address this issue would be to introduce higher entry requirements. This will almost certainly ensure that only the more able students in English may be admitted to the primary school teacher education course but this double-edged measure could have a deleterious effect on the number of the applicants. Alternatively, English enrichment study units followed over the duration of the teacher education programme could help improve the English language skills of those deemed to need such help. Other options include recruitment from different student cohorts, namely from the Independent school sector but this is not viable unless the public perception and valuing of the teaching profession is radically improved. In conjunction with the above, better incentives for the teaching profession like significantly enhanced pay and benefit packets and improved career prospects may serve this goal. This should eventually translate to increased teacher effectiveness and learners who are better equipped to participate in a workforce that more than ever before, calls for higher entry-level qualifications and preparedness.

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Section I
**IDENTITY, PROFESSIONALIZATION
AND TOMORROW'S TEACHERS**

Competing conceptions of the Educated Public
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Abstract

*Alasdair MacIntyre's paper 'The idea of an educated public' followed on his frontal attack in *After Virtue* on the 'failed' intellectual project of the Enlightenment and on its liberal heritage. His argument, in the paper, was that the only way we can save ourselves from that failure is by restoring the idea of an educated public modelled on the type found in eighteenth century Scotland. This article takes up the issue of the 'crisis' of modernity, and argues that MacIntyre's 'public' is just one possible one and not necessarily the best. Other, competing conceptions of an educated public have been proposed, among others by Dewey and Habermas, that do not necessitate the conservative solution of going back to the past.*

MACINTYRE'S CHALLENGE

In 'The idea of an educated public' Alasdair MacIntyre refers to what he describes as the hopeless task teachers and educational systems have set themselves in contemporary liberal democracies to socialize young people and, at the same time, educate them to think for themselves [1]. The two purposes, he declares, are incompatible. But this incompatibility is not a "timeless conceptual thesis" – they can be made compatible under certain types of social and cultural conditions, though not those current in Western societies. The reason why these conditions are not available has to do with the liberal modernist post-Enlightenment culture of these societies which, MacIntyre says, excludes the possibility of the existence of an 'educated public'. It is only where an educated public exists and where introduction into it is the clear goal of education and of teachers that the currently incompatible purposes of enculturation and independent thought are possible.

MacIntyre's lecture in London, where he gave it in the spring of 1985, was one of the three public lectures held in honour of the eminent British philosopher Richard Peters, who was also present for the occasion. Peters was the man who brought the concept of the educated person to the philosophical debate on education toward identifying the qualities of such a person with the view that these should become the aims of education and school curricula. And it was very clear that MacIntyre was posting a direct challenge to this educational programme just as his book *After Virtue* had posted an energetic challenge to the liberal culture and politics which the programme rationalized and supported a few years earlier [2]. The lecture itself, and the programme for education for education MacIntyre was proposing in it, appeared to make considerably less

impact on philosophers of education at the time than had his book. Graham Haydon's conclusion about it in his introduction to *Education and Values*, where it was subsequently printed together with the other lectures, was that "anyone who has hopes of genuine dialogue across the diversity of beliefs and values in our society can be expected to warm to the idea of an educational public; this, perhaps". He continued, "will be a condition of genuine dialogue going on, and we can hope that the education system, if it is working well, will bring into being an educated public" [3].

Haydon thus seems to have missed MacIntyre's point that the current education system cannot produce 'genuine dialogue' because of the deep socio-cultural causes MacIntyre has identified in his books. Whatever lack of such dialogue exists at present cannot, according to MacIntyre's analysis, be redressed by internal improvements to the system which will leave the general society and its educational culture unchanged. In his view there can be no hope of 'genuine dialogue' in educational systems that reproduce current Western societies. Haydon also responds to MacIntyre with the suggestion that what 'we' (one assumes that he means 'we philosophers') should be doing is looking out to see whether "as a result of different aspects of the philosophies and the forms of education" that have prevailed within "different quarters" there is not already an "undue prevalence both of skepticism and dogmatism such that no worthwhile dialogue is possible" [4]. MacIntyre, on the other hand, has no doubt that there is and that it necessarily derives from the nature and underlying cause of our cultural and moral pluralism, which is the Enlightenment's mode of discourse [5].

Thus we cannot, for instance, resolve our disagreements when they occur by working back to the premises that underlie our competing positions because "when we do arrive at our premises argument ceases and the invocation of one premise against another becomes a matter of pure assertion and counter-assertion" [6]. An educated public, on the other hand, refers to "a common body of texts, texts which are accorded canonical status within that particular community" [7]. Its other essential ingredients are: (a) the existence of "a tolerably large body of individuals, educated into both the habit and the opportunity of active rational debate, to whose verdict appeal is being made by the intellectual protagonists" who "in their communication with one another must recognize themselves as constituting a public" [8]; and (b) "shared assent, both to the standards by appeal to which the success or failure of any particular thesis or argument is to be judged, and to the form or rational justification from which those standards derive their authority" [9].

MacIntyre's theory about an educated public continues to be elaborated in *Whose Justice Which Rationality?* And even more deeply in his most recent book *Three Rival Versions of Moral Inquiry* [10]. In his Richard Peters lecture and in the first of these two books he goes back to the remaking of the Scottish universities in the first half of the eighteenth century as Scotland, having lost her political sovereignty, strove to redefine her national identity and provide a milieu for nationwide debate on her future development, as a paradigm for such a public. But in *Three Rival Theories of Moral Inquiry* he goes further back to a broader and more universal grounding for a politics of consensus in Thomist philosophy. MacIntyre's proposal that education should be regarded as a preparation for, and an ongoing participation in, an educated public suggests a very different agenda for philosophy of education than the familiar liberal one which begins rather with identifying the qualities of individual educatedness and then discusses the conditions under which these can be realized in schools and other educational institutions. Also, inevitably, the expression 'educated public' brings John Dewey to mind and invites comparison between MacIntyre's and Dewey's conception of such a public. For both proposing an educated public means the making or restoration of some kind of community. Finally, MacIntyre's challenge has

powerful philosophical backing from the critique of modernity which is currently fashionable in many philosophical circles but which, apart from the notable exception of Habermas, is in general antagonistic to communitarian politics.

The Educated Public and the Crisis of Modernity

It is not the object of this paper to engage in a critique of MacIntyre's version of an educated public but to locate the basic challenge that he makes to liberal educational theory within the broader context of a philosophical debate that has occurred over the past years, mainly outside the confines of philosophy of education. MacIntyre's own version of this challenge could be roughly outlined as follows:

1. There is a cultural crisis, illustrated most graphically in the current state of philosophy and more especially moral inquiry, in the Western world, and this crisis, which reveals itself mainly in the breakdown of the very possibility of dialogue, is due to the failure of the Enlightenment's cultural project and of the educational philosophies that reflect it.
2. Symptomatic of this failure is the disappearance of a 'public' where the conditions that make that dialogue possible would ideally materialize.
3. The way out of the crisis is, therefore, to discover an alternative socio-cultural project which would restore such a public and stem the crisis.
4. An alternative socio-cultural project and educational philosophy which fits the bill is available already – all we need to do is to return to a past where such a public already existed in modern times, and to study the cultural and educational conditions that made it possible within a particular tradition.
5. Educational systems (particularly the universities) and the teachers operating them should reorientate their activities towards creating such a public and preparing suitable members for it.

But, while those who, like him, advocate the restoration or creation of an educated public would be in agreement with him on points (1), (2), (3) and (5), many would disagree on the crucial point (4).

The first of these statements, the deeper disquiet with the cultural and philosophical claims of the Enlightenment which MacIntyre discussed in *After Virtue* and afterwards, this sense of what is often described as the 'crisis' of modernity, has become equally familiar to us through writings from very different philosophical positions and traditions from his own. The French poststructuralists, the critical theorists, philosophical hermeneutics, all in their own way, share this disquiet. But their dissatisfaction is graded in degree and comes through different philosophical routes. The poststructuralist critique, with the potentially anarchic implications implied by its design to overthrow 'rationality', constitutes the most radical expression of that dissatisfaction. The poststructuralists interpret the failure of modernity to replace the traditional authority of religion and tradition with philosophy and autonomous reason to signify the failure of rationality itself. The critical and hermeneutic theorists, on the other hand, like MacIntyre, propose revisionary conceptions of rationality. Like the poststructuralists, they also believe that the project of modernity as proposed by Kant and Hegel was successfully demolished by Nietzsche but they refuse to throw the baby out with the bathwater; they refuse to abandon the standard of rationality.

The negative critique of modernity and its politico-economic and cultural mainstays was, of course, made not only by Nietzsche but by Marx, Weber and Dewey, and has continued to be

sustained from different Marxist and humanist viewpoints. The poststructuralists, however, following Nietzsche, carry their critique against humanism itself, rejecting the possibility of any 'emancipatory theory' of socio-political action, or indeed of any hope of true human progress. Their view is that inevitably such theories only re-cycle the old political metaphors, creating new dominant linguistic, socio-cultural and finally political regimes and committing new acts of terrorism against those which fail to find favour within the new discursive paradigms; they do not escape the circle of power but only create new ones. The poststructuralists, therefore, not only greet Nietzsche's successful demolition of metaphysics and epistemology enthusiastically, they also follow him into nihilism. Most radically they are suspicious of 'dialogue' itself and project manipulative power as the distinctive feature of social relationships. They argue for a return to 'writing' as the central mode of human communication rather than face-to-face conversation, especially to literary forms of writing that focus on self-creation. For the poststructuralists, therefore, society can never be an educated public; it can never be anything but a 'disciplined society', a panopticon.

But, though this poststructuralist hostility to the idea of an educated public is a powerful one intellectually, the 'failure' of modernity, in effect, leaves at least two other alternative routes open beside Nietzschean nihilism: (a) going back to the pre-modern past and re-establishing the authority of some 'tradition', MacIntyre's neo-conservative solution; and (b) reformulating rationality in a manner which displaces the source of its authority from the autonomous subject and locates it in the sphere of communicative action, which is the project of critical theory after Habermas. What the other critics of modernity, including MacIntyre, share with the poststructuralists is their unhappiness with the idea of a single transcendental rationality, a pure ahistorical reason which would ground our ethics and our political culture, which it was the ambition of post-Enlightenment philosophy to establish. What they share among themselves, on the other hand, is the alternative of localizing rationality in the site of discursive practices which the poststructuralists, on the contrary, reject and identify with the exercise of terroristic power. For MacIntyre, the error of post-Enlightenment liberalism lay in the belief that tradition could be dispensed with and replaced by the mortality of an autonomous self. The clue to the refinding of an educated public, for him, lies in the restoration of the kind of tradition that once made an educated public possible: i.e. a tradition based on a teleological conception of human being.

The key to the difference between Dewey and Habermas, on the one hand, and MacIntyre on the other, lies in the way they react to the pluralism that characterizes modernity. MacIntyre distinguishes between a pluralism which is "an ordered dialogue of interesting viewpoints" and one which is "an unharmonious *mélange* of ill-assorted fragments" incapable of dialogue [11]. Naturally, he identifies modernity with the latter, which Dewey and Habermas would similarly regard negatively, as would any proponent of a communitarian socio-political standpoint. But for them there is no need for the canonical texts of a tradition or for some common vision of 'man as he could be if he realized his *telos*' to make ordered dialogue possible. What is needed is a willingness to be involved in and to play according to the rules of certain kinds of discursive practices for which we use the general label 'democracy'. Habermas, in particular, has identified the ideal conditions for such practices in the process of defining the conditions for an 'ideal speech' situation. Dewey never got so far, but nowhere is the implication that such a theory is needed stronger than it is in his writing.

Communitarianism and the Educated Public

O'Connor, in a rather uninspired review of MacIntyre's paper, comments that MacIntyre cannot be assuming that his example of an educated public is "the only one in recorded history". "For",

he writes, “one could plausibly argue such a case for some Islamic societies and some in which Roman Catholicism or even Marxism has been the dominating intellectual influence” [12]. His choice of examples of an ‘educated public’ insinuates that educated publics are necessarily fundamentalist societies. MacIntyre’s argument that there can be no educated public unless there are “texts that are accorded canonical status within that particular community” may have encouraged this conclusion. MacIntyre continues to explain what he means by ‘canonical status’, namely that they are indeed texts that “provide a final court of appeal” but only in the sense that “appeal to them must be treated with a special seriousness, that to controvert them requires a special weight of argument” [13]. This explanation seems to mitigate somewhat the charge of fundamentalism because it does allow, at least, the possibility of controverting the texts, but his insistence on ‘canonical texts’ means that a pluralistic society can never be an educated public as he understands it; the best it can achieve is to have several fragmented educated publics coexisting together in a state of “constrained disagreement, of imposed participation in conflict” [14].

Habermas and Dewey, on the other hand, would agree neither with O’Connor’s choice of examples of an educated public and with his suggestion that an educated public must rest on fundamentalist premises of some kind, nor with MacIntyre’s conclusion that ‘constrained agreement’ is the alternative to a common allegiance to ‘canonical texts’. Their choice of historical examples of educated publics would be very different from O’Connor’s stretching back rather to a democratic tradition which began with the Athenian *polis*. For both it is important that what we would want to refer to as an educated public is, first and foremost, a democratic public, in the sense of the word ‘democratic’ that they share, where it stands for a way of life involving highly communicative and participative citizens. In this sense a democracy is *ideally* an educated public. Both, unlike MacIntyre, are confident also that the restoration of ‘a public’ is possible under the conditions of current pluralistic liberal democracies. Both believe in the possibility of a consensual politics based not on the obliteration of plurality or on ‘constrained agreement’ but on a common faith in democratic procedures which an educated public would be able to engage with intelligently.

Dewey (and Pierce before him) stands in the foreground of a post-Hegelian, non-Marxist communitarian tradition in American democratic thinking which has grown particularly strong since the beginning of the 1960s and against the traditional liberal individualism. Dewey did not reject the liberal values in themselves, he simply believed that these had been appropriated and distorted by capitalism with its overriding economic ethic and could be given new meaning with a communitarian reorientation [15]. Habermas seems to hold more or less the same political position. And, indeed, the traditional assumption that there is an unbridgeable gulf between liberal and communitarian values (a gulf characterized as a conflict between ‘individualism’ and ‘collectivism’) is becoming less and less fashionable among different political writers. On the one hand, it is doubtful that any liberal political theorist has ever embraced the kind of individualistic ‘atomism’ communitarians have characteristically accused liberals of, or rejected the communitarian claim that individuals are inescapably embedded in their social world. Today, certainly, as Caney says, most liberals accept not only this ‘descriptive’ communitarian claim of social embeddedness but also the ‘normative’ claims about the values of community and solidarity which communitarians insist upon [16]. Communitarians, on the other hand, including Dewey himself, are not out to eliminate individuality but to reinterpret it in a way which would reintroduce a missing communal dimension in modern social life.

In sum, the current situation seems to be that, while liberals are less prepared than they may have

been in the past to disparage communitarian socio-political perspectives and to emphasize the politics of individualism, communitarians are keen to exorcise the old ghost of collectivism and to endorse both the importance of individuality and of the traditional liberal values. The growing realization from the liberal side, as Amy Gutmann has put it, is that “communitarianism has the potential for helping us discover a politics that combines community with a commitment to basic liberal values” [17], very much as Dewey believed. Communitarian philosophers on their part, like Walzer and Barber, for instance, have tried to give accounts of communitarian politics that are indeed consonant with liberal values. In short, the classic politics of confrontation between liberalism and communitarianism seems to be superseded, or on the way to being superseded, in the writings of social democrats by a politics which seeks a compromise reinterpretation of the liberal emphasis on the value of individual freedom that gives due value to equality, solidarity and democratic participation.

This does not mean that there are not still certain well-founded misgivings about communitarian politics. Martha Nussbaum in a recent commentary on Anglo-American moral philosophy expressed her concern over the potential connection of communitarian thinking with parochialism and ethnocentricity, her fear that it is “likely to become linked with some sort of political conservatism, and with the abandonment of the Enlightenment’s radical demand for human equality across differences of ethnicity, nationality, class, gender and race” [18]. And the same concern has been expressed more guardedly by Gutmann [19] and by Cochran [20]. Cochran has argued, in addition, that communitarian theory, even in its liberal-democratic interpretations by Walzer and Barber, is still disappointingly thin and needs to sort itself out on many issues. At the same time, he expresses his support for Gutmann’s evaluation of the rapprochement of liberal and communitarian thinking cited earlier and makes his own suggestions for thickening the theory. There is no doubt that Nussbaum’s concern is justified in the case of MacIntyre, for instance, and still more so in the case of Richard Rorty, but not in the case of Dewey and Habermas who still write from within the Enlightenment’s tradition. Dewey, in particular, insisted that, notwithstanding the importance of neighbourhood relationships, we should never lose sign of the Enlightenment’s overarching vision of a “great community” [21], and made openness to other communities a key characteristic of a “democratic community” [22].

Rorty’s Fourth Way

It is possible that Rorty’s self-confessed ethnocentricity which has, in fact, opened him to the change of neoconservatism, is the unmentioned target for Nussbaum’s remark. Rorty is interesting because he suggests a fourth way out of the ‘crisis of modernity’, different from the other three outlined earlier, and because he claims philosophical continuity with Dewey. Rorty’s fourth way is to effect an accommodation of romantic poststructuralism with Deweyan pragmatism. Like the poststructuralists he is anti-humanist but stops short of their skepticism about the possibility of human progress in liberal-democratic societies, declares himself a social-democrat, engages in loquacious and eloquent support of Western liberal capitalism, and pronounces himself on the side of Dewey’s “philosophy of social hope” as against the “despair” of the poststructuralists. In the process he engages in an apparently Deweyan political discourse which makes extensive reference to democratic community and solidarity, and therefore encourages the false idea that he is similarly sympathetic to the notion of an educated public.

In his first book, *Philosophy and the Mirror of Nature*, the essence of Rorty’s attack on post-Kantian ‘foundational epistemology’ was to deny the cultural hegemony which it claimed for philosophy, and to deny all hegemonic cultural projects in general [23]. Instead, he proposed a hermeneutical culture distinguished precisely by the fact that it has no hegemonic ambitions

to be epistemology's 'successor subject', and which casts the philosopher not as "guardian of rationality" [24] but as "the informed dilettante, the polypragmatic, Socratic intermediary between various discourses" [25]. Rorty's new intellectual has no interest in getting at the truth of things, in creating theories or doing any 'constructive' thinking in general, in taking up positions, grounding intuitions, offering arguments etc. In sum he or she is not interested in doing philosophy as we have always understood it, but is either intent on his or her own self-description or 'edification', or is playfully, reactive to others, offering satires, parodies, aphorisms and other kinds of 'literacy' writings instead of theories or arguments.

Socially, this description renders the intellectual '*intentionally* peripheral" [26] (his italics). Rorty also gives us another rather different description of the intellectual in his book: as a participant in a consensual politics of 'conversation' in which the community is the recognized source of epistemic authority and which involves its members in face-to-face encounters in which the better argument is politically or epistemically decisive. According to this description, instead of being marginalized and subversive, the intellectual is a conversational companion, a hermeneutical intermediary between different discourses, one who is in the business of promoting imaginative understanding, of helping people see how things can 'hang together' in different ways rather than one who is narcissistically engaged in self-creating 'poetry'. But this second Deweyan picture (heavily influenced also by Gadamer) is subsequently abandoned.

In *Consequences of Pragmatism* the 'post-philosophical' culture Rorty envisaged to follow the demise of epistemology is a poststructuralist one which has "no ruling principle, no centre, no structure ... no respect for hard fact, for that area of culture-science in which the quests for objective truth takes precedence over emotions and opinion" [27]. It is a culture which still has a place for the "all-purpose intellectual" who is "ready to offer a view on pretty much anything. In the hope of making it hang together with everything else" [28], who resembles "the modern Western 'culture critic' [who] feels free to comment on anything at all" [29], but which obviously hardly contains the qualities of a community, even less of a *liberal* community, never mind the qualities of an educated public.

Subsequently Rorty became more interested in defending the marginality of the intellectual than in proposing him or her as a conversational partner [30]. In *Contingency, Irony and Solidarity* [31] his response to the charge that the aestheticized culture of his post-philosophical society was politically and culturally incoherent [32] was to propose a 'liberal utopia' characterized by a radical bifurcation between the realms of private and public action in which the intellectual is featured as a strong poetic ironist in private and a pragmatically cooperative citizen in public [33]. The fundamental premise for this bifurcation is that the demands of self-creation and of human solidarity, though equally valid, are "forever incommensurable", and impossible to bring together in a single theory. The view that "what is most important to each of us, is what we have in common with others – that the springs of private fulfilment and solidarity are the same", Rorty declares, is therefore false. The question is how to face this fact without turning one's back on the community [34].

In thus rejecting what is effectively the premise of Dewey's and any communitarian's thinking, which is that "the strings of private fulfilment and solidarity" are, indeed the same, Rorty does, in fact, seem to subvert the whole underpinning of communitarianism and of an educated public. His response is a solidarity with others based on our imaginative propensity to see strange people as "one of us", as "fellow sufferers", and an appeal to our common abhorrence of cruelty [35]. But this is evidently not the kind of solidarity that makes a public. In fact Rorty says that the

imagination which it requires depends not on face-to-face encounters or on 'conversation' but on reading fiction or "genres such as ethnography, the journalist's report, the comic book, the docudrama, and, especially, the novel" [36]. Nor is communal solidarity encouraged by his liberal utopia's idea of justice which merely consists in "letting its citizens be as privatistic, 'irrationalist', and aesthetcist as they please" [37], in facilitating the 'alienation' of the strong poet, and which makes no mention of any principle of equality, never mind of a positive solidarity. None of this has anything in common with Dewey. Indeed, as Bernstein points out, "Rorty destroys and betrays Dewey's legacy" [38], precisely because Rorty's politics seems to be one in which there is no public space – the space in which human beings come together to *debate* and argue with each other. This is what Dewey (one of Rorty's heroes) called the "eclipse of the public" [39]. In fact, not only does Rorty not, as MacIntyre and Dewey do, propose education as preparation for membership in a public, he proposes "edification...in which students learn to reinvent themselves" instead [40].

The Educated Public and Our Concept of Education

It is very important at this point to make explicit the fact that what the notion of an educated public needs, besides a theory of community, is a considerably broader conception of education itself than that which most educational theorists seem prepared to work with. Gutmann makes this point also when, opening with Dewey's assertion that "education should not cease when one leaves school", she criticizes the tendency of philosophers to concentrate on the school with the excuse that an exhaustive study of the other potential educational changes in society would be "exhausting if not impossible", and that anyway most contemporary political controversies over democratic education concentrate on schooling [41]. To succumb to that argument, however, Gutmann very rightly says, is to "perpetuate the popular impression that schooling fully constitutes democratic education, an impression that is false even on the strict understanding of education as the deliberate transmission of values and knowledge... Political theory", she continues, "must carry our concerns about educational beyond both schooling and our present political agenda" [42].

Why not educational theory also? Gutmann addresses the question of what the state can contribute to post-school education, to what she promisingly terms a "public culture of learning", and discusses the potential role of libraries, and television in particular, from this perspective. Walter Feinberg also wants a "public that is more than simply a distributor or recipient of resources, more than simply an agent in a market and more than a cluster of individuals who happen to consume a common set of symbols" [43]. Feinberg argues, in line with Gutmann, that the terrain of educational studies should not be limited to schooling but should include the process of social and cultural reproduction in general. In *Understanding Education: toward a reconstruction of educational inquiry* he suggests that the global agenda for educational studies should be: "to inform us about the nature of the "knowledge code" of a given society and the way in which the code is processed by different individuals and groups, through different frames and with different implications for the reproduction of specific skills and modes of understanding" [44], though he sets himself a much more modest task in the book: "to shift the focus of educational scholarship from schooling *per se* to the process and forms of generational change" [45].

Feinberg complains that current educational systems are distorting their democratic functions by focusing on the skills that make for successful market participation rather than "providing interpretive and normative skills leading to participation in an enlightened public" [46]. This may be why, as Maxine Greene says, there does not seem to be an interest in such a public today notwithstanding the clear need for social and educational renewal [47]. "Almost never", she writes, "is there an expressed concern about the public realm; there is silence about renewing

the common world should be” [48]. Greene argues that this lack of interest is itself a symptom of the growing fragmentation of society and an alienation of people which, in turn, produces “stasis, petrification, fixity” and a concomitant loss of freedom [49]. The need for a public today, she concludes, is in fact even greater than it was in Dewey’s time but the current difficulties in bringing it into being are different and also more formidable since “the vacuum is filled by the messages coming from the media which, more often than not, enhance the sense of givenness and objectification” [50]. She ends her paper with an impassioned appeal for “each of us, from his or her own speciality and vantage point” to exercise his or her power to recreate a common world anew with others, “because we are together in speech and action and because possibility spreads before us, and because there are boundaries to break through” [51].

The implication of all this for our understanding of and our research into education, to return to the point made by Gutmann and Feindberg, was already clearly perceived by Dewey who did not, in fact, adhere to the “strict understanding of education as the deliberate transmission of knowledge and values” which Gutmann and Feinberg refer to. On the contrary he went for the “loose undifferentiated” meaning of education which says that “living together educates” and which therefore includes considerably more under ‘education’, in the way of learning, than what is provided by libraries and the media, important as these are. It includes also the general social environment through which we learn informally. Indeed, the notion of an educated public, in itself, implies a broadening of our concept of and interest in education as a social phenomenon beyond the school and forces us to entertain the contribution of other learning agencies in the social world besides, whether one restricts oneself to formal agencies like Gutmann does, or moves into the more intangible realm of the informal messages projected by the social environment, of the society’s ‘hidden curriculum’.

Habermas and Dewey

On the other hand, there is a problem, a paradox, involved in the suggestion that educational systems and educators should focus on preparing students for membership in an educated public which none of the writers I have referred to, including MacIntyre, consider: how can the educational system prepare members for a public which, as they themselves claim, does not actually exist, that still needs to be made? It seems that teachers could only, at best, prepare potential members for an ideal educated public. How would these potential members fare in the absence of a real public? Viewing education as social and cultural reproduction, or “re-creating the society that we share”, implies a failure to recognize or at least address this paradox when such a view is held by writers who concurrently lament the non-existence of a public. Dewey himself insisted that the school must go beyond mere reproduction, that it must be a catalyst, an active agent for the creation of a new social order, and that it could only do that adequately by being itself constituted as a democratic community. Many educators and theorists, however, draw back from this conclusion and are prepared to hope, as Haydon does in the case of dialogue, that the solution may still be found within the educational system itself. Those, in fact, who argue that the introduction of some instruments of democratic practices into the school (students’ councils, debating societies, etc.) are enough, have surely either missed this point or lack this kind of concern for the creation of a democratic public Dewey expresses.

Does the educated public require a “theory of emancipation” if it does not need a return to an earlier tradition? Dewey himself seemed to think not. It seemed enough for Dewey for a society to be ‘a community’ responding to his democratic criteria and permitting the individual’s unrestricted ‘growth’ within it. Dewey seemed to think that the criterion of unrestricted communication and equitable intellectual opportunity was enough and that one did not need a theory either of

democracy or of education to work with. Social progress, for Dewey, requires us not to have some utopian vision or emancipatory theory but to experiment pragmatically with what already exists, what already lies within our current experience; “to extract the desirable traits of forms of community life which actually exist, and employ them to criticize undesirable features and suggest improvement” [52]. But do we not need an *a priori* “theory of improvement” to give us direction? Dewey would say no, and in this way he varies in a crucial way from Habermas.

Habermas himself establishes his links with Dewey very explicitly when he writes: “From the outset I viewed American pragmatism as the third productive reply to Hegel, after Marx and Kierkegaard, as the radical-democratic branch of young Hegelianism, so to speak. Ever since, I have relied on the American version of the philosophy of praxis when the problem arises of compensating for the weaknesses of Marxism with respect to democratic theory” [53]. Like Dewey, Habermas expresses concern and has written extensively about the ‘disappearance of the public’, but he also carries with him besides the tradition begun by the earlier critical theorists, particularly Horkheimer and Marcuse, who both wrote a great deal about the negative rationalization of society by way of an all-pervasive technical-instrumental mentality operating in current post-liberal societies through the machinery of their economic and administrative apparatus and with the mode of the ‘culture industry’ represented mainly by the mass media.

Habermas himself, while acknowledging these problems, rejects the “monolithic picture of a totally administered society” which emerges from their analysis – an analysis which also evidently leaves no space at all for the emergence of a public, a picture which depends on describing post-liberal societies as typically embodying “a repressive mode of socialization that shuts out inner nature and an omnipresent social control, exercised through the channels of mass communication” [54]. This picture, supplemented with a radical loss of hope in revolutionary Marxism, was what led the early critical theorists to a pessimism which is uncannily similar to that of the poststructuralists and which Habermas rejects. Habermas, contrary to his predecessors, holds that the conditions for human emancipation are still present in post-liberal societies even if there is massive evidence of the pervasive power of a technical-instrumental rationality. This is because, he argues, the post-liberal societies are not as powerful and internally cohesive as the earlier theorists made them out to be. On the contrary, they are, he argues, necessarily prone to recurrent legitimation crises of different kinds which provoke popular internal reaction. The Marxist critique of society and theory of history based on the production paradigm which makes the outcome of the early critical theorists’ conclusions about post-liberal society inevitable, Habermas says, is fatally flawed in that it ignores the decisive existence of an unpredictable ‘lifeworld’, the normative domain of human interaction which cannot be described deterministically and which embodies rationality structures that are not necessarily or even typically technical-instrumental. The existence of this domain is what makes the picture of a ‘totally-administered society’ implausible and what holds out the hope that a public spaces, or public spaces, can be carved out within post-liberal societies and that the public that emerges to fill that space will be an educated public.

Habermas, in short, has no doubt that an educated public is possible even in post-liberal societies, and that the lifeworld actually throws up emancipatory social movements that take the form of educated publics. As Thomas McCarthy puts it, for Habermas: “In one sense it is only socialised individuals who learn, but the learning ability of individuals provides a ‘resource’ that can be drawn upon in the formation of new social structures. The results of learning processes find their way into the cultural tradition; they comprise a kind of cultural potential that can be drawn upon in social movements when unsolvable system problems require a transformation or the basic forms of social integration” [55]. It is this basic faith in the power of learning to transform people

and societies that also joins Habermas with Dewey, as well as their common understanding of democratic theory and their common identification of the site of communicative praxis as the locus where both human emancipatory learning and the processes of democratic negotiation must be studied.

Habermas's general philosophical project is well-known: (a) a theory of pragmatics which defines the conditions of Ideal speech and, at the same time, permits us to detect 'distorted' communication at the ground level is followed by (b) an account of the foundation for a general theory of socialization described in the form of theory of the acquisition of communicative competence, and capped with (c) a theory of social evolution which he views as a reconstruction of historical materialism [56]. This project offers a structure for filling in and giving substance to a theory of education and society which Dewey only sketched out. Not only that: the emphasis it places on the insidiousness of 'distorted speech' offers a critical dimension to the account of an educated public which Dewey left unconsidered.

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Section II
**EDUCATIONAL DEVELOPMENTS AND THE ROLE OF
THE FACULTY OF EDUCATION**

Introduction to Section 2

Issues concerning national and international themes such as sustainable development, science education, technology education and digital technologies are given prominence in the work of members of the Faculty of Education. Several Faculty members have been involved over the years, in the formulation of policy documents, in the design and development of specific programmes that have had an impact not only on school life but also society in general.

The first paper in this section by Paul Pace takes us through the journey that involved him together with other colleagues of the Faculty as the areas of Environmental Education (EE) and then Education for Sustainable Development (ESD) came into being. The Faculty's commitment to EE commenced in 1991 and then, in 2004, the University officially established the Centre for Environmental Education & Research (CEER).

CEER seeks to catalyse change towards a sustainable society by providing opportunities for ESD that empower citizens, irrespective of age, gender and socio-economic status, to actively participate in decision making for and in initiatives that promote a good quality of life. CEER's actions initially focused on providing ESD training courses and supervising research at undergraduate level. The main themes and the specific research agenda of CEER revolved around the development of curriculum material and the investigation into methodologies on how to carry out effective educational programmes in the formal education sector. CEER also extended its field of activity to include work within the community, co-operation with governmental and non-governmental organisations, and networking with local and regional groups/individuals to initiate joint projects. Owing to the spread of its field of activity, CEER has become the main ESD agency in the country. Yet, a number of challenges still need to be addressed namely those presented by the United Nations through the 17 sustainable development goals that it published in 2015.

The second paper by Suzanne Gatt presents developments in primary Science at the Faculty of Education as well as in primary schools through an analysis of existing documents as well as a number of interviews with past and present key stakeholders, as well as past students. It traces the achievements in the last 40 years and the impact that past graduates have had on primary Science.

Another paper, this time by Sarah Pulè and Carmel Navarro, takes us back to 1981 when Technology Education was offered for the first time in our B.Ed programme. Since then courses have adopted different philosophies and changed considerably both in content and structure to reflect developments in the domain itself and to adapt to political exigencies. This paper presents and reflects on variables that have been influential to the developmental progress of Initial Technology Teacher Education programmes organised by the Faculty of Education.

Having lived through Technology Education themselves, as students, teachers and teacher educators for more than twenty years, these reflections manifest what the authors perceived through the years and what messages they convey as advice to Faculty regarding Technology Education. Reflection on the Maltese scenario reveals that the latter mirrors many of the variables and issues experienced by the international scenario in this area. Their paper also presents the current challenges which the initial teacher training programmes at University are now facing in the light of past endeavours.

The final paper in this section shows an appreciation, as well as critique of the fast changing learning environment we are living in. The paper by Patrick Camilleri presents us – teacher educators and teachers alike – with the need to align technological advances with the way we promote learning in our institutions. Over the years we have seen how slow schools have been to take on developments taking place in the technological arena. He ends his paper with a cautionary note that must be seriously addressed: ‘Ultimately if the skills and popular culture exhibited by the students today, are not recognised, understood and meaningfully contextualised in updated educational models within worldwide contexts, then the required quantum leap towards a successful implementation of the Social Capital of the digital natives in educational contexts will be difficult to achieve.’ The Faculty, together with the education authorities, have to work hand-in-hand to address this.

As with other papers in this volume, the contributions in this section attest the presence of members of the Faculty as socially engaged researchers who play a direct role both within courses offered by the Faculty and in the public sphere.

Section II

EDUCATIONAL DEVELOPMENTS AND THE ROLE OF THE FACULTY OF EDUCATION

Education for Sustainable Development: a conceptual and methodological evolution.

Paul Pace

Abstract

The Faculty of Education's commitment towards Environmental Education (EE) coincided with a crucial stage of global EE development. In 1991 the Faculty was commissioned by UNESCO to embark on a research project to explore ways of infusing EE in the primary school curriculum. The project focused on clarifying the concept of EE and its impact on the curriculum, providing EE resources and facilitating its adoption in schools. It was apparent from the start that EE implementation had to contend with a clash of paradigms as the predominant notion of EE in the educational community was very narrow and restricted to nature study. Moreover, a centre-periphery approach to curriculum development, rigid syllabi and examination oriented pedagogies presented hurdles in the infusion of EE in the curriculum. Aware of these challenges and having identified a lacuna in EE provision in initial teacher education (ITE), the Faculty's initial action was characterised by a period of resource development and dissemination of the concept through ITE. As the notion of EE evolved globally into Education for Sustainable Development (ESD), the University of Malta officially established, in 2004, the Centre for Environmental Education & Research (CEER) within the Faculty of Education. CEER seeks to catalyse change towards a sustainable society by providing opportunities for ESD that empower citizens, irrespective of age, gender and socio-economic status, to actively participate in decision making for a and in initiatives that promote a good quality of life. CEER's actions initially focused on providing ESD training courses and supervising research at undergraduate level. The main themes and the specific research agenda of CEER revolved around the development of curriculum material and the investigation into effective methodologies on how to carry out effective educational programmes in the formal education sector. CEER also extended its field of activity to include work within the community, co-operation with governmental and non-governmental organisations, and networking with local and regional groups/individuals to initiate joint projects. Owing to the spread of its field of activity, CEER has become the main ESD agency in the country. An internal evaluation of CEER's revealed a low uptake of ESD principles in schools. This led to a rethinking of the centre's strategy in training methodology that included partnering with an environmental NGO and adopting a flexible non-formal methodology by-passing bureaucratic hurdles to implement the Eco-Schools programme. The paper will also explain in detail this 'new' methodology that is characterised by an expansion of the notion of the environment to include sustainable development (SD) themes; assisting teachers in the infusion of ESD themes in the curriculum; inducing schools to introduce SD principles in their development plans; and using schools as catalysts for community-based ESD initiatives. The impact of CEER's 'new' strategy was instrumental in the introduction of ESD in the National Curriculum Framework.

Keywords: Environmental Education; Education for Sustainable Development; Policy Making; Behavioural change; Social transformation

Preamble

Contrary to popular belief, in evolution, it is not the strongest species that manages to survive, but the one that is most responsive to change. The survival of a particular species is all dependent on its ability to adapt to (and thrive despite) the ever-changing conditions of its surroundings and the pressures from other dominant species which compete for the same resources. This basic mechanism of evolution has moulded our species and is still predominant in the unnatural environments we developed and function in. Academic circles are certainly not an exception.

Education for Sustainable Development (ESD) made its formal debut in the international educational arena at the Tbilisi Intergovernmental Conference on Environmental Education in 1977 (UNESCO-UNEP, 1978). At the time referred to as Environmental Education (EE), it was heralded as “a comprehensive lifelong education, one responsive to changes in a rapidly changing world” (p.24) imparting not just knowledge, but the skills, attitudes, and values needed to empower learners for action.

To achieve these goals, EE had to be a lifelong and life-wide process that transcends the traditional boundaries of formal education moving into the territories of the non-formal and informal sectors. EE had to be interdisciplinary, “look outward to the community” while focusing on actively engaging the learner in the educational process (p.24). EE also proposed a more holistic vision of the environment which blurred the distinction between what is natural, what is social and what is economic and focused on the multidimensional nature of the issues that threaten the quality of life in our communities, countries, regions, and planet. It is no wonder that the general feeling of the conference was that “By its very nature, environmental education can make a powerful contribution to the renovation of the educational process” (p.24).

As the euphoria generated by the Tbilisi conference started to subside, the stark reality of implementation, i.e. the task of redirecting the educational community towards EE hit home. It was quite predictable from the start that EE implementation would result in a clash of paradigms as the predominant culture in educational institutions was incompatible with the innovative rationale of EE (Pace, 2010a). EE had to contend with three major hurdles:

- (i) an issue of definition – the adjective “environmental” in EE was interpreted to mean that anything related to the environment could be construed as EE. This meant that rather than rethinking their teaching and learning approaches, several educational institutions just whitewashed over traditional practices, like Nature Study and Environmental Science, and relabelled them as EE;
- (ii) a limited view of education – many equate education to the passing on of information. Consequently, many so-called EE programmes assign top priority to knowledge leaving the development of skills, attitudes, and values to chance; and
- (iii) a limited arsenal of methodologies – the transformative pedagogy advocated by EE implies adapting to different learners, different learning needs, different learning contexts and consequently different teaching and learning methods. This starkly contrasts with the one-size-fits-all approach largely still predominant in various traditional educational institutions tasked with preparing autonomous learners to deal with change.

With some notable exceptions, universities are not immune to this resistance to EE (Moore, 2005a). Due to its interdisciplinary nature, EE cannot fit into any of the neatly defined subject categories of university faculties and consequently, it is not valued as the other traditional prestigious disciplines. Doubts about the academic abilities of staff specialising in EE abound and

their work is quite often deprecated and belittled. Moreover, one major inherent barrier is the way academic research is conceived (Pace, 2016). Research in EE is characterised by community-based efforts aimed at generating social transformation, while traditional academic research is more interested in fattening publication lists of academic staff. Over the years, this thwarted understanding of research has also permeated EE research that consequently tended to dwell on themes of little (if any) social relevance such as finding the correct term that properly fits the targets of EE. After decades of proposals and counterproposals to what is the appropriate term, it seems that (for now) the accepted term is Education for Sustainable Development (ESD) (Pace, 2010a).

Humble and difficult beginnings

In evolution, a new lifeform will have to contend with various factors before it can establish itself within a niche in the ecosystem and pass on its characteristics to the next generations. Similarly, EE with its particular characteristics had (and still has) to compete with other emerging adjectival educational experiences for coveted curriculum space already occupied by traditional disciplines and 'guarded' by long-established practices and power structures.

Mainly because of a lot of pussyfooting around political correctness, a recurrent problem of EE implementation has always been that of translating the rhetoric of conferences and declarations into concrete transformative actions. In an effort to jump-start EE implementation in schools the UNESCO-UNEP International Congress on Environmental Education and Training proposed a strategy to develop prototype curricula and teaching materials promoting environmental education in various countries (UNEP, 1987). The Faculty of Education's commitment towards EE (ESD) coincided with this crucial stage of global EE development (Pace, 1997).

In 1991, the Faculty of Education (FoE) was commissioned by UNESCO to embark on a research project to explore ways of infusing EE in the primary school curriculum. The project, Environmental Education Programme (EEP), focused on clarifying the concept of EE, devise a way how it could be infused in the curriculum, provide teaching and learning resources and facilitate its adoption in schools (Ventura, et al., 1991). Tailored on the Tbilisi recommendations the EEP was structured on educational concepts that at the time were relatively novel to the Maltese educational system: an interdisciplinary approach, a learner-centred pedagogy and an emphasis on the process rather than the product. Actually, these 'innovative' approaches were already proposed in the 1969 primary school syllabus that provided guidelines for an interdisciplinary approach that used 'centres of interest' to integrate various curriculum subjects through a child-centred problem-solving methodology (Department of Education, 1969). This approach never really took off due to the prevailing monodisciplinary structure dictated by the rigid exam-oriented pedagogy that was quite predominant at the time.

However, the concept of teacher-mediated curriculum development was, arguably, the greatest change that the EEP introduced. This was in direct conflict with the centre-periphery approach to curriculum development predominant at that time and consequently, the education authorities saw the EEP as an infringement of their territory and effectively obstructed its implementation in schools. As a counteraction to ascertain their jurisdiction over curriculum matters, the Science Centre of the Education Division launched its own version of teacher's manual for the implementation of EE in the curriculum (White, 1993). This situation was symptomatic of the Fragmentary Phase of the evolution of EE in Malta, characterised by various actors assuming responsibility for EE, but failing to coordinate their initiatives and generating a lot of conflicts (Pace, 1997; Tanti, 2000; Mifsud, 2012).

At first glance, the blocking of the EEP's teacher's manual might be construed as a failure to disseminate change. However, in his classic work that was very influential in democratizing teaching and learning, Stenhouse maintains that in issues of curriculum development "... research and development projects in curriculum and teaching should not see themselves as engineering change. In so far as it is their job to promote change, they should be concerned to make intelligent, but provisional, lines of development accessible to those whose responsibility is to make decisions about educational practice" (1975, p.215).

Aware of these challenges and believing in the crucial role teachers have as change agents, the FoE sought to address the lacuna in EE provision in initial and continuous teacher education (Pace, 2009). Through the EE Unit, within the Department of Mathematics, Science and Technical Education, a three-pronged strategy was adopted consisting of:

- (i) providing pre and in-service courses promoting the principles and methodology promoted by the EEP;
- (ii) developing teaching and learning EE resources that, besides addressing the local context, provided concrete examples of how EE could be infused in various curriculum subjects (for example in Maltese: Aloisio, 1993; in Italian: Ebejer, 1995; in religion: Tonna and Tonna, 1995; in primary schools: Agius, Chetcuti and Galea, 1996; in music: Ferrante, 1997); and
- (iii) proposing effective methodologies for the promotion of EE (for example simulation and gaming: Grech, 1996; multimedia: Tanti and Zammit, 2001; walks: Borg, 2001; the internet: Grech, 2005).

The Cambrian Period

In the story of life on our planet, the Cambrian period denotes an epoch famed for its explosion of abundant life forms. Several theories have been put forward trying to find a plausible explanation for this unparalleled bloom in biodiversity, yet the underlying reason seems to be an amelioration of living conditions that favoured and supported new ways of living.

One of the predominant beliefs, reminiscent of the Industrial Revolution, is that the indiscriminate exploitation of natural resources is justifiable if the economic gains are high. Efforts to decouple economic growth from environmental degradation can be traced back to 1969 to the initiatives of the International Union for Conservation of Nature (IUCN) which proved to be, in the subsequent years, one of the main actors promoting the concept of sustainable development (Adams, 2006) which was ultimately defined and explained by the Brundtland Report (WCED, 1988, Ch.2, para.1). However, it was only through the Rio Earth Summit (i.e. the United Nations Conference on Environment and Development) in 1992 that sustainable development became a household name – particularly in the political arena. For all intents and purposes, Rio's Agenda 21's recommendation to reorient education towards sustainable development (United Nations, 1992, Chapter 36) was a call to revisit the Tbilisi recommendations and assert once again that the main target of EE is to transform society towards sustainability.

This global journey of awareness about sustainable development and subsequent evolution of EE into ESD resulted into a myriad of initiatives at various fronts: from early childhood to higher/vocational education institutions; the business and industrial sectors; local municipalities and community-based interest groups; governmental, Non-Governmental Organisations (NGOs) and Civil Society Organisations (CSOs). Nevertheless, as argued by Leal Filho, Manolas and Pace (2015), the energy, the funding and the resources invested in promoting sustainable development (and ESD) on a global dimension did not deliver the promised results for various reasons.

The 2002 World Summit on Sustainable Development (WSSD) held in Johannesburg sought to jump-start the world's efforts towards achieving significant progress on sustainable development devoid of traditional rhetoric and based on action in "... a determined effort to respond positively to the need to produce a practical and visible plan to bring about poverty eradication and human development" (United Nations, 2002a, para.7). This specific emphasis on "poverty eradication and human development" instead of the usual "sustainable development" seems to be a deliberate attempt to break away from the predominant economic rhetoric that has plagued sustainable development discourse and to shift and focus attention on the other neglected foci of sustainable development (Leal Filho, Manolas & Pace, 2015). This resolve "... to accord the highest priority to poverty eradication within the United Nations development agenda, addressing the root causes and challenges of poverty through integrated, coordinated and coherent strategies at all levels" was further consolidated at the Rio +20 United Nations Conference on Sustainable Development (United Nations, 2012b, para. 106).

As in all the preceding United Nations conferences on sustainable development, ESD was again reaffirmed as the crucial element needed to bring about this change in lifestyle. One of the major milestones of the Johannesburg Summit was the recommendation for the adoption of a Decade of Education for Sustainable Development (United Nations, 2002b, para. 124). Consequently the United Nations General Assembly, at its 57th session in December 2002, adopted a resolution to start the UN Decade of Education for Sustainable Development (DESD) (2005–2014) aimed at "... providing recommendations for Governments on how to promote and improve the integration of education for sustainable development in their respective educational strategies and action plans at the appropriate level" (United Nations, 2002c, para.2). The DESD launched and supported efforts to improve ESD provision and to tangibly direct educational outcomes towards action for sustainability and behavioural change (UNESCO, 2014a).

There is now a growing international consensus that ESD is not a synonym for nature study and that concerns about sustainable development go far beyond traditional environmental concerns. Being a key enabler of behavioural changes and decision making aimed at improving the human condition, ESD is increasingly being seen as an integral element of quality education and hence part of the entitlement of every citizen (UNESCO, 2014b, Target 5, p.3).

In its roadmap to implement the Global Action Programme (GAP) on ESD, published as a follow up of the DESD, UNESCO proposed the following 5 priority action areas as guidelines for the way forward in ESD implementation:

1. Incorporate ESD into both education and sustainable development policies;
2. Integrate sustainability principles into learning and training environments;
3. Provide adequate training in ESD for educators and trainers;
4. Provide more ESD actions that empower youth; and
5. Develop ESD programmes and multi-stakeholder ESD networks at the community level (UNESCO, 2014c, p.15).

These various developments in the global evolution of ESD were also, to some extent, reflected locally. The University of Malta officially established the Centre for Environmental Education & Research (CEER) within the FoE, in 2004. According to its Mission Statement, "CEER seeks to catalyse change towards a sustainable society by providing opportunities for ESD that empower citizens, irrespective of age, gender and socio-economic status, to actively participate in decision making fora and in initiatives that promote a good quality of life" (Università ta' Malta, 2011).

Since its inception, CEER's sphere of action was far-reaching. Besides offering study units and research opportunities for under/postgraduate students from the FoE and other faculties, CEER also extended its remit to initiate and facilitate community-based sustainable development, such as:

- (a) consolidating the educational component, facilitating resource transfer and capacity building of NGOs and CSOs;
- (b) offering training programmes for personnel in governmental, business and industrial organisations about sustainability practices (for example waste management; energy and water conservation; climate change; consumption patterns) with an emphasis on behavioural change rather than a just technological upgrade;
- (c) networking with local, regional and international organisations to initiate joint sustainable development and ESD projects; and
- (d) organising fora that seek to explore and enhance opportunities for ESD provision and implementation. For example: (i) the inclusion of ESD in major national policy documents, the most noteworthy being the inclusion of ESD as a cross-curriculum theme in the National Curriculum Framework (NCF) (Ministry of Education, Employment and the Family, 2011); (ii) the coordination of the National Strategy for Education for Sustainable Development (NSESD); and (iii) the offering of a Master programme in ESD.

Owing to the coverage of its field of activity that is in line with the general ESD principles and recommendations of the UN, CEER has become the main ESD agency in the country.

Conquering dry land

In evolution, the conquest of land, besides promising a lot of benefits, posed several challenges that needed to be addressed by the life forms willing to colonise this new frontier. Some life forms never managed to leave the safe confines of the sea. Others made some daring steps into the land, but did not sever their dependency on a watery environment. Others faced the challenges, adapted to the new conditions and thrived.

Similarly in the development of ESD. Not every initiative, organisation and institution claiming to be doing ESD is actually doing it. The challenges ESD poses to educational systems – whether formal, non-formal and informal – have been identified since Tbilisi (in 1977), and yet while some have embraced and adapted to them, others have just made symbolic adaptations, while others have remained entrenched in their traditional practices (Pace, 1997). These challenges can be summarised thus:

(a) Defining ESD

Over four decades have gone by since ESD made its debut in the educational arena, and yet there are still issues about what it entails. Convincing certain policymakers and curriculum developers that ESD goes far beyond just providing environmental information is not an easy task. Developing skills, attitudes and values that promote behavioural change conducive to sustainable lifestyles require the adoption of specific methodologies. In other words, while everyone needs to be engaged in ESD, not everyone is qualified to provide it – irrespective of the claims by conceited individuals that knowing your subject matter automatically qualifies you to teach it effectively.

This narrow vision of ESD has siphoned off funding (that could have been put to better use) into communication campaigns intended to bring about behavioural change, but that have failed

miserably mainly because the persons involved were (to put it bluntly) incompetent in ESD or as Caruana calls them pedagofoms (2016).

(b) Sporadic activities vs. sustained action

Local communication campaigns targeting sustainable behaviour have characteristically been sporadic, adopting a top-down one-way communication with little (if any) interaction with the intended target audience. These sporadic initiatives have proved to be largely ineffective, a duplication of efforts and a drain of limited resources.

With the launch of the Dinja Waħda (One World) award scheme for primary schools in 1994, BirdLife Malta was the first NGO which recognised the importance of forfeiting isolated activities and investing in “an educational campaign that would last throughout the entire scholastic year” thus ensuring a more focused and coordinated approach (Grima, 1996). Regular evaluation of the initiative attests to the success of this strategy. To date, the number of participating primary schools has been on the increase and a version of Dinja Waħda for secondary schools was launched in 2016.

(c) A top-down or a bottom-up approach?

CEER’s initial strategy to introduce ESD in schools consisted of offering study units in ESD as part of initial teacher training programmes and supervising ESD related research projects. The plan was to empower future teachers by equipping them with the relevant methodologies and curriculum planning skills leading them to implement ESD in their respective classes. However, the uptake of ESD in schools was lower than expected.

Upon reflection, although CEER’s output advocated participatory pedagogies and the development of higher-order thinking skills, the administrative and procedural confines of a formal educational institution, was effectively reducing this output to another form of banking education (Freire, 1970). Teachers were being left on their own to resolve the day-to-day issues that the multifaceted realities of the classroom posed. The course plan and approaches used were predominantly designed top-down, albeit based on research and the latest developments in the field, but still remote from the school subcultures.

It was decided to take Moore’s premise (2005b, p.337) that educational institutions, need to create space for pedagogical transformation a step further, i.e. creating the space directly in the field of action (the grassroots) rather than within university. CEER staff made the conscious decision to assist in the transformation of the community by getting their hands dirty and actively engaging (and in the process empowering) the community in bringing about change rather than by pontificating from the safety of the lecture room. The design methodology was essentially bottom-up, structured around specific needs (not conventional ‘textbook’ needs), but also with a dose of top-down management facilitating the process and valorising the inputs (Pace, 1996). More specifically, this entailed meeting teachers in schools, understanding the teaching and learning needs of their school and collaboratively finding feasible ways how ESD could be incorporated in their programmes and school policy.

Achieving this synergy of approaches necessitated partnering with an environmental NGO (Nature Trust – FEE Malta) and adopting a flexible non-formal methodology by-passing bureaucratic hurdles to implement the Eco-Schools programme in schools. The Eco-Schools programme (locally

referred to as EkoSkola) is the largest international ESD network in the world (UNESCO, 2014a) run by the Foundation for Environmental Education (FEE). The programme focuses on student-led action aimed at promoting sustainable lifestyles and choices in the school's day-to-day functioning and the surrounding community (Eco-Schools website, n.d.). EkoSkola's methodology provided the ideal tool allowing CEER to access and work with schools on a common goal (Pace, 2012).

CEER's 'new' methodology involved: (i) widening the notion of the environment to include sustainable development themes thus creating more opportunities for the infusion of ESD themes in the curriculum; (ii) promoting participatory pedagogies that empower learners to take action to improve the school's quality of life; (iii) inducing schools to introduce sustainable development practices in their School Development Plans (SDPs); (iv) developing schools into catalysts for social transformation through community-based ESD initiatives; (v) providing professional development training of school teachers and the EkoSkola teachers (tasked with supporting schools in the implementation of EkoSkola); and (vi) conducting research on the effect of CEER's activity in schools and the impact of EkoSkola on the educational community (Pace, 2012).

In a few years, EkoSkola became the main ESD programme in Malta, catering (in 2017) for 85% of the total student population, from kindergarten to post-secondary in state and non-state schools. Research (for example Gauci & Farrell, 2009; Grech, 2010; Zammit, 2011) has shown that EkoSkola encouraged personal, institutional and communal sustainable behaviour as well as active participation in local and national decision-making fora about sustainable development. Throughout its presence in Maltese schools, EkoSkola has become a brand name for quality education providing the context for the implementation of curriculum development principles like interdisciplinarity, active learner participation, critical thinking and community interaction. Moreover, the inclusion of ESD as a cross-curricular theme in the National Curriculum Framework was heavily influenced by the positive impact of the EkoSkola experience in schools (Pace, 2012).

The future

In September 2015, the world community identified 17 Sustainable Development Goals (SDGs) aimed at significantly improving human quality of life and protecting the planet from degradation, and pledged to implement them by 2030 (United Nations, n.d.). This is quite a tall order and once again education has been identified as one of the crucial tools to achieve these targets:

"The post-2015 education agenda must be flexible enough to allow for diversity in governance structures. It must continue to promote sustainable development and active and effective global and local citizenship, contribute to strengthening democracy and peace, and foster respect for cultural and linguistic diversity" (UNESCO, 2014b, para. 8).

ESD provision in Malta has made significant steps forward, however, they need to be sustained and consolidated otherwise we would be running the risk of missing out on honouring our commitment towards the SDGs. The following are four pending issues whose resolution (or not) will influence the future of ESD development in Malta:

- The first phase in the development of a National Strategy for Education for Sustainable Development (NSESD), i.e. the identification of the rationale and guiding principles of the strategy through public consultation, has been completed. The next phase, awaiting Cabinet

approval, will see the drawing up of the Action Plan that will identify specific targets and actions to be taken, set deadlines and list agencies/organisations responsible for the implementation.

- The inclusion of ESD as a cross-curricular theme in the NCF in 2012 was a great milestone in the evolution of ESD in Malta. The long overdue next step is the development of specific national curriculum guidelines that will regulate ESD integration within the various subject areas.
- With the launch of the Master in Teaching and Learning (MTL) (the FoE's initial teacher education programme) the exposure of student teachers to ESD has been greatly reduced from what used to be on offer in the B.Ed. (Hons) programme. This contrasts greatly with the recommendations of Priority Action Area No. 3 (i.e. Building capacities of educators and trainers) of the Global Action Programme (GAP) on ESD and hence needs to be rectified.
- In line with GAP's Priority Action Area No. 5 (i.e. Accelerating sustainable solutions at the local level), most of CEER's field of action is focused on promoting social transformation in various community settings. Nevertheless, the university does not value these actions in both its traditional evaluation procedures and in what counts as academic effort. This situation also begs attention if CEER is expected to maintain its status as Malta's national reference point for ESD.

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Section II

EDUCATIONAL DEVELOPMENTS AND THE ROLE OF THE FACULTY OF EDUCATION

Supporting Primary Science through initial teacher training: A historical perspective.

Suzanne Gatt

Abstract

Primary Science has a long history in Malta's national curriculum. Initially involving Nature study in most primary classrooms over fifty years ago, primary science received official recognition as an integral part of the primary curriculum in the first National Curriculum of 1989. The role of science in primary was further consolidated in the 1999 National Minimum Curriculum and the 2012 National Curriculum Framework. Science during this period was also incorporated in the initial teacher training of primary teachers at the Faculty of Education. The amount of science education for primary teachers evolved in quality and quantity as the Faculty grew and consolidated its Initial teacher training programmes. Over the years, there was an increase in the number of dissertations about science at primary level, shedding light on the teaching of science in the local education system. The Faculty for a number of years also offered science specialisation to primary teachers. There have also been a number of Masters students focusing their research on primary science. The result of these developments led to capacity building in primary science and a number of these graduates are today key stakeholders in the education system. This paper presents developments in primary science at the Faculty of Education as well as in primary schools through an analysis of existing documents as well as a number of interviews with past and present key stakeholders as well as past students. It traces the achievements in the last 40 years and the impact that past graduates have had on primary science. Challenges which primary science still faces in establishing itself as a core subject area as in training new teachers and offering CPD to enable educators provide a quality science education experience are identified and potential future actions outlined.

Keywords: Primary, Science, History, teacher-training

Introduction

Citizens find themselves constantly presented in their everyday life with matters and political issues related to Science (Marincola, 2006). This is the result of the ever increasing contribution of scientific research to innovation which is transforming the world (Government Office for Science, 2017) technologically, socially and politically. Many are those national and international issues which today form part of public policy debates that are informed by Science (Parkhurst, 2017). Some examples include cases involving environmental issues like: pollution and its effect on human health; urban development and conservation of nature; water provision, quality and its use; and the impact of other everyday services and infrastructure. Such political issues often aim to improve our quality of life, but many of these decisions also bring implications which are

not always beneficial to the wellbeing of society today or to sustainable development in view of future generations.

Active citizens need to be engaged in political decisions involving scientific issues (European Commission, 2015) as these decisions impact people's lives (Ahrari, 2014), neighbourhoods, localities, and the world at large. If we need to ensure informed citizens who can and want to participate actively in decisions taken with respect to large projects, there is need to engage children from an early age in all aspects of Science: content, process and nature of Science (Akerson *et al.*, 2011). Science education for scientific literacy is needed to help children learn how to develop an informed opinion. Science education also has to support children in the development of those competences they need when they grow up to voice their opinion and act upon it with key players in charge of governing (Vujcic *et al.*, 2016).

Teachers play an important role in promoting scientific literacy. To introduce children to Science from a young age effectively, primary teachers need to be equipped with the necessary background knowledge, skills and values in Science, as well as possess an understanding of the role of Science in society. Teachers also need to be able to design and deliver age appropriate Science activities which promote children's curiosity (Grainger & Barnes, 2006) and inquisitiveness as they learn to question, investigate and use evidence in seeking answers about how the world works (National Research Council, 2001). This is a major challenge which cannot be delayed until children are in secondary school. Science in primary thus gains importance as it is the stage at which children's natural interest in the world around them can be nurtured. It is also the appropriate age to do Science for the development of scientific and inquiry skills.

It is not enough to give Science a central role in the primary curriculum without ensuring capacity in terms of trained teachers who are able to create meaningful Science experiences that promote both learning in Science as well as a love for it (Welcome Trust, 2014). The Faculty of Education within the University of Malta has been engaged in the training of teachers since it was set up and started running initial teacher training at tertiary education level in 1979. The Faculty's first initial teacher training courses have catered for the training of primary teachers in the teaching of Science as well as encouraged those enthusiastic about Science to pursue their interest further. This chapter provides a personal historical account by the person in charge of initial teacher training for Primary Science at the Faculty of Education as well a review of documented knowledge and insights generated about primary children learning Science. This account aims to identify and trace the different initiatives in Primary Science that have been offered to student teachers at the Faculty of Education over the past forty years. It also describes those opportunities which were offered to teachers wanting to invest in further training with respect to Primary Science education as part of professional development. It also traces how graduate primary teachers who had invested in Science education during their initial training as well as for professional development have had an impact in the primary education sector, either when teachers utilised their pedagogical skills in teaching Science to children in their class, as well as when they progressed in their career and took up responsibilities related to Primary Science.

A historical perspective of Primary Science

In order to trace the impact of studies in Primary Science at the Faculty of Education on the teaching of Science, there is first need to identify what developments have taken place in the primary curriculum over the years. Primary Science, in fact, has a long history in Malta's primary curriculum and can be traced back to the nineteenth century. Actually, Primary Science already existed in the 19th century as part of the curriculum. This included mainly daily time dedicated

to cultivating school gardens in order to employ and improve knowledge of plant life (Ventura, 1993). The curriculum was later extended to also include Nature Study or Natural History. In mid-19th century botany was introduced, which was then further extended to include the study of insects, reflecting the view that botany, entomology and mineralogy were to be included as part of Natural History. While there were minimal significant changes in Primary Science implemented over the century (Fenech, 1991), there were, on the other hand, different books and/or Science textbooks developed from traditional themes such as the life cycle of the frog etc. (Ventura, 1993; Gatt, 2000).

One major effort to develop Science at primary was attempted during the 1969 reform which involved mainly the implementation of comprehensive schooling, but also changes in the curriculum. However, the reform which included promoting Primary Science failed to gain popularity among teachers, who continued to focus on flora and fauna despite the efforts made to support Science through school broadcast (Coke, 1969). In 1982 the Primary Science syllabus was amalgamated with Social Studies which integrated Geography, Historical, Civics and Science with the aim of promoting social awareness (Department of Education, undated). However, there was in 1985, an attempt to separate again Science from Social Studies. This move generated objections from teachers mainly related to the additional curriculum load and assessment responsibilities that it brought with it (Balzan, 1990).

A major breakthrough for Primary Science, at least at policy level, was achieved with the recognition of the role of Science as a core subject area in the primary curriculum in the first National Minimum Curriculum (Government of Malta, 1989), which was developed following the establishment of the 1988 Education Act (Gatt, 2000). The then National Minimum Curriculum identified Science as one of the five main aims of primary education, with elements of Physics, Chemistry and Biology considered to be topics relating to fundamental knowledge on the human body, geographical and environmental understanding, and notions about technology. This acknowledgement gave an impetus to curriculum development in Science and environmental education (Ventura, 1993). A Science Centre to support primary teachers in the teaching of Science was set up in 1990 and local Primary Science worksheets for use in primary schools were produced (Balzan, 1990). These Science worksheets were later released in the form of two booklets and distributed in all primary state schools (Department of Education, 1990, 1991). All these efforts promoted the teaching of Science at primary level. However, while the Science worksheets helped teachers build students' knowledge and develop their experimental skills, in practice, Primary Science still maintained its secondary role in the curriculum (Gatt, 2000). This golden opportunity to establish the role of Science in the primary curriculum was unfortunately, again missed.

In 1999, the publication of the second edition of the National Minimum Curriculum (NMC) (Ministry of Education, 1999), gave Primary Science greater recognition, identifying it as core subject status in primary. One of the objectives of the 1999 National Minimum Curriculum was that of fostering greater awareness of the role of Science and Technology in everyday life. Learning outcomes in terms of knowledge, skills and attitudes were developed. However, there was still no form of formative or summative assessment in Science at primary. While summative assessment in Primary Science was never considered, the use of formative assessment in the form of a portfolio of experiments was proposed but turned down¹. The absence of any structured Science

¹ The author at the time was member of the committee focusing on the implementation of the NMC with respect to Primary Science, and was member of the team proposing formative assessment in Science in 1999.

assessment resulted in teachers giving Science much less importance. Consequently, less hours of teaching Science were implemented in comparison to subjects which were assessed through a written examination. TIMSS 2011 actually showed how this trend persisted over the years. While 183 hours were allocated to mathematics, heads of schools only reported a total of 39 hours for Science. This was significantly lower compared to the international average of 85 hours (Ministry for Education and Employment, 2013). PISA 2015 again highlighted how much less time was being dedicated to Science despite how much children actually enjoyed doing Science (Ministry for Education and Employment, 2015).

The National Curriculum Framework (Ministry of Education and Employment, 2012) published in 2012 and which superseded the 1999 National Minimum Curriculum, gave further importance to Science, at least at policy level. Learning outcomes were drawn up. A policy on the Vision for Science Education in Malta (Ministry for Education, 2011) extended the value of Science education to the early years. More importantly, this policy included a commitment to inquiry-based learning as the main pedagogical approach when teaching Science. This was a big achievement for Primary Science compared to the earlier attempts (Saliba, 2013). The National Curriculum Framework also specified that 15% of school time was to be dedicated to Science. However, there currently is no evidence of how much time is actually currently being dedicated to Science, whether learning Science is to be an area on its own, or whether this percentage allocation is to also include integration of Science with other subject areas within the primary curriculum.

As the Faculty of Education celebrates its 40th anniversary this year, it is also an exciting time for Science at primary in the education system as Science is also again being emphasised in the primary curriculum. With the introduction of the learning outcomes framework which should start being implemented in October 2019 in some years in the primary curriculum, teachers will be obliged to teach Science regularly. Science will also start to be formally assessed. This will ensure regular teaching of Science which has been a challenge to achieve so far. In addition, the peripatetic team in state schools has started to support more and more initiatives in Science in schools and the community. Primary Science once again has the opportunity to really establish itself in the primary curriculum.

Initiatives and Opportunities for Primary Science at the Faculty of Education

As Primary Science evolved within the primary curriculum over the years, so has the provision of the training of primary teachers in initial teacher training courses. Changes in teacher training has in some cases taken place in response to reforms in the education system. At other times, the Faculty of Education has been proactive and implemented reforms in its initial teacher training programmes with the aim of influencing and bringing about change in the education system. As a result, the Faculty of Education has maintained an evolving teacher-training programme over the past 40 years. This has, in turn, impinged on the amount and type of training provided in initial teacher training with respect to Primary Science.

Considering the last 40 years, there were considerable opportunities for providing pedagogical training in Science to primary student teachers as the Faculty of Education evolved in quality and capacity over the years. As the Faculty of Education consolidated its Initial teacher training programmes, it has implemented a number of initiatives which strengthened Primary Science, both as an area of research and knowledge in its own right, as well as in the type and amount of training in Primary Science provided during initial and post-graduate training programmes. Such initiatives included: establishing an academic post for Primary Science; increased number of study units dedicated to Science education; opportunity to specialise in Primary Science at

undergraduate level; carrying out research as part of dissertation at undergraduate level; inclusion of primary teachers in the MEd in Science Education postgraduate studies; as well as offering Masters by Research and Doctorate studies in Primary Science. The result of these developments have ensured capacity building in Primary Science with a number of these graduates today acting as key players in the current primary education system. These initiatives in Primary Science at the Faculty of Education have had an impact on primary education in different ways.

Teacher education at the Faculty of Education over the past 40 years was as dynamic as the changing challenges faced by the education system. The Bachelor of Education, which for many years was the flagship programme of the Faculty of Education for initial teacher training evolved these past forty years. So did the nature and amount of initial teacher training in Primary Science education provided. The first model of Bachelor of Education was structured in a way where, with the exception of few subject areas, students were trained to become secondary school teachers for a particular subject area while concurrently also being trained in 'Early and Middle years' (called EMY) as a subsidiary area and which enabled graduates to also teach at primary level. This meant that while the majority of teachers were specialists in one subject to teach at secondary level, they were also trained as generalist primary teachers. Training in Primary Science then consisted mainly of one main study unit. This demonstrates how the Faculty of Education acknowledged the importance of Primary Science in the primary curriculum from early days. Initially, this study unit was provided by a member of the Department of Science, Mathematics and Technology Education which focused on teacher training at secondary level. However, following a number of years of such provision, the Department of Primary Education, in response to the growing number of students at the Faculty, and in acknowledging Science as a subject area in the primary curriculum added an academic post in Primary Science and Environmental Education.

The Faculty of Education in 1995 established a full-time academic post within the then Department of Primary Education at the Faculty of Education. This was before Science was recognised as a core subject in the curriculum in the National Minimum Curriculum of 1999 (Ministry of Education, 1999). The post can be considered a statement by the Faculty that doing Science with children at primary level is important and an academic area of knowledge in its own right. Having an academic person specialised in Primary Science also reflected University's investment in Science education. One outcome is the generation of academic knowledge about Science in Primary.

Over the years, it was acknowledged that the training in primary provided to student teachers within the original Bachelor of Education programme was not enough. The majority of the students following the Bachelor of Education tended to give more attention to their main subject specialisation as secondary level teachers at the expense of study units in their subsidiary Early Years and Primary education². This was a major concern to the Faculty of Education as the majority of its graduates eventually ended up teaching in primary schools. This eventually led to a decision by the Faculty of Education to have separate Bachelor of Education courses, one for teaching at Secondary level, and one for Primary Education. This reform meant that students were motivated to teach children at primary level. There was also more space for training to be provided in issues and subject pedagogy at primary level. This change benefited Primary Science which experienced increased training time in initial teacher training. While Science still did not

² It was at times frustrating to academic staff at the Department of Primary Education to face students who were not motivated to learn pedagogies related to primary education.

enjoy as much allocation of study units as the traditional core subjects in primary of English, Maltese, and Mathematics, it was placed at par with Social Studies, Creative and Expressive arts, Religion and Physical Education.

There was also, for a few years, within the BEd (Hons) Primary Education, the opportunity to offer specialisation in a particular subject area where students could follow additional study units dedicated to a particular theme from options offered by the Department of Primary Education. This was the case with Science which was offered as a specialisation for three consecutive years. The specialisation offered student teachers who nurtured an interest in Science the opportunity to learn more about issues related to primary children learning Science. Students could learn in-depth about pedagogical aspects such as: children's ideas about scientific phenomena and alternative frameworks; the image of Science and scientists held by children; pedagogical approaches in Primary Science such as constructivism and conceptual change; the language of Science and the use and introduction of technical words in Science; as well as formative and summative assessment in Primary Science. A number of graduating primary teachers were thus able to gain more knowledge and skills related to Primary Science. Students could take on additional study units in Primary Science, investing in the capacity building of some teacher graduates with respect to Science at primary level. This was particularly important as many primary teachers do not feel that confident teaching Science. Not only did the specialisation enable students enthusiastic about Science to pursue the subject further, but to also develop their skills in teaching Science. Schools could also benefit as more teachers could implement the Science curriculum better as well as support colleagues in the teaching of Science. However, this specialisation was discontinued as the European Credit Transfer and Accumulation System (known as ECTS) were implemented at the University and courses were aligned with the Bologna Process. As the number of the credits in the Bachelor of programme needed to be reduced, specialisation in subject areas was forfeited and a smaller specialisation between either Early Years or Junior years was offered instead. Study units in Primary Science were again reduced and, with the exception of those opting to specialise in the Junior years, where one additional study unit in Primary Science was offered by student teachers. At a later stage, the Bachelor of Education (primary) was further specialised in two separate Bachelors: one for Early Years covering teaching children of ages 3-7 years; and one for Junior years covering ages 8-11 years. Study units in Science education were back to the same level as Social Studies, Religion, and Physical Education.

Study units were not the only means through which student teachers could pursue further their interest in Science. Students could also focus on Science in their dissertation. This, in fact, led to a regular number of dissertations focusing on Primary Science. It served to contribute to knowledge about the teaching and learning of Primary Science in Malta. The dissertation enabled these student teachers to consider in further depth issues related to the teaching of Science as well as contribute knowledge and understanding about Primary Science. There was thus space for some research to be carried out. Dissertations provided some insights and understanding about what is taking place in primary schools, children's ideas about various topics in Science, trialled different forms of pedagogical approaches to Science with children, as well as challenges which teachers experience in doing Science. These dissertations built a wealth of knowledge on the state of Primary Science in schools in Malta. These insights allow policy makers, teacher trainers and other key players in primary to take informed decisions with respect to what Science is to be implemented in primary schools, what pedagogical approaches are effective and promoted, as well as what support to provide to teachers.

Research through dissertations provided interesting insights into various aspects of children's

interactions with Science. One aspect of particular interest was children's ideas about different scientific phenomena. Dissertations identified children's ideas about Processes of Life (Muscat, 2000), Earth and Space (Falzon, 2000), Weather (Farrugia, 2006), the Water Cycle (Grima, 2005), Electricity and Magnetism (Troisi, 1999), Plants (Borg & Lautier, 2006), Human Organs such as the heart and stomach (Saliba, 2006), and Animals (Agius & Pizzuto, 2006). These dissertations highlighted how Maltese primary level children, similar to other children in other countries across the world (Osborne et al., 1991, 1992, 1994; Russel et al. 1994; Russel and Watt, 1990, 1994) held ideas about scientific phenomena which were different from scientific explanations. These children's alternative frameworks (Driver, 1981) provide teachers with insights of children's understandings of how the world works, ideas which they form and hold before any formal learning in Science at school, and their implications to teaching Science.

A number of other dissertations provided insight into the state of Primary Science in schools. One of the early studies was carried out by Balzan (1990). This study evaluated the Science worksheets introduced in schools in late 1980s. It showed how there was need for more than educational resources to encourage teachers to teach Science in the upper years of primary education. Debono and Demicoli (2000) compared the teaching of Science in two primary schools, one in Malta and one abroad. They highlighted how similar challenges were faced in the teaching of Science. Caruana (1996) studied Science in Year 3 and Vella (1996) Year 5. They reported that there was still limited teaching of Science taking place in primary schools. Other dissertations focused on the image of scientists. Dissertations by Spiteri (2006), Abela and Pace (2000), Obidimalor Munro (2006), and Bonnici and Scicluna (2005) focused on the image of scientist held by primary children in Malta. Similar to other international research, Maltese children were found to hold many of the characteristics of the stereotypic image of the scientist (Barman, 1999). The scientist was viewed by many as a man, wearing a laboratory coat and working away in the laboratory. Like more recent research, the scientist was viewed as a young man and not middle aged. Also, similar to international research, very young children were found not to hold a developed image of the scientist, often drawing their teacher instead (Obidimalor Munro, 2006). Changes in children's attitude of Science was also researched, finding how children at primary had strong positive attitudes towards Science, but these decreased significantly as students moved to secondary school (Camilleri, 1999).

Some dissertations developed and evaluated education resources (Atanasio & Barbara, 2015; Buttigieg, 2001; Ellul, 2001; Grech, 2002; Scicluna, 2003; Zerafa, 2003). Resources involved both the production of teaching sequences as well as digital resources. Recent work focused on inquiry-based learning, developing and trialling different methodologies to introduce and implement inquiry in Science through story telling (Buttigieg, 2013; Theuma, 2011), tracing the development of inquiry skills as children progress in school (Cini & Cini, 2015), homework which involves inquiry (Ellul Bonici & Mifsud, 2016), promoting inquiry through messy play (Agius Vadala & Sixsmith, 2014) and teaching young children how to pose questions which can be answered through inquiry (Baldacchino, 2014). Others looked more closely into the implementation of inquiry-based learning. A curriculum based on the inquiry-based approach was developed and implemented with a class at primary (Zerafa & Gatt, 2014). One dissertation considered how primary schools cater for resources needed to implement inquiry-based learning as a whole school approach (Zammit, 2016). These are but a number of examples of issues that were researched and insights obtained about Primary Science in Malta. What is evident is that there now exists a good amount of knowledge which may help understand better how children in Malta can learn Science as well as the types of challenges that teachers and schools face and the support structures required.

In recent years, research in Primary Science education grew as the Faculty offered opportunities for its teacher graduate to follow Master and Doctorate studies in Primary Science. Graduating primary teachers who had either followed a specialisation in Science or else done their dissertation in Primary Science were eligible to follow a Master in Education (MEd) in Science Education. This allowed primary teachers to pursue further studies in their specialisation – Science, as well as interact with secondary Science teachers, understanding their challenges, and the implications of these to learning Science at primary. In addition, graduate primary teachers were also allowed to pursue a Master of Education (by research) in Primary Science. This allowed studies at post-graduate level to be carried out through research related to Science education issues at primary level. Further development involving Doctorate studies has also taken place, with the Faculty of Education accepting students to research issues related to Primary Science education as part of their doctorate research. All these initiatives and developments resulted in capacity building at national level related to Science education with children.

Impact on the Current primary education system

Work done with and through initial teacher-training is an investment for the future in the sector. As Faculty of Education students graduate and start their career in teaching, they take with them the knowledge, skills and competences that they developed through their studies. This is also the case of Primary Science. All the investment made in Primary Science during initial teacher training is thus an investment in capacity building.

This investment is different and may have had different types of impact at different levels, from classroom practice to key policy development and implementation. It is of interest to identify how some of these graduates have and are still contributing to the teaching of Science at primary:

- **Classroom practice:** One most common and direct impact is on what happens in the classroom. While teachers still experience to a degree a lack of confidence and experience in the teaching of Science to young children (Ministry for Education and Employment, 2011; Vassallo, 2010), graduating teachers do have some basic skills and understanding of Science, of what Science inquiry involves, and that science plays an important role in the primary curriculum. With further in-service training in Science and teaching experience, primary teachers can slowly learn to teach Science proficiently to the children's educational benefit. It is acknowledged that teacher confidence is still a challenge, which, in future, may be tackled more effectively in collaboration with the growing actors with expertise promoting Science in the education system.
- **Peripatetic primary teachers:** a number of teacher graduates who had either done their dissertation in Science, or taken Science specialisation during initial teacher training, today form part of the peripatetic Science team. These teachers go round primary schools and deliver Science lessons. They also support primary teachers in teaching Science as well as organise in-service training regularly. Not only did they have the opportunity to continue working with Science for which they nurture a love, but they also have the opportunity to share their love with other teachers and primary children. Their continuous support and provision of in-service training will surely contribute to building the classroom teacher's confidence in teaching Science.
- **Teachers as key reference points in primary schools:** Teachers do not need to be peripatetic teachers in order to be able to promote Science in schools. As teachers take initiatives and implement inquiry Science in their class, not only do they actively engage children and promote

a love for Science, but they also act as inspiration to their colleagues. Peer learning among teachers often takes place as teachers share their successes as well as challenges experienced. It is difficult to capture how much of such impact actually takes place, but there surely are a number of champions for Primary Science out there in primary schools who organise Science fairs, Science activities for parents etc., sustaining children's enthusiasm for Science, but also encouraging other fellow teachers to develop their teaching in science by emulating such good examples of practice.

- **Key Reference Points at policy level:** A number of past Faculty graduates have since moved on in their career in education and today hold key positions such as the Education Officer for Primary Science for State schools and Science coordinators in Church schools. It is very important to have people in key positions to promote the importance of learning Science at primary level. They are the champions who can ensure that Science is given its due importance and who can develop and implement the resources, support needed to give Science at primary the impetus that it really needs. Investment in Primary Science during initial teacher training can, like a chain reaction, spread as more and more players take initiatives in favour of the plight of Science in primary education.

Conclusion

Even if much has been achieved in Primary Science, many other challenges remain. Science may have gained importance over the years. However, there still is much more to be gained to really establish Science as part of the primary syllabus. Teachers do have some background in doing Science, but many still lack the confidence (Ministry of Education and Employment, 2011) needed to teach Science effectively. While there is need to provide more support in terms of resources, and teacher training, Science still needs to conquer that barrier where school senior management staff, teachers, parents and even students consider it as integral to the education of children at primary level.

The road to an established curriculum which is delivered in a way which reflects modern and effective pedagogies is still a target as well as a challenge. However, at a time when there is a renewed impetus given to Science at primary, the existing capacity of educators in primary schools may increase the probability of success.

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Section II

EDUCATIONAL DEVELOPMENTS AND THE ROLE OF THE FACULTY OF EDUCATION

Reflection about Technology Teaching and Learning in Malta: Achievements, Challenges, Lessons Learnt by the Faculty of Education at the University of Malta.

Sarah Pulé and Carmel Navarro

Abstract

Initial teacher education within the domain of technology education was offered for the first time at the University of Malta in 1981. From 1981 to date courses have adopted different philosophies and changed considerably both in content and structure to reflect developments in the domain itself and to adapt to political exigencies. The inception and evolution of initial technology teacher education programmes at the University of Malta did not occur without challenges. This paper presents and reflects on variables that might have been influential to the developmental progress of initial technology teacher education programmes organised by the Faculty of Education at the University of Malta. The variables were identified through an analysis of literature for the international scenario of technology education since, in some other countries, the introduction of technology education in the curriculum preceded that of Malta by a considerable number of years. The reflections are based on the authors' own experiences and observations. Having lived through technology education themselves, as students, teachers and teacher educators for more than twenty years, these reflections manifest what the authors perceived through the years and what messages they tried to convey as advice to faculty regarding technology education. Reflection on the Maltese scenario reveals that the latter mirrors many of the variables and issues experienced by the international scenario in technology education. This paper also presents the current challenges which the initial teacher training programmes at University are now facing in the light of past endeavours.

Keywords: technology education, teaching and learning technology, initial technology teacher education achievements, challenges.

Introduction

The dissemination of research about the nature of technology and technology education has, in the past twenty or so years, expanded considerably and yielded several insights into various issues about technology, its teaching and learning (de Vries, 2016b, 2018). Experiences researched by the international community of technology educators have often served the Maltese community of technology teacher educators at the Faculty of Education, not just as guidance but also as consolation, especially when the challenges faced were of considerable importance to the very existence of a course programme or a particular philosophy. This paper extracts the variables from the international literature considered to be more pertinent to the challenges faced by initial technology teacher education programmes at the University of Malta and reflects on the current status of achievements, challenges and lessons learnt.

Perceptions

Studies about technical artefacts that are produced in a workshop have historically been and unfortunately are still regarded by many as second class and for slower students (Williams, 2012a). When one frames such negative thoughts towards technical studies, commonly referred to as “manual work”, against a historical background, it is not difficult to realise why such attitudes persist well into modern society. Despite the achievement that technological pursuits had for humankind, traditional ancient Greek, Roman and Chinese societies looked down upon manual work (Dusek, 2006). By the time of Plato and Aristotle manual labour was looked upon unfavourably as work fit only for slaves. Such association with slavery degraded the status of any manual work and contemporarily lifted contemplatory thought such as philosophy, astronomy and mathematics. Reflective thought was to be regarded as the highest form of thought possible for humanity. Indeed, even with mathematical study, the preparatory educational programmes for rulers differed from those of soldiers and craftspeople in Plato’s time. While rulers were taught theoretical mathematics related to astronomy and music, as a prelude to acquiring philosophical wisdom, soldiers and craftsmen were only taught simple geometry and arithmetic for tactics, trade or construction (Dusek, 2006). Even in Greek literature we find that Homer has depicted Hephaistos, the god of goldsmiths, blacksmith, masons and carpenters, as a deformed god who was the object of other god’s mirth in spite of the wonderful creations he could conjure up (Williams, 2012a). Negative attitudes towards manual work seem to be rooted deeply into society well into antiquity.

A new respect for technological achievement and its formal study developed as a consequence of the industrial revolution. This occurred to the extent that in some countries it was considered worthy of a place in the core curriculum of schools. This was a positive outcome, however technical curricula have tended to focus on a narrow set of procedural skill development. This narrow focus on procedural knowledge development was seen to deprive technological work from a hermeneutical dimension and thus limit students’ ability to become metacognitively wise (Dakers & de Vries, 2009). This would be the basic difference between technology education and technical training. When technology education fails to recognise the importance of values and attitudes and is presented to be purely neutral and devoid of any ethical, political or hermeneutical qualities, it is reduced to technical training; what in antiquity was, work fit for slaves.

Consequently, when technology educators and policy makers reduce technology education to the purely functional, learners are encouraged to perceive technology only as such and are more likely to develop into adults who hold an uncritical view of the technological world they live in. The implications of overly aligning the epistemological development of a technology curriculum only with a vocational perspective that guides itself solely by industrial developments, for example, would probably have the effect of having future generations who can only perceive what was prescribed to them by the school curriculum (Dakers & de Vries, 2009). The same can be said for the agents who deliver a technology curriculum. If teachers who deliver a technology curriculum originate only from academic or vocational industrial engineers and scientists, the perception given is that technology mirrors only such professions. The possibility of having creative combinations of knowledge from other domains such as the arts or the humanities in technology will be absent.

Philosophy of Technology

Traditional technology education has questioned the value of a philosophy through its approach of separating thinking and doing. Interestingly, although technology has played a significant role in human history, there is scant systematic treatment about the engineering philosophy of

technology in major classical philosophical writings (Williams, 2012a). Classical philosophers have tended to focus upon the humanistic philosophy of technology, where technology's effect on society was explored, rather than the nature of technology itself (de Vries, 2016c). The lack of a unified philosophy has implied a sense of inferiority with respect to other subjects and ample confusion on choice of content and aims of technology as a school subject (Williams, 2012a). The major dichotomous philosophical positions can generally be characterised as the vocational and the general. While in vocational training it is the particular vocation that dictates what content is relevant for study, for a general philosophy of technology education it is more important to target general technological literacy, innovation and creativity through a practical environment. Hence while the vocational and general approaches to technology education can co-exist in schools, these are usually found to be incompatible in terms of pedagogies, content and assessment (Williams, 2009a). Concurrent presentation of such a philosophical dichotomy toward technology education can be confusing to novice teachers, students, parents, school senior management and policy makers. In fact Williams (2009a) suggests that a clearly articulated philosophy is of prime importance since it offers one way to sensitize people toward the challenges of professional responsibility which would result in consistent, logical practice. He states that the philosophy of technology education is an essential starting point for any educational activity in technology.

As more philosophers of technology are emerging from an engineering background, the engineering philosophy of technology has been elaborated and it is now founded on Mitcham's definition of technology as a) artefact, b) knowledge, c) process and d) volition (Mitcham, 1994). Detailed treatment of this may be referred to in de Vries (2016c). Mitcham's philosophy of technology serves to strengthen the argument that general technology can be seen to have long burst the narrow banks of either engineering or applied science and cannot be solely defined by either. General technology has indeed spread out across the plains of natural science and human sciences. Thus, adopting a purely functional, technical, deterministic approach toward technology education only serves to misrepresent it. If a balance is not maintained between theory and practice, and technology is presented as being solely based on procedural knowledge, prejudices against technology are likely to be maintained (Williams, 2012a). Williams emphasizes that an unbalance of the intellectual aspects of technology education will only serve to foster suspicions about it. The balance needs to be maintained not just within the domains of conceptual and procedural knowledge types but also within disciplines. The interdisciplinarity of general technology education is considered vital for it to achieve its full potential. Some would argue that the interdisciplinarity of general technology education disqualifies it as a discipline, and such debates might constitute one reason why it has taken so long to establish general technology as a discrete area of study. It is interesting to note that while many traditional disciplines are much more introspective, general technology education encourages lateral thinking and strives to go beyond its own boundaries of knowledge (Williams, 2012a). This makes it quite unique and presents it as a powerful subject that targets many diverse and cross cutting skills in education.

Technology education is often confused with technical vocational education or engineering education. The differences between Technology Education, Technical Vocational Education and Engineering Education are concisely described by (de Vries, 2009). As described by de Vries, Technical Vocational Education and Engineering Education are two diverse forms of specialisation of technology. Technical Vocational Education usually focuses on procedural knowledge and normally targets the skills needed for industrial requirements. Engineering Education usually focuses on conceptual knowledge and normally targets skills required for innovative design and research. The aims of both these forms of specialisation is usually the formation of engineers. General technology education, on the other hand, is implicitly general and imports aspects from

both the vocational specialisation and the engineering specialisation. The aim of Technology Education is not the formation of engineers, but the formation of technologically literate citizens and consumers who actively take part in a democratic society. As outlined by (Barlex, 2012, 2015), the curriculum of Technology Education can be argued through four themes. The first is a utility argument, which means that technology is useful on a personal level for example in domestic settings. The second is a democratic argument, which means that an individual is informed adequately enough about technological systems to be able to evaluate and critique national project proposals and participate actively as a citizen in decisions that affect society. The third is a cultural argument, which means that an individual acknowledges that the profile of modern society has been influenced by the technological developments and revolutions through the history of humankind. The fourth is an economic argument, which means that Technology Education may be a useful vehicle to attract future generations into technological careers, one of them, engineering. Technology Education therefore has aims that go beyond just addressing the fourth argument.

De Vries (2009) identifies other terms like “educational technology” and “technological literacy or digital literacy”, which are also often confused with Technology Education. Both these terms are used to describe teaching and learning where technological content is not the main focus. Here the focus would be the means by which knowledge is taught or learnt, for example, the use of smartboards in a classroom, or the effectiveness of digital tablets on learning. It must be acknowledged that general Technology Education has evolved from craft. However, an analysis of nomenclature which was commonly used in different countries and at different times to describe the subject reveals that the philosophy of the subject has evolved greatly. Names for the subject have included the following: “Craft, Design and Technology”, to “Industrial Arts”, to “Science, Technology and Society”, to “Technology Education”, to “Technical Subjects”, to “Design and Technology Education”. Within such nomenclature, one could detect a move away from a philosophy of crafts and manual skills toward paths that include more conceptual knowledge from science and design. This can be perceived as a move toward a more conceptual engineering-like philosophy rather than a rehash of procedural vocational philosophy. Williams (2015) claims that the educational focus of technology education has shifted from manual skills, to industrial needs, to general technological literacy. Caution must be exercised though before making bold claims that Technology Education naturally mirrors features from Engineering Education. As de Vries, Gumaelius, and Skogh (2016a) highlight, for problem based learning or projects to be classified as pre-engineering, they have to satisfy certain criteria, usually ones that relate to function. One criterion is that the inclusion of science and mathematics should not feel artificial and result in the students probably noticing that these components were not really essential for a functional design. For a problem or project to be classified as pre-engineering education it must be a challenge which cannot be solved by trial and error or intuition. The criterion for mathematics especially should not just be doing a mere set of calculations. The problem needs to be formulated in such a way that without the use of mathematics it simply cannot be adequately solved. Needless to say, the formulation of such challenges is not easy considering the knowledge base which a student is exposed to until secondary school level. Research in this field such as that of de Vries, Gumaelius, and Skogh (2016b) is being conducted with regard to this respect.

General technology education targeted for the level of secondary school education therefore cannot be cleanly classified as either vocational or academic since its strength lies in the inclusion of features from both specializations. Barlex (2012, 2015) argues that a healthy general Technology Education curriculum should include five facets of technological capability: a) conceptual, b) technical, c) aesthetic, d) constructional, e) marketing. Knowledge in general

Technology Education should go beyond the knowledge of materials, tools and how to use them, but it should also encompass critique of the form and marketability of a product and the evaluation of its impact on society.

Pedagogy

Historically manual subjects were largely based on teaching practical skills. The pedagogy adopted to do this was not so different to the master apprentice model of a medieval guild where the pupil would be given a job, and shown all the skills and techniques necessary to produce a satisfactory outcome (Banks, 2009). However, to impart technological knowledge that is relevant in today's modern technological society one cannot rely only on a pedagogy that is solely based on practical doing tasks. It is not enough to reduce interactions with the material world to facts, techniques and routine strategies. Today's students need to be afforded the opportunity to analyse, generalise and synthesise perceptions, observations, actions and knowledge (Parkinson & Hope, 2009).

Research has shown that a classroom environment that encourages risk taking will serve to encourage innovative design practice while one where students are required to follow a set of prescribed routines to solve a low ambiguity, low risk task only serves to demotivate students (Nicholl & McLellan, 2009). The safe manufacture of quality products is still important, but it is only one restricted aspect of technological capability. The low risk, low ambiguity traditional model of teaching now proves to be inadequate as it teaches making skills without addressing understanding or development in other skills (Banks, 2009). Developing competencies for a specific vocation seems short sighted (Williams, 2015). Many a time employers openly state that specialised knowledge is irrelevant to the workplace and they are more interested in general competencies such as flexibility, creativity, critical thinking, innovation and adaptability. The vocational perspective of technology education provides less opportunity to adopt a student centred approach since students usually work toward the same set of externally devised competencies. In general technology education with an emphasis on authentic, real-world design, students generally work on different problems, or different aspects or interpretations of a problem and naturally, the prevailing pedagogy is therefore more student centred (Williams, 2015). Within the research literature of the last twenty years there has been a plea to change the pedagogical framework employed in the delivery of technology education curricula. The changes requested related to giving more agency to the voice of students (Lunt, 2009) and also more prominence in the learning space to the conceptual and hermeneutic aspects of technology and society. Needless to say, this has required significant perceptual reform (Dakers & de Vries, 2009) and in some cases and countries such reform is still challenged to date.

The goals, content, pedagogy and assessment of general technology education and vocational technology education are quite different and trying to combine these too closely may result in doing neither well (Williams, 2015), even if there exists financial or logistical reasons suggesting that such a combination makes sense in schools. For example, when it is the same technology teachers who teach both general and vocational subjects, the transposition between the philosophies governing the two approaches is not easy, especially for novice teachers, and often results in confusion, tension and bias (Williams, 2015).

General technology education is challenging a number of traditional characteristics of schooling like, the decontextualisation of knowledge, the primacy of the theoretical over the practical and the organization of the curriculum along disciplinary lines. Where technology education has developed and morphed from a trade or craft focus, aspects of traditional subjects have

inevitably been retained. Consequently, a subject called technology may only reflect modern requirements for technology education to a limited extent (Williams, 2012a). The manner in which technology was taught traditionally can be viewed as linear and unambiguous, leaving little room for democracy or divergent values. This has produced what we might call technologists, who favour quick technological solutions to fix problems, avoiding the messy complications of a more people oriented solution. With the advent of design in general technology education, the pedagogy needs to produce designers who account for people's needs and behaviours in their technological solutions for typically "wicked" problems. Design activity might mean dissipating efforts without gaining visible results (Williams, 2012a), and therefore it is not difficult to see why those not in direct contact with the students might think that general technology education is not delivering desired political outcomes. The focus on literacy and numeracy, the evaluation of education for economic ends and the vocationalisation of technology education result in adverse forces (Williams, 2009a). These forces might act negatively and constrict those culturally sensitive technology teachers who might wish to maximize individuality, social justice and diversity.

Stakeholders

Technology education up to secondary level of schooling is seen as a means for promoting post-school technological studies and professions. Stakeholders assess technology education against the purposes to which they subscribe and ultimately, the primary motivation depends, of course, on the stakeholder that promotes it. When technology education is shaped only by the values of those in authority and the existing political culture, it is probable that the move for technology education would be toward the direction of vocational education (de Vries, 2009). This might narrow the effects of scope and content, for example, the effects of technology on social systems may not be taught in any significant way (Dakers & de Vries, 2009; Williams, 2012a). No school subject has ever been removed from the curriculum because it did not result in measurable social effects. However, within a timespan as short as one or two decades, or even only one government period, technology education has been expected to meet and fulfil unrealistic expectations (de Vries, 2009). Stakeholders tend to be impatient when it comes to the realisation of the motives of technology education. Such expectations usually concern adult stakeholders like governments, industries and educators. The same cannot be said to apply to pupils as stakeholders since for students a new motive can be seen to appear; very simply that technology is worth studying because it is fun.

Teacher education structures, support systems and expectations

Few educational systems and even fewer universities place technology teacher education securely (Williams, 2009b). The number of technology students and staff is generally lower than other faculties within an educational institution. Given the higher costs associated with equipment, materials and workshops, a pure economics/business model does not fit well where technology education programmes are concerned (Williams, 2009a, 2009b). The competition and distribution of budgets has sometimes resulted in the closure of some programmes or else the continuous justification of others that remained. As curriculum revisions take place, it is not uncommon that the rationale for technology education needs re-arguing. It seems that technology education is only equated with training students in skills deemed for economic purposes and thus receives most attention only in difficult economic times (Williams, 1998). Even when teacher shortage is registered, guaranteeing employment does not seem to be an efficient marketing tool to attract more students. Recruitment into technology teacher education programmes remains difficult since from a university management perspective smaller classes affect the viability of programmes. A practical workshop approach to technology teacher education programmes is not consistent with economies of scale generated through large lecture groups (Williams, 2009a).

The philosophical approach and rationale for learning about technology in faculties such as engineering and industrial design is very often vocational, that is, to find a job in technological careers. This approach might not be transferable to general technology education. Williams (2012a) suggests that the fragmentation of technology education programmes that dissipate all over a university campus only to fit academically convenient packages should be resisted. This is not to imply that a technology education programme should be taught by educator pedagogues alone simply to keep a course together. He warns that faculties other than those of education might follow their own agenda and such a trend would result in reduced technology education faculty involvement. This would probably impact on research and general professional development in technology education where teaching and learning is concerned. When designing technology teacher education programmes a factor for consideration would be the extent to which elements of the programme are integrated.

Successful programmes deliver a consistent message about teaching by integrating a number of variables such as education studies, pedagogical studies, curriculum and practical experiences in schools, theory and practice of technological content, design, creativity and innovation (Williams, 2009a).

The instrumentalisation of teaching together with the vocationalisation of the curriculum can, in some respects, oppose the expectation of producing a reflective and critically engaged teaching practitioner. It certainly diminishes any social justice agenda a technology teacher programme might have since when these seek to affect social change by questioning the delivery of traditional content, they are often contradicted by practical experiences in schools (Williams, 2009a).

The introduction of competencies in some countries was accompanied by a move in teacher education away from universities and directly into schools. In many countries the preparation of teachers is moving toward a school-based apprenticeship model (Banks, 2009). This is especially due to the trend of defining a set list of competencies that must be displayed by a prospective teacher. Banks (2009) argues that this can lead to teaching being viewed as a purely mechanical activity that is restricted to a set of competencies and only serves to distil the intelligence and imagination out of teaching.

Teacher education subject knowledge

The breadth of school design and technology content is such that many technology teachers coming from a craft or science background do not have the subject knowledge, even in their specialist area, to teach the entire current school technology curriculum with confidence (Banks, 2009). The majority of teacher education programmes continue to battle against the legacy of technology education as a non-academic area of study dealing with a narrow range of skills and materials in a prevocational context (Williams, 2009a). While it is essential that the practical dimension of technology education be significant to enable students to understand technological principles and methods, it is not, by itself, adequate or sufficient. There are many cognitive technology skills that students should acquire (Williams, 2012b).

For example, knowledge of the industrial milieu and associated professional organisations can be a key component in building a community of links for technology education, however, the knowledge possessed by a technology teacher need not be the same as an engineer or a researcher in technology (Ginesté, 2009). Technology education that is distinctly general, broad and considers the social and environmental implication of technology can exist without losing the legacy of thinking in a practical context (Williams, 2009a). It is equally as important to identify

clearly that knowledge which is uniquely technological from other types of knowledge, for example, the scientific (Williams, 2012b).

Technology Teacher Education in Malta

The work by Navarro and Pule' (2015) presents a timeline of events on how the curricular subject of Technical Design and Technology (D&T) evolved within the last two decades of Maltese education. Delayed by approximately ten years, the evolution of the subject of Design and Technology in Malta can be seen to follow closely that for the UK. The subject's evolution for the English educational system until the year 2008 is comprehensively described by Benson (2009). The coming of the subject within the Maltese educational system has been through similar definitions, confusions, difficulties of identity, recognition and pedagogical implementation in schools and also at university, where initial teacher training courses were involved. Other countries have gone through similar experiences (Jones & de Vries, 2009). Such experiences have served to unify an international community of technology educators who have matured the field of technology education through research. The outcomes of such research have yielded common ailments which in the past plagued the subject, and in Malta, continue to do so to this present day as speculated by the authors.

Table 1 lists a brief summary of past courses delivered by the Faculty of Education at the University of Malta either on its own capacity or in conjunction with other faculties or departments and institutions for example, the Faculty of Engineering, the Faculty of Science and Mathematics and the Education Division.

The shortest one year courses were offered to instructors who taught in trade schools. With the closure of the trade schools, the intention at the time was to convert these instructors to teachers who would teach general technology in secondary schools. The assumption was that since the instructors were masters of their technological arts, the transition toward a new philosophy of teaching general technology would be natural and easy. While from a management perspective this was logical, the reality of the transition proved to be far from natural, easy or automatically agreeable for the instructors. As far as the authors know, there is no formal research on the matter. The authors' experiences of casual conversations with instructors together with the authors' personal involvement in the delivery of the short course in year 2001 reveal that instructors often felt insecure, overwhelmed and resistant to the change. Even those who faced the challenge with an open mind, took it and moved on, found it very difficult to cope with the breadth of knowledge required to teach the new subject of technology. Clearly, knowledge in technology is not always transferable and transitions are often unsuccessful when quick fixes are applied.

The earliest, longer, undergraduate course in 1981, possessed the structure of the student-worker scheme whereby the student-teacher spent six months at university and six months on a school placement each year of the course. Subsequently, until the year 2016, all undergraduate courses followed a four- year structure whereby the content was divided between general content and subject specific content according to the teaching area. From year 2016, the structure of the courses adopted the three plus two model whereby three undergraduate years are dedicated to subject specific technological content, while the last two years are pitched at a post-graduate level and dedicated to general pedagogy and also subject specific pedagogy.

The philosophy adopted

An overall analysis of titles, course programmes and eligibility of enrolment records reveals that the philosophy of the initial technology teacher education programme at the University of

Malta has slowly drifted from the vocational (meaning specialised with a focus on electrical and mechanical engineering knowledge) dichotomy toward the general dichotomy.

This is in line with international recommendations and also with the vision of the Faculty of Education which is to “promote an educated public in a participatory democracy”. The more recent programmes seek to ensure that the outgoing message is toward a technological literacy for all rather than the production of engineers, technicians or any other technologically related profession. This has culminated in a highly positive outcome for the country, that of having the general technological subject of Technical Design and Technology compulsory within the core curriculum of Year 7 and 8 of Maltese secondary schooling. The technology teacher programmes have also responded positively to political exigencies to continue addressing formally the vocational dichotomy by embracing the two philosophies in a more balanced way into the most recent courses to date.

Pedagogy, course content and ownership

The pedagogical methods for delivering the content specific to the teaching area was always varied according to the background subscribed to by individual lecturers who were either engineers, mathematicians, architects, artists, graphic designers or educational pedagogues. In this respect, the courses have always benefitted from having a diversity of styles for the technology student-teacher to tap into. Also, assessment methods or project work always ranged from teacher-centred, low-ambiguity, low-risk tasks to student-centred, high-ambiguity, high-risk tasks.

The technological content studied within the undergraduate courses has varied widely throughout the years. In early courses, when the title of the teaching area was ‘Technical Subjects’, many of the courses were imported from courses within the Faculty of Engineering and tackled a variety of typical electrical, electronics, mechanical and computer engineering topics. Units for teaching the pedagogical methodology for technology did not feature as separate units in the course programme. The methodology for teaching was merged with some of the engineering courses since a few of the latter were custom designed for technology teachers. There was a point where two courses were running concurrently and choices for units were available.

Thus the Technical Subjects route featured course content of an engineering-like nature in choice of topics and mathematically oriented knowledge, while the Technical Design and Technology route featured courses of a more general nature by having wider topic choices and less mathematically based knowledge. Eventually, the Technical Subjects route was dropped to retain the more general approach toward technology teacher preparation to-date, the route for Technical Design and Technology. In more recent years, with the breadth of technological topics ever increasing in the curriculum, the four-year model was proving to be as tight as a straight-jacket for the general approach toward technology. Thus the transition toward a three plus two-year model was welcome since this actively meant more time to cover technological and pedagogical course content comprehensively and in depth.

In year 2014, during the planning of the transition from a four-year model to a three plus two-year model, the Faculty of Education proposed that the newly revamped three-year undergraduate general Technical Design and Technology, that changed from being a BEd into being a BSc be housed under the Faculty of Engineering and run in collaboration with the Faculty of Education staff. This proposal was declined by the Faculty of Engineering and currently both undergraduate and post-graduate courses for technology teacher preparation remain under the auspices of the Faculty of Education, while the Faculty of Engineering still acts as a valuable servicing faculty.

Support for general technology education

Unfortunately, support for the technology teacher programmes was always lacking in a number of ways. The authors speculate that negative perceptions and misinformation about the courses were two prime culprits. To date, workshop facilities available to technology teachers at the university do not reflect the state of the art technology present in Maltese schools today, and recruitment for new members of academic or support staff remains non-existent. Ensuring high quality procedural knowledge for student-teachers is therefore especially difficult and dependent on other entities who may be kind enough to negotiate use of premises and availability of qualified staff to aid technology student-teachers in their practical work.

With respect to other countries, such as the UK, where technology teacher courses are openly supported by engineering communities or titan industrialists such as the James Dyson Foundation, the technology teacher education programme at the University of Malta is only weakly supported by the engineering community and at present, unsupported by any industries. Although the engineering community at university has always serviced the technology teacher programme promptly and excellently when requested, it is the authors' opinion that the attitudes retained resemble those reported by the document title "We think it's important but don't quite know what it is" produced by the Institution of Mechanical Engineers (2017). This is in contrast to some other attitudinal behaviours of engineering communities in other countries who acknowledge the importance of teaching and learning the subject of general design and technology as a valid potential education that might reliably lead to engineering professions, just as much as education within the sciences (Morgan, Jones, & Barlex, 2013, p. 2).

Achievements, Challenges and Lessons Learnt

Applicants for the courses in initial technology teacher education have always been few in number. While this may be perceived as a setback, having small numbers has helped in forming an affable community of technology teachers who have at heart a social agenda and who believe in their role as agents of change and facilitators of human development (Barak & Hacker, 2011; McLaren, 2012). Their own participation in national educational projects now serves to afford a greater voice for challenging underlying assumptions and implicit beliefs which may not benefit learners (Spendlove, 2012). This is considered an important measure of success for the neonate subject of Design and Technology as 'the' subject that promotes the general philosophy of technology education. The fact that the subject of Design and Technology has recently been made accessible to all learners in the Maltese curriculum is a relatively great success for the technology education agenda.

The technology teacher education agenda at the Faculty of Education continues to prioritize the dissemination of an overarching, unifying, explicit and rationalised philosophy of technology that primarily benefits a democratic society and challenges overly technicised methods of teaching technology. While immediate challenges remain to attract more students into its courses, its long term goals include a) to ensure a continuous learning line (de Vries, 2009, 2016a) for general technology education that includes the levels of primary and post-secondary schooling apart from the secondary level of schooling, and b) to encourage stronger links with the scientific and engineering communities and with industry. Throughout its experiential journey and through research, some of the lessons learnt have been the following a) that technological knowledge is not always easily transferable, b) that subscribing to traditional philosophical divisions of technology education, such as the vocational and academic, is unproductive and c) that without support from stakeholders, the vision for general technology education is severely threatened and may be stunted prematurely.

Table 1: Summary of past courses given by the Faculty of Education within technology education.

Year of commencement	Type of qualification and time span	Teaching area title	Primary Target audience	Overall subject specific course content orientation	Awarding body
1981	Undergraduate degree, 5 years	Electrical engineering / technology	Industrial technologists	Electrical and Electronics engineering	UOM
1993-1996	Undergraduate degree, 4 years	Technical subjects	Industrial technologists	Electrical / Electronics engineering and Mechanical engineering	UOM
1997	Undergraduate degree, 4 years	Technical Design and Technology / Technical Subjects / Graphical Communication	Industrial technologists and other students having no industrial background	Electrical / Electronics engineering and Mechanical engineering and Graphical Communication	UOM
2001 to 2016	Undergraduate degree, 4 years	Technical Design and Technology	Industrial technologists and other students having no industrial background	Electrical / Electronics engineering and Mechanical engineering and Graphical Communication	UOM
2016 to date	Undergraduate degree, 3 years + Postgraduate Masters degree, 2 years	Technical Design and Technology	Industrial technologists and other students having no industrial background	Electrical / Electronics engineering and Mechanical engineering and Graphical Communication	UOM
1991	Certificate course, 1 year	Technology A, B	Instructors in trade schools	Electrical / Electronics engineering and Mechanical engineering and Graphical Communication	UOM and Education Division
2001	Certificate course, 1 year	Technology A, B	Instructors in trade schools	Electrical / Electronics engineering and Mechanical engineering and Graphical Communication	UOM and Education Division

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Section II

EDUCATIONAL DEVELOPMENTS AND THE ROLE OF THE FACULTY OF EDUCATION

Schools, culture and the digital era. A case for change?

Patrick Camilleri

Abstract

Each era is marked by that something particular that ultimately defines its generation. The recent but significant technological changes have been so profound that they branded both the rising generation as digital natives and ultimately also defined the preceding ones as well. Yet how further does this acknowledgement go? The solid presence of ICT related policies in education in various countries may be a recognition of hope and trust that many governments are placing in the intrinsic qualities of digital technologies in formal educational contexts. However, for students, when structured school contexts are compared to the parallel experienced realities of fast paced open learning scenarios that tailored bubbles of digitally mediated realities offer, they do not really coincide. The ways technology is being dictated and perceived within schools may potentially be a source of a conceptual misalignment and therefore alienation. Through a reflective perspective approach based on personal life experiences and the employment of an interpretational lens grounded within discourse of Capital (Bourdieu, 1996), Structuration (Giddens, 2004) and the Duality of Technology (Orlikowski, 1992), this paper portrays and focuses on the qualities that are significantly observable in the rising generation of students commonly labelled as the digital natives. Subsequently, a case that contextualises and solicits change within recursive dialogues of students' popular culture and formal educational settings is discussed.

Keywords: Cultural Capital, Digital Technologies, Generation-Me, Recursivity, Schools, Students, Web 2.0

Introduction and Motivation

When I was a child, digital technology at home changed at a very slow pace. I remember that after Sunday mass, I really looked forward to tinker with a neglected transistor radio, which, in the absence of other competing technologies managed to retain its novelty for quite a while. With so much time at my disposal I afforded to venture out of my comfort zone and eventually discovered that somehow, I was able to snatch bits of communications from the control tower at the airport. I had enough time to experiment with, digest, learn and ultimately enact new forms of uses that went beyond what the mentioned gadget was designed to do. Yet, I believe that the turning point of my relation with technology was the famous portable audio cassette player that Sony branded as the Walkman. In reality I believe that my fascination went beyond face value. For the first time instead of a restrictive technology I owned an enabling one that did not constrain but allowed me to make a choice. It marked the onset of personalised and independent entertainment while on the move. It also marked the onset of an unabated flood of new devices. There was the colour

TV, the VHS, my first computer, the CD player and oversized mobile phone. Eventually, even with a dead slow Internet connection and a load of infinite patience, choice was no longer a luxury. When it comes to technology at home, things started getting progressively more interesting until it all became a blur. No wonder that Dearnley and Feather (2001), state that Information Technology has become so common place that perhaps we have already forgotten how recently it has been developed.

Now, as I thread along the same campus paths I did as a student more than a 25 years ago, I realise that back then, to have a programmable calculator and maybe a PDA (Personal Digital Assistant) was a sign of sophistication that nowadays not even the bitten apple logos on flashy and expensive gadgets manage to evoke anymore. The eye-catching Walkman has given way to a plethora of mobile devices which being ubiquitous, have slowly faded in the background, becoming a natural extension of ourselves (Turkle, 2017). "Technology is on the move; it moves with us now. It is as mobile as we are." (Merchant, 2012, p.770). Everywhere around me I see people sitting alone, absorbed in their handheld devices or huddled together; be it talking or texting; conversing with their screens, oblivious of everyone except maybe those in their immediate vicinity. At times I even wonder if it makes any sense talking about 'virtuality' except to differentiate between 'face-to-face' and 'face-to-gadget' communication. Public spaces like cafes are appropriately designed to facilitate the physical presence, socialisation and dialogue to flourish, but the crowd seems to have become quieter, more subdued. Nowadays face-to-face communication has to compete with self-created bubbles of social media in the same ways that vocabulary and spoken language have now morphed to embrace the various modalities of self-expression such as video clips, photographs, selfies sounds or any other channel of communication that the user, as the creator, may choose to evoke. I suppose that now, whenever people want to physically converse with each other they should go somewhere where there is no Internet. Nonetheless public spaces that have free Internet tend to have a leading edge on others that do not. Usually they will also be the first places to fill up. It is very difficult not to be constantly connected and as people carry with them their own personalised devices they have also grown accustomed to integrate conversation in physical spaces with those on the other side of the screen. "[...] it is apparent that [...] practices have evolved as rapidly as the technology itself." (Merchant, 2012, p. 770).

But in the same instances of celebrating this culmination of interactivity and opportunities of self-expression, one also has to consider that a substantial segment of the connected crowd are students who spend a generous amount of their time within the exerted extended boundaries of the institutional parameters of the school. Thus, is the school reality and therefore formal education reflecting the fast digitally mediated change, taking place outside? Rosenstock (2014) states that while everything seems to have accelerated, schools have not. While not immune to change they are also responding to it very slowly (Facer, 2012). Therefore, with the assumption of achieving their full potential through traditional stand-and-deliver text book driven methodologies it does not really come as a surprise if students power down as soon as they enter the school (Heppell, 2006).

Accordingly, motivations underlying this write up are succinctly presented as follows:

- a) What cultural capital is indicative of today's digitally inclined students?
- b) How much do the two realities of outside and inside the schools correspond with, and conform to, each other?

This write-up is consequently organised as follows:

Firstly, the principle of cultural capital as a form of a collectively owned credential within the rising digital native culture will be employed to explain the symbolic struggle (Bourdieu, 1986) that is ensuing between students' collective practices and school culture. Bourdieu (1986) makes reference to three guises of capital that include the Economic, Cultural and Social Capital. While all forms of capital are related, in this write-up, two; the Cultural and the Social Capital; will be taken in consideration. While the Cultural Capital relates to the habitus (lifestyles and ways of thinking) of those involved (Bourdieu, 1986), it is also inherent of the characteristics and identity of the person. In the case of the Cultural Capital, specific focus is placed on those embodied forms that pertain to the younger generation, taken as empowering the agency to instigate change in the institutional qualities exerted by the school.

Secondly within the 'space' of what is taken for granted and fact, focus is placed on recursive processes taking place between, the agency as the catalyst of change within school dynamics, and, the institutional rules that dictate school dynamics. Subsequently, through a theoretical synthesis of Structuration (Giddens, 2004) and the Duality of Technology (Orlikowski, 1992), nascent observable traits that constitute the younger generation and inherently acting as a source of alienation from the school, such as, enhanced individuality and subsequent Web 2.0 trends will be analysed and discussed.

Finally, these will be contextualised within existing school realities as possible sources of cognitive misalignment providing arguments for accommodation, transformation and change.

A brief theoretical outlook

Things do not happen in a vacuum. Rather, the "[...] specific agglomerations of 'reality' and 'knowledge' pertain to specific contexts" (Berger & Luckmann, 1967, p.20). They form part of a perceived reality taking place somewhere between tacit and explicit knowledge. Durkheim (1977) argued that we inhabit a reality of social facts where educational transformations are always the symptomatic effect of the social transformations in which they are to be explained. Thus, while schools exert strong structural properties they are also prone to the effects of the multiple realities they are being subjected to. This intrinsically includes the fact that the personified agency of students' actions can prompt for change to take place in teaching and learning trends.

For Bourdieu (1986), Capital like Structure and Agency for Giddens (2004) make up the source underlying individual and social structure. The objectivity of things and the set of constraints weaved within the very reality of that world not only determines the successful outcomes of practices but accounts for the structuring and functioning of the social world. Subsequently the various facets of students' Cultural Capital, the underlying traits of popular culture, the relations with digital technologies and the nascent behaviours that complement students' cultural traits and the qualities of the technologies should themselves drive the agency for change. In the model on the duality of structure, Orlikowski (1992) observes how patterns repeated over time become standardised practices in the organisation. Through habitual use, these practices develop meaning and become institutionalised. Subsequently these practices give rise to the structural properties that bubble up to be expressed as norms and habitual behaviours the young generation comes to acquire and manifest as part of their Social Capital.

What follows is therefore an outlook into the various facets of Cultural Capital embraced by the students. These comprise the underlying traits of popular culture, the relations with digital technologies and the nascent behaviours that complement students' cultural traits and the qualities of the technologies themselves driving the agency for change.

Our Students. Generation-Me

The Cultural Capital that denotes digital nativity as the source for observable digitally inclined practices are referred to by Prensky (2001) as a period of 'discontinuity', a 'singularity' in the history of human events. Periods of tranquillity or a plateau of stabilisation and the re-establishment of equilibrium usually follow sociological changes. In this case this alleged singularity not only defined the arrival and rapid dissemination of digital technology but stayed on the rise, since then unabated.

The popularisation of the Internet is in several occasions likened to the revolution in literacy brought about by the invention of the Gutenberg printing press. The mechanical press was capable of churning out books, initially bibles (Palfrey & Gasser, 2008), at a rate that unquestionably superseded writing books by hand. But books were allegedly directed to those who could not afford them. With illiteracy being a full-fledged characteristic for centuries, books took quite some time to catch up. On the other hand, the onset of digital technologies turned out to be very different. The NAEYC (National Association for the Education of Young Children, 2012), takes a more drastic measure because it refers to the digitally catalysed change as significantly disruptive in part to the shift from oral to print literacy or from the written to the printing press. "By contrast, the invention and adoption of digital technologies by more than a billion people has occurred over the span of a few decades" (Palfrey & Gasser, p.3, 2008). Incidentally Prensky (2001) also notes that unlike books, these technologies do not seem to require much effort to be adopted by the younger ones. From the onset the relation between child and digital technology is immersive which also asserts why these digital natives are not only very skilful in the use of digital technologies but have come to rely on them as the most common form of self-expression. Unequivocally, the digital natives turn out to be those who prefer a computer screen in preference to the TV (Barnes, 2012). They are the ones whom; metaphorically speaking; initially preferred to sit straight in front of a desk or lean forward towards a computer screen hands firmly on a keyboard and mouse in favour of leaning back on a couch (Auletta, 2009). They have now moved on to carry the screen with them wherever they go. They are the ones who prefer and choose amateur user-generated like YouTube content in favour of the professional productions of the TV. They are the ones who, sustained with the qualities of freedom of speech with digital technologies and the Internet, are inclined to be actively involved in preference of passive reception. They are the Generation-Me; GenMe in short (Twenge, 2006). They are those to whom the most important characteristic is the elevation and conservation of the 'Me'.

The 'like' button changed the whole psychology of Facebook and the way people interacted online. Eventually it was adopted by other social networks. What started as a passive way to track friends turned out to be deeply interactive (Alter, 2017). No wonder that, the rise of a Cultural Capital tantamount to the importance of the self and individuality found its way in trendy marketing campaigns paving the way to upward recursive cycles that strengthened the traits and the boosted the campaigns further. Examples include the US Army slogan the "Army of One" (Tyson Scott, 2006), the shift of the Prudential Insurance slogan from: "Get a Piece of the Rock" as the centrepiece of a campaign to, "Be your own rock" (Elliott, 1996) and Nike's mantra "Just do it" (Wikipedia, 2013). But most probably the best adhered to indication of the importance of the 'me' came from Apple when the eMac; with 'e' for education; was changed to the 'i'. Initially the 'i' was directed towards the Internet. Eventually it was adopted within the 'me in control' frame of mind, for all the trendy Apple products like the iPhone, iPad, iCloud and iMac. Undoubtedly the sophistication in technology made it more pliable to user interpretation with an indicative positive shift towards the first person. This stance was soon adopted in iGoogle (now defunct) and the 'YOU' in YouTube, by default set to promote self-expression through user-generated content.

The same can be said on the way the Internet evolved. It not only grew around its users but was also fashioned according to the users' needs and inclinations. "The Internet above all is a cultural creation" (Castells, 2002, p. 32).

Sewell (1992) makes reference to deep structural schemas that lie beneath and generate a range of surface structures in the same way that structures underlie and generate practices (ibid., 1992). In this case the transition of the Internet as the Information Super Highway and Web 1.0; to describe a passive form of surfing and harvesting of non-editable forms; to Web 2.0 as the next evolutionary step to designate an attitudinal change from a passive to a user-active form of interaction with the technology cannot just be seen as a description of what was happening. It is suggestive of a paradigm shift in a living scenario redolent of unravelling recursive dialogues continuously taking place between users and, new and reconfigurable technologies that ultimately nurture new directions for technology development, inexorably bringing about further attitudinal shifts in the users themselves. Incidentally the qualities that essentially constitute Web 2.0, point towards the embodied behaviours and Cultural Capital embraced by the younger generation, compliant to the individualistic traits of the GenMe leaning towards and complementing enhanced peer production. Web 2.0 traits encourage several structural properties that advocate the GenMe's Cultural Capital placing the individual in the centre of activity such as: characteristics and development of user presence independent of space and time, personalisation of space of use, user generated content and social participation boosting their Social Capital. Therefore, with a mutual kind of exchange taking place between the complementary Web 2.0 characteristics and the GenMe traits, it is only natural that we are experiencing a generation of students whom being deeply involved with digital technology manifest a class of Social Capital that is heavily reliant on social networking. This inadvertently is making them more predisposed to instantaneous feedback the way 'like' or 'share' on social networks has become a form of basic social support and the online equivalent to laughing at a friend's joke in public (Alter, 2017).

With technology persistently at their fingertips they are always 'on', constantly phasing in and out between the various realities on and off various screens. No wonder they are considered to act in non-linear manners. They express themselves through blogging, collaborate in wikis or on the cloud. They share information, work and play in vast online communities and in the meantime, they socialise with people they know or have just got acquainted with. They learn by browsing, augmenting on or amending each other's work, and this they do while they are on the run through one or various screens. Incidentally it is of concern if this generation is taken to be composed of shallow thinkers, unable to focus and work in logical ways when in fact they are brought up in a popular culture that is accustomed to be multitasking. Just by peeking at their computer screens when they are working gives an idea of how they think, of their capability of simultaneously working on various levels, doing different things in parallel just when inspiration hits. "Our students have changed radically. Today's students are no longer the people our educational system was designed to teach" (Prensky, 2001, p.1). Away from the rigid constraints of school these students are subjecting themselves to vistas where they can openly express and promote the 'Me'. They are aware that their actions are liable to be measured. They portray unique characteristics that make them radically different from those that have come before them. Born in an era of constant and instantaneous connectivity they are used to prompt feedback. Different social networks, email and mobile phones allow them to connect to anyone, anywhere and anytime. The flexibility and power of user-defined technologies allows them to interact differently. They are used to have their say and they know that in their own chosen spaces they are allowed to share their opinions and points of view openly. They are also aware that they will be heard and therefore adopt a decision maker approach where they decide what to publish, how, when and to whom they deem

worthy. They learn to reflect on the consequences before they make their point of view public. They are very much aware that anyone can potentially interact with what they create. They learn on how to become their own directors and producers of their creations. Ultimately, they learn to embrace criticism from their targeted audience. Their experience of the world and knowledge is also seen to be different. The technology they readily have at their fingertips allows them to see the world and knowledge as one big network. For them information is presented into an infinitely intricate web of interconnected nodes, a liability to personalised choices that once made can be weaved into patterns of user generated knowledge. In their private networks, these students are active learners, they know what it means to learn to learn.

The Reality Called School

So how does reality compare with the reality being offered in the school? As a first, the majority of students now populating schools come cushioned between stocks of technological developments that allow them to effortlessly adapt to spurts of change that practically can take place overnight. Most probably the teachers who are in direct contact with these students have been taught and are accustomed to access knowledge and learn differently. It is therefore integral to prepare teachers with appropriate digitally mediated pedagogies and attitudes that translate formal educational practices and facilitate learning in conformity with students' personal and less obvious learning practices. Still, it does not directly imply that teachers will automatically be capable of adjusting teaching styles to conform with students' changing attitudes.

Digital tools, connected applications and mediated attitudes are taken to be enabling and transformative (Selwyn & Facer, 2013; Fullan & Langworthy, 2013; Fullan & Langworthy, 2014; Eguchi, 2016). Yet they must also be aligned within related embodied routines (Olsen, 2000; Cuban, 1993). Classroom technologies such as the chair, the table and the book have had their time to be domesticated and have had their intrinsic qualities endorsed and exemplified in use by teachers and students alike for quite some time (Olsen, 2000). However, it is not the case for digital technologies which, reminiscent of rapid changes are invariably met with resistance that must not always be attributable with refusal but more so with issues of adoption and accommodation, and therefore conceptual misalignments between perceived usefulness, ease of use and actual implementation.

In a study that gauged social media preferences within a group of employees aged below 30¹ working in a computer company, Friedl and Verc'ic (2011) indicated the presence of a disparity between the heavy employment of digital media in personal spheres to their limited use in work related activities with an inclination to the application of more traditional modes of communication in their professional spheres. The same can be said when evaluating how a group of Maltese teachers teaching Advanced Physics contextualized the use of the Internet. In this case Camilleri (2012) reported a distinct discrepancy between extensive personal use of Internet based technologies and their low application for professional educational contexts. Thus, as the first digital natives start taking teachers' and leading educators' roles, it cannot be taken for granted that this will automatically equate into them educating and teaching otherwise (Sheninger, 2014). Rather, and as articulated through associated literature on technology adaptation models and Information systems (Camilleri, 2012; Tyre & Orlikowski, 1994; Van de Ven, 1986), there is no promise that all these newcomers are capable of inspiring through their conduct or will be capable of transferring personally acquired digitally mediated traits to the work environment especially when they themselves have received most of their formal education in traditional approaches.

¹ In this case the respondents were taken to represent a mature cohort of digital natives.

As a second, these digital natives may not only be physically populating the same school physical edifices as their digital immigrant or settler² counterparts but also experiencing the same teaching systems. Politically speaking, schools today still abide to the most important and pervasive state reform of mass education. While fittingly politically franchised (because it entitled young people to access educational and social opportunities) they are also designed around an ideological state apparatus (Althusser, 1971). Intrinsicly they still follow factory-like systems that emerged in the industrial revolution to train the future labour force, sustaining order and control (Hargreaves, 2001). These same schools are also being physically designed by professionals whom, being accomplished outcomes of an Industrial or Fordist pedagogy (Bates, 2000), can only vouch for and perpetuate the ways they have been brought up in. Invariably classes in schools continue to be organized as factory floors. Schools are structured to embrace and perpetuate the factory mentality with bells that mark the beginning and end of lessons. Schools also continue to process and classify students according to age and ability in classes. They follow centrally dictated criteria, standardised academic curricula and written tests that lean towards recitation, limiting initiative and personalisation.

As a third, as soon as students step on the school's doorstep they are not only being stripped off their gadgets but are also being stripped off, of all those related digitally enacted qualities of interaction, collaboration and instantaneous feedback they are more accustomed to, outside the school. The consensus that harnessing Web 2.0 qualities and applying students' social practices in educational contexts will make schools interesting has seen the introduction of a plethora of hardware.

Schools have also come to recognise that using the tools that appeal to the students will make a difference on how they will learn. That is the reason why there is a movement of ICT inclusion in schools. Yet, "[...] technological change is not additive: it is ecological" (Postman, 1995, p.18), which in a way nicely wraps up again with the resistance of schools to embrace emerging digital technologies. Ironically, in schools, rather than being accompanied with innovative pedagogies, digital technologies are being immersed in Fordist realities (Bates, 2000) where productivity is favoured over creativity, further alienating students from the experiences they are accustomed to.

Conclusion

What does dial a number mean anyway?

The history of technology and education has been tackled by many (Cuban, 1986; van Dam, 1999; Rosenberg, 2001; Robertson, 2003; Barber, 2014). Undeniably, the inclusion of digital tools in formal educational contexts has brought some improvements in education but the expected transformation by the use of digitally mediated technologies in schools has still to materialise (Laurillard, 2008; Livingstone, 2012; Barber, 2014; Hess & Saxberg, 2014). Heppell (2011), confirms that: "Education doesn't have a very good track record with innovative technologies", and the problem when faced with emerging technologies has always been the focus on the wrong arguments. Thus, instead of querying in terms of a simple productivity view on: "[...] how can this new thing usefully improve what we are already doing? [...]", the question to be asked should be, "[...] what new things we might now do?" (Heppell, 2011). Heppell (2011) also refers

² Digital Immigrants and Digital Settlers are terms coined by Palfrey and Gasser (2008) to distinguish those who have come to adapt to the digital revolution from the Digital Natives who, born after the year 2000, do not know what a life without Internet based technologies implies.

to the unfortunate cycles of adoption and interpretation of technology. In addition to what is being discussed, the inclusion of new technologies has always been met with suspicion, initially rebuked within educational contexts to be then accepted, often after being heavily censored. To mention a few, there was apprehension that ballpoint pens would ruin handwriting but were then accepted. Educators were also concerned that coloured computer monitors might be detrimental to the eyes (ibid. 2011) eventually they were adopted in schools and libraries. Lately, in local schools, there is the issue of heavy filtering in broadband Internet services and limited access in schools for the students which is quite a mismatch to the policy of enhancing 21st century skills underlying the distribution of Tablets PCs.

Unfortunately, the rapidity with which digital technology and related attitudes are changing does not help. When the pace of technological change was slow we could afford to wait and see how it goes, negate a technology, make a U-turns and eventually accept it. Now we do not have that luxury. In 2006, Heppell mentioned how the once gentle slope of the exponential curve of change was then beginning to steepen very rapidly. That was in 2006. Now; as he had predicted; we are in the steep bit, where the progress in technology and associated behaviours are leaping skywards. “[...] we have but the blink of an eye to make sense of huge leaps in technological capability, and that changes everything” (2006). Unfortunately, teachers being the main actors on the receiving side may inadvertently end up burdening themselves with effects of limited successful outcomes.

At the meeting of the Senior Experts’ Group held in Paris in 2013, the Secretariat working group within the UNESCO prepared a document denoted as Education Research and Foresight (UNESCO 2013). The ensuing outcomes of the document focused on two broad thematic objectives that underlined the effects that uncertainty, societal changes and reacting educational outcomes bring about. Established economic, financial, scientific and technological power are no longer being considered as unailing. Same goes for the nature and ways knowledge and skills are being reproduced transmitted and appropriated. The premise that formal education is a guarantee for enhancing employment and ensuring a better financial future is in doubt. Rather, communities entering formal education hoping for successful job employment. are being faced with a lack of opportunities that qualified jobs were taken to procure. “This frustration gap is leading to a growing disillusion with the value of education as a vehicle for social integration and greater wellbeing.” (UNESCO, 2013, p.13). In this case unless recognized and properly harnessed the digital revolution will end up not really helping at all. “The massive shifts technology and globalization are expected to wreak on the workplace” (International Society for Technology in Education, ISTE, 2017).

When compared to the industrial era, the postindustrial leap, or fourth Industrial Revolution (World Economic Forum, 2016) in education and schooling is likened to the transformation that took place when people migrated from rural areas into the cities to populate production lines in factories. The transformation in formal educational contexts solicits for the development of new learning spaces that favour networked forms of learning and teamwork (UNESCO, 2013). It is something that our students already seem to be doing in their private spheres. Nevertheless, in face of preparing our students for jobs that do not yet exist and enhancing traits for the recognition of potential skills that are not even considered crucial today (ISTE, 2017), schools are still promoting 20th century siloed segregated teaching models. It is estimated that 65% of all children entering primary school will take working positions that have yet to be conceived (World Economic Forum, 2016) and that by 2020, more than a third of the core skill sets required for most jobs will include skills that are not taken as being crucial today. Ultimately if the skills and popular culture exhibited by the students today, are not recognised, understood and

meaningfully contextualised in updated educational models within worldwide contexts, then the required quantum leap towards a successful implementation of the Social Capital of the digital natives in educational contexts will be difficult to achieve.

Thus:

[...] the single biggest problem facing education today is that our Digital Immigrant instructors, who speak an out-dated language [...] are struggling to teach a population that speaks an entirely new language. [...] What does “dial” a number mean, anyway? (Prensky, 2001, p.2)

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Section III
**LEADERSHIP, TEACHER AGENCY
AND PROFESSIONAL LEARNING**

Introduction to Section 3

This section explores various initiatives undertaken or being undertaken to bring about school improvement by focusing on issues related to governance, leadership, teacher professional development, willpower and self-efficacy. It shows the commitment as a Faculty to engage directly in schools so as to nurture professional learning mainly through engagement with school leaders and teachers.

In the first paper, Christopher Bezzina presents us with a chapter that was published in the North American journal *Theory Into Practice* back in 2006. Whilst exploring key aspects of the professional learning community in the literature, it examines the difficulties and the benefits as a Maltese secondary school challenged familiar norms and relationships so as to move towards the establishment of a professional community. In a context of reform the need to nurture schools as learning communities cannot be taken lightly and efforts need to be made to help, support school become empowered and inclusive communities.

Carl-Mario Sultana's paper encourages us to adopt a student-centred approach rather than a teacher-centred one by focusing on the need to engage with students in a constructivist manner. Within a Church school setting, he argues that the task of evangelisation – a central aim behind Catholic schools – can be accomplished by rendering our schools 'special places' where communities of practice based on the notion of 'legitimate peripheral participation' is particularly important as people come together to engage in different ways.

In the next paper, James Calleja reports on the learning experiences of a group of secondary school teachers of mathematics as they engaged in a continuing professional development programme. This chapter helps the reader to appreciate more deeply the initiative undertaken by members of the Faculty not only to research but also to engage with the research in such ways that allows one to bring about change. This chapter helps reinforce our concerns that in Malta there appears to be little room for teachers' autonomy and agency as a result of an educational system that is prescriptive, standardised and outcomes-driven and supported by summative assessment methods. This study revealed how teachers developed their knowledge about teaching through inquiry within the Community of Practice (CoP) and, hence, learned new ways of being and acting. Engagement in the CoP shaped teachers' identities and their self-perception of their roles in learning about teaching. The need is to reculture our schools and not inundate them with prescription from above.

In another paper on teacher agency, Mark Farrugia takes us through his current doctoral studies based on a case study approach. The chapter takes us through a series of proposals, theories and discussions that he is engaging with, helping the reader not only to appreciate the intricate, delicate process that learning entails and requires, but also to recognise the complexity of personal learning and development.

Rose Anne Cuschieri provides us with an interesting paper on willpower, an area which is under-researched. Through this introductory study involving interviews and questionnaire surveys the results show that willpower is an important characteristic of leaders, influencing human dynamics and situational outcomes. This study helps leaders to appreciate that the impact of decisions they take on a daily basis, of whatever dimension, cannot be overlooked and that they ought to be reflected upon.

In another paper Alan Scerri investigates the identity and mission of Catholic schooling within secularised and pluralistic societies. This chapter is about values and how values underpin the lives we lead, in whatever context we may be in. Adopting a comparative approach, the study highlights the importance behind community, worship, inclusion and service to others. Whether Catholic or secular, schools, as living communities, have a central role in ensuring that moral and ethical values are nurtured. This study, although involving four Catholic schools, helps to show that the aim of the schools was not to keep alive the teachings of the Catholic faith but to challenge students to reflect, discern and engage in mature and fruitful dialogue within a multi-faith society.

The final paper in this section Milosh Raykov presents us with a synthesis of findings from recent international surveys that explore current trends and practices related to teacher leadership. Such reviews help to enlighten our own discourse about professional learning in a context where learning is taking central stage in educational development in Malta. Exploring such trends helps us to discuss, debate and map out potential opportunities for the local scene. At the same time, it provides us with research studies that can be undertaken locally and with co-operating institutions abroad.

Section III

LEADERSHIP, TEACHER AGENCY AND PROFESSIONAL LEARNING

The Road less Traveled: Professional Communities in Secondary Schools.

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Christopher Bezzina

Abstract

During the last 4 decades, numerous reform efforts have been proposed to improve schools. Two reforms, decentralization and teacher collaboration, seemed to coalesce by the 1990s to pave the way toward a new understanding of leading and learning in schools. In retrospect, the decentralization movement and the literature on teacher collaboration appear to have been significant precursors to an emerging concept called professional community. This paper explores key aspects of professional community, discusses potential benefits, and examines difficulties that principals and teachers may face as they try to shift from familiar norms and relationships to the establishment of professional communities in schools. The shift may require principals and teachers to confront longstanding traditions and may involve profound changes in attitudes and practices. The chapter draws on the literature, as well as illustrations from an empirical study in Maltese secondary schools, to suggest several ways in which the principal and other school members might facilitate the establishment of professional learning communities.

Keywords: educational reforms, schools, professional learning communities.

Secondary schools have often been accused of resisting change or being slow to change. During the last 4 decades, various reform efforts have been proposed to improve schools. Two efforts, decentralization and teacher collaboration, have paved the way toward a new understanding of leading and learning in schools. The decentralization movement and the literature on teacher collaboration appear to have been significant precursors to an emerging concept called the professional learning community (PLC). This article explores benefits of PLCs as highlighted in the literature and in a case study of a Maltese secondary school that is on its way to becoming a PLC. It also acknowledges concerns and difficulties that leaders and teachers face as they take the road less traveled. The literature suggests that schools working to become PLCs will likely face similar issues regardless of geographical location. These issues include self-management, leadership, collegial relationships, the development of collective capacity, and a focus on teaching and learning.

The Self-Managing School

The concept of the PLC has its roots in school improvement literature that emphasizes the self-managing nature of the improving school. Schools are more effective when they are organizations

that can take control and determine ways of addressing local and national agendas (e.g., prescribed curricula, national standards) but at the same time are aided by external support (Leithwood & Lewis, 2000). In short, when schools are empowered and can operate within a context of autonomy and support, they have much better prospects for improvement. Researchers have been looking for similarities among schools with successful school improvement programs to create lists of what works in school improvement. Harris (2002) conducted a broad comparative analysis of highly successful school improvement programs and demonstrated a number of shared principles or features. This comparative study showed that although the school improvement programs and projects under scrutiny varied in terms of content, nature, and approach, they reflected a similar philosophy. Central to this philosophy was an adherence to the belief that the school is the center of change and the teacher is the catalyst for classroom change and development.

Within these highly effective school improvement programs, shared nonnegotiable elements included a commitment to professional development, devolved leadership, and a focus on teaching and learning (Harris & Chapman, 2002; Mulford, 2003). Schools are influenced by politics, society, and their local context (Gronn, 2002). Thus, even if current educational discourse supports particular developments and proposes ideals toward which the nation should work, the reception of new ideas and practices still depends on the way the concepts of power, influence, authority, coercion, manipulation, and deterrence have influenced and determined practices in the past. Moving from a highly centralized system of education to a more decentralized mode of practice, or what Fullan (2003) described as the moral imperative of school leadership, demands hard work. Assumptions about the traditional role of the principal must be examined, stakeholders must learn how to change roles to be involved participants, the concept of learning must change, and then supportive procedures must follow. With a similar philosophy in mind, during the last decade Malta has been moving away from a highly centralized and bureaucratic system to one that encourages broader involvement in policy making and more collaboration among stakeholders. Initiated by the Ministry of Education and supported at the national level, educators and schools have greater responsibility to determine the way forward and to develop schools as learning communities. Salafia's (2003) study to discover how a Maltese secondary school was moving toward becoming a PLC illustrated how schools may begin the change process and suggested steps for further growth (see Table 1).

Teachers rated their school as having a good beginning and discovered that they had some favorable foundations on which to build.

Table: Key Initiatives

1. Teaching staff and principal introduced to the concept of the learning community
2. Questionnaire surveys and interviews held with teaching staff
3. Interviews held with pupils
4. Interviews with teachers, Senior Management Team, and principal
5. Review of school documentation
6. Seminars and staff meetings introduced
7. Collaborative practices introduced (with a focus on gender equity) to develop school vision and aims
8. Identification of staff assigned special responsibilities to coach, mentor, and facilitate learning
9. Pupil involvement
10. Parental involvement
11. Feedback to principal and staff

Indeed, the study indicated that the school's stronger building blocks were learning dynamics and organizational transformation. Their weaker building blocks included technology and its use, people empowerment, and knowledge management (American Society for Training & Development, 1998). Teacher interviews revealed that the school provided opportunities for teachers' personal learning and development, mainly through seminars and staff development meetings. As for collective or group learning, school documentation showed that a number of working groups, generally organized around subject matter, were already in place. Teachers believed that working group meetings were useful because they helped teachers share ideas, direct their teaching, and solve problems that emerged. Such meetings created an opportunity to address issues together. "Brainstorming helped us resolve problems dealing with special situations and topics," noted one teacher. Furthermore, the opportunity to share allowed them to come together and abide by decisions taken. "We share ideas about how to do things and stick together in planning various activities." To develop the organization, the principal and the Senior Management Team (SMT) began examining the school's strategies, structure, and culture. However, an issue of leadership and participation quickly became apparent.

The principal expressed concern that, although schools were being given greater responsibility in determining school development, the political context in which reforms were taking place were still being determined by central authorities or union mandates. The literature and the Maltese case study suggest that before PLCs can be established, certain prerequisites at the systems level are helpful.

These include:

- genuine belief in the benefits of decentralization and the various forms it can take;
- the development of a clear strategic plan that allows all stakeholders to change, adapt, and develop the appropriate attitudes, values, and dispositions to take on more responsibilities at various levels of the education system; and
- an appropriate infrastructure that would allow such a process to be introduced.

Leadership for Successful School Reform

Effective or purposeful leadership is generally accepted as a central component in implementing and sustaining school improvement. Evidence from school improvement literature, starting with seminal studies in the United States (Brookover et al, 1979; Edmonds, 1982) and the United Kingdom (Rutter, Maughan, Mortimore, Ouston & Smith, 1979), consistently highlight that effective leaders exercise a direct or indirect but powerful influence on the school's capacity to implement reforms and improve students' levels of achievement. Although quality of teaching strongly influences and determines the level of student motivation and achievement, quality of leadership matters in determining the motivation of teachers and the quality of their teaching (Fullan, 2001; Sergiovanni, 2001). The past decade has produced some major developments in the reconceptualization of educational leadership for successful school reform. Leadership is now associated with concepts such as empowerment, transformation, and community. Leadership no longer refers only to titular or officially designated leaders, but can be distributed within the school among members of teaching or support staff.

The ability to lead is dependent on others and the relationships or networks leaders cultivate (Fullan, 2001). Thus, teachers as leaders and teachers as supporters of leaders are beginning to play a central role in determining school reform. The concept of teacher leadership is not a new concept in a number of countries, notably the United States, Canada, and Australia, and researchers have documented leadership roles and functions of teachers in processes of

successful school reform for some time (Silins, Mulford, Zarins & Bishop, 2000). More recently, researchers have begun exploring efforts that involve teacher leaders at various levels of school improvement in additional countries. Their work examines teacher leadership as it relates to distributed leadership, sustainable leadership, teacher teaming, and collective approaches to school improvement (Hollingsworth, 2004). Data from the Maltese school showed that the principal realized that she needed to make a personal commitment to encourage the shift in beliefs necessary for forging new kinds of relationships between, and among, all members of staff. She also realized that she needed to be an exemplary role model. Her stated belief of modeling good practice was evident in her comment, "What you believe in is contagious. Indeed, to walk the talk is no mere slogan." The principal pointed out that retaining enthusiasm in spite of difficulties is draining in its own right. She found this role of leader as model quite daunting and extremely time consuming, so her efforts have been sporadic, although she wants to be more structured and strategic in her approach.

Other members of the SMT agreed with the principal that modeling desired dispositions and actions to enhance other members' capacities and enthusiasm for change is challenging and psychologically demanding. As one deputy principal said, "Listening to everyone's opinions, taking on board varied and at times diverse suggestions, and trying to draw some common conclusions is far from easy." And, to really highlight the difficulties of engaging people in collaborative work, one teacher stated "The opportunity to come together really brings out the real character of people!" The principal saw her leadership role as that of a designer, a teacher, and a steward. She explained her role of designer as being involved in building a shared vision for the school. Building a shared vision consisted of building teamwork to develop the school aims and to see that they were reached (Salafia, 2003).

Work produced through teamwork efforts showed some success. The principal saw her leadership role as that of teacher in the sense that she attended to systemic structures by introducing more democratic processes into the school. Although the school lacked an overarching vision, the principal had what Senge (1993) described as a purpose story, or a larger vision that went beyond the school (i.e., how the school's efforts fit into the larger picture of national decentralization of authority). However, at the time the research was carried out, the principal in her role as a teacher did not put enough emphasis on the purpose story. Minimal reference to the story was made during meetings and in the school's documentation. In a similar way, there was no observable action or documentation that seemed to integrate the purpose story with the systemic structures the principal initiated. In her leadership role as steward, the principal seemed to be taking care of the school aims by creating structures to see that they were reached. However, not enough emphasis was made to publicize and develop her global personal vision or purpose story. The staff needed more help to relate the school aims (and eventually the shared vision of the school) to the principal's broader vision in concrete terms. The literature and the case study suggest that a PLC needs strong leadership.

These include:

- a visionary principal who serves as a role model and steward;
- a commitment to involve and empower teachers in decision making responsibilities;
and
- the necessity of negotiating a vision that staff understand and share.

At the same time, the study illustrated struggles and concerns of staff members who are committed to learning and changing.

These include:

- assistance with learning to share different opinions and learning to give and receive constructive criticism; and
- the importance of discussions about the relationship of the school's efforts and the broader reform vision.

Collegial Relationships

Various researchers (Gray et al., 1999; Harris & Chapman, 2002) have shown that there are certain internal preconditions to successful improvement. These include a focus on establishing relationships and a shared sense of purpose, the collective capacity of staff, and an emphasis on teaching and learning. Stoll and Fink (1996) argued that establishing relationships between teachers helps to extend their morale and encourages the development of a clear and shared sense of purpose, greater collaboration, and collective responsibility for student learning. Collegial relations and collective learning are at the core of building the capacity for school improvement. This implies a particular form of teacher development that extends teaching repertoires and engages teachers in changing their practice (Hopkins & Harris, 1997). Highly effective school improvement projects reflect a form of teacher development that concentrates on and goes beyond enhancing teaching skills, knowledge, and competency. It involves teachers in an exploration of different approaches to teaching and learning, often based on fundamental educational principles that are being introduced, revisited, or reviewed (Frost, 2003). In this study, teacher interviews revealed that the school provided opportunities for teachers' personal learning and development, mainly through seminars, working group meetings, and staff development meetings. However, what this study helped to bring out is that although teachers valued the organized meetings, they stated that when there was no designated authority or person who could bring out the various mental models of the group, problems were not really resolved. In this sense, group learning was slow or insignificant. As one teacher pointed out, "We discuss issues openly....However, we do find it hard at times to reach a compromise, especially when some members are adamant about their point of view, and are unwilling to see alternative viewpoints." The meetings surfaced interpersonal issues and differences, as well as decision-making issues. The difficulty of getting people to learn how to accept different opinions and to view reality in different ways is highlighted by the principal's comment, "Teachers and management need time to accept positive criticism, to learn that other people may hold different opinions and that we need to start opening up. Democratizing the decision making process is fraught with difficulties." Teachers thought group meetings helped empower them but they did not see sharing information as a way to improve their teaching and student learning.

As yet, teachers have not started to engage in matters that are ultimately central to school improvement. Given the sensitivity of engaging teachers to talk about how they teach, especially in a context of teacher isolation, it will take time to get to that stage.

Furthermore, teachers' sharing of students' work was limited to a short period of time that they spent with parents during Parents' Day. Not only was the use of data to inform practice a weak dimension, the working groups seemed to lack adequate techniques to resolve conflict and to overcome ingrained behaviors. The accumulation and generation of ideas, as well as sharing good practices among teachers, was limited to a few sessions throughout the academic year. Meetings with other teachers in the school or with teachers from other schools were practically nonexistent. The school still needed assistance toward two indicators of PLCs: PLCs constantly find ways of using the information they have to good effect, and they design strategies to ensure that all children are learning (DuFour, 2004).

This case study has helped to highlight particular points identified in the literature, specifically:

- establishing relationships seems to require time, practice, and assistance; and
- establishing relationships are fundamental to counter isolation and to improve curriculum and instruction.

At the same time, the study helps us appreciate that:

- direction and leadership are essential, especially in the initial stages of establishing PLCs;
- individual and group learning is a slow process.

Collective Capacity

Schools that improve become learning communities that generate the capacity and capability to sustain that improvement. They are “communities of practice” (Sergiovanni, 2000, p. 140) that provide a context for collaboration and the generation of shared meaning.

“Such communities hold the key to transformation—the kind that has real effects on people’s lives” (Wenger, 1998, p. 85). It follows that schools can sustain improvement through capacity building and equipping teachers to lead innovation and development. The message is unequivocal: sustaining the impact of improvement requires the leadership capability of many rather than of few, and improvements in learning are more likely to be achieved when leadership is instructionally focused on teaching and learning. It also implies that initiatives are undertaken in a systematic and sustainable manner within the school setting. Therefore, rather than being a reform initiative, a PLC becomes the supporting structure for schools to continuously transform themselves through their own internal capacity (Crowther, Kaagan, Ferguson & Hann, 2002; Wald & Castleberry, 2000). It occurs every day in activities such as sharing of good practices and model lessons, cross-disciplinary teaching, cross-grade activities, and sharing of subject matter expertise. DuFour (2004) encouraged schools to reflect on their collective capacity to address the learning needs of students. He concluded that ongoing improvement efforts can succeed only when a community of colleagues supports each other through the inevitable difficulties associated with school reform. The major challenge in certain schools will be that of breaking the norm of teaching in isolation. When working alone, teachers get used to certain patterns of learning, teaching, assimilating, changing, or retaining the status quo. Changing norms and patterns of thinking and behaving within the workplace may be neither easy nor welcomed by all. Nevertheless, “as in many other professions, the commitment to critical and systematic reflection on practice as a basis for individual and collective development is at the heart of what it means to be a professional teacher” (MacBeath, 1988, p. 9). One powerful way that teachers are encouraged to reflect on and improve their practice is through a process of inquiry, by which they can consider their work in a critical way. Collective inquiry can be further strengthened through more democratic forms of governance. In schools where isolation has been the norm, individual and collective reflection or inquiry is unlikely to occur unless teachers and principals strengthen human relations that have previously remained at only a congenial and superficial level. Without this awareness, teachers and the SMT of the secondary school in Malta wanted to realign school development and school improvement with the way humans relate and interact with each other.

They expressed concern that schools, in general, have become too mechanical and that interactions have never been humanized. Some of their suggestions for achieving that goal included sharing power and giving opportunities for all staff members to make decisions and own the choices they make, and allowing all school members to be involved in defining the purpose of the school and the culture the school community will uphold.

The literature and the case study suggest that:

- collective capacity includes the encouragement and nurturing of reflection and inquiry as well as individual and collective growth;
- sustained improvement requires collective effort; and
- an insular way of thinking and working require time, patience, and commitment to overcome.

A Focus on Teaching and Learning

Schools that are successful facilitate the learning of their teachers and their students (Harris, 2002). The quality of professional development and adult learning consequently becomes an essential component of successful school improvement interventions and is a hallmark of professional learning communities. Teachers' knowledge of subject matter and pedagogical skills and strategies is vital if students are to learn well. But teachers are, first and foremost, persons, and are therefore influenced by their own personal lives, their own well being, their personal views or beliefs about teaching and learning, and the life chances they create. This, in itself, makes the issue more complex and difficult to unravel, let alone manage. A major issue in helping teachers learn involves identifying time for collaboration throughout the school year. The Maltese principal and teachers commented that they were dedicating more time than before on meetings to discuss whole-school matters and curriculum issues. They were concerned, however, that they could not manage their time or structure time according to their needs, given that they had to work within the confines of national teachers' union directives. Moreover, the principal complained that she was currently not involved in curriculum matters and only administratively involved in overseeing the teaching process. She intuited that teachers were not yet engaged in the crucial domain of "ensuring that students learn ... [by] focusing on results" (DuFour, 2004, p. 10).

Yet, unless schools discuss areas pertinent to student learning, they fail to address the main reason for a school's existence— being there for the children. The literature consistently shows that PLCs focus efforts on improving the teaching and learning process.

However, this study suggests that:

- although leadership is necessary to get staff to focus on teaching and learning, teachers may not see the principal as the curriculum or instructional leader of the school; and
- whereas time is a perennial issue for individual and collaborative teacher learning and collective decision making, personal beliefs and well-being, as well as group process skills, may play as important a role as professional knowledge and skills in changing teaching and learning in schools.

What Have We Learned About PLCs?

The experiences of the secondary school in Malta may help change agents in other countries appreciate the challenges that schools may face as they work toward establishing themselves as PLCs within a context of devolved authority to the school site. The study may also provide a number of lessons for understanding areas requiring support and establishing assistance to develop those areas. The following list presents the Maltese learning outcomes to date. Perhaps one of the most notable outcomes is the length of time staff may need to change beliefs and behaviors.

1. The school's main strengths have been identified (i.e., learning dynamics and organizational transformation).
2. The school's main weaknesses have been identified (i.e., technology and its use, people empowerment, and knowledge management).
3. The principal is learning to take on the role of designer, teacher, and steward.

4. New learning patterns based on trust, commitment, and willingness to share are being established.
5. The principal is learning to involve others in the decision-making process.
6. The principal has difficulty changing own leadership style and encouraging staff members to challenge their own as they work more cooperatively and collaboratively.
7. Isolation and dependency are being challenged, but this is a slow process.

Clearly, a process of developing a PLC can exert considerable pressure on all individuals, and particularly those in leadership roles. In the Maltese case, the principal found the growing complexity of the work daunting and demanding, yet she understood that a leader's hard work, modeling, and personal commitment to a worthy cause can have a positive and motivating effect on colleagues. On the other hand, engaging in the process of becoming a PLC allowed her and the SMT to develop individually and collectively as they began to learn how to relate to others in new ways, how to communicate better, and how to distribute decision making and leadership tasks. As identified in the literature, the school principal as leader has a central role to play in nurturing the internal conditions for developing a school into a PLC. This study suggests that the principal, together with the SMT, faced major challenges at a number of levels: the personal, the psychological, and the professional. The principal realized she had to express a genuine commitment to learning if she wanted to instill the enthusiasm and build the morale of the staff. She also realized that nurturing a culture of respect in a context of dependency and isolation is psychologically demanding. The SMT expressed the sense of isolation members felt and the need for educators at the system level to provide them with the support and encouragement necessary to take their school forward. Schools need help to develop and to sustain enthusiasm. The Maltese case suggests that for a school faculty to develop personally and collegially, individual and organizational commitment is necessary. Within the school, the principal can help structure the organization in ways that nurture learning opportunities. In the Maltese school, the principal and SMT are encouraging individual and organizational learning by providing teamwork opportunities to focus on educational principles, to reflect on issues the faculty identifies, and to open channels of communication. As the teachers discovered, forging new and unfamiliar kinds of collegial relationships is challenging even when a group or organization is willing to pursue group initiatives.

Empowerment may initially be exhilarating, but group decisions take longer than unilateral decisions, and discussions may create conflict. The Maltese school has already identified that it lacks adequate techniques to resolve conflicting and ingrained attitudes and norms. The teachers are still unable to think beyond their own subject area or classroom, so they find whole-school issues difficult to tackle.

Pertinent information is often lacking or limited to specific individuals, and disseminating information is proving difficult. Nevertheless, opportunities for people to grow beyond their current practices are slowly challenging present mindsets. What the Maltese experience also seems to suggest is that teachers appear to need strong leadership to examine the teaching and learning process in their school. Principals, traditionally and perhaps unrealistically, have been expected to provide curricular and instructional leadership, but teacher-leaders may be in a more logical position to take on this role. Principals are assuming more and more administrative and management duties and finding themselves in the paradoxical situation of either wanting to, or being asked to, assume more responsibilities regarding school affairs, but at the same time having limited time to help teachers.

Cardno and Collett (2003) have suggested that principals might resolve this dilemma in a more

indirect and strategic way by distributing and delegating leadership tasks. Finally, the Maltese experience exposed the importance of learning at every level: individual, group (SMT), and organizational. PLCs change “people’s habitual ways of talking and thinking” (Senge et al., 2000, p. 76) and require people’s routine ways of interacting to mature to a more professional level. On the other hand, PLCs offer opportunities for principals and teachers to discuss and change teaching and learning, to learn conflict resolution, and to assume leadership opportunities and responsibilities. Above all, schools need time and support to learn together as they pursue the road less traveled.

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Section III

LEADERSHIP, TEACHER AGENCY AND PROFESSIONAL LEARNING

Educating through Communities of Practice.

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Abstract

The aim of this paper is an attempt at building a bridge between education and situated learning. The etymology of the word education outlines the two major ways of envisioning education. The meaning which we give to the term 'education' surely influences the ways in which the process of education unfolds and is actually conducted. The constructivist approach which is being used in education today is characterised by its studentcentredness rather than teachercentredness. Schools as Communities of Practice are a forum where education as bringing forth from the student (e-ducere) and the constructivist approach can be exercised. Communities of practice create the right condition for situated learning in Catholic schools today. It is here that legitimate peripheral participation can be put into practice, thus fulfilling the Church's mission of evangelisation in our contemporary culture by drawing students from the periphery of the educational endeavour, making them active participants at the core.

Keywords: Catholic schools, communities of practice, constructivist approach, education, situated learning.

In our rapid day-to-day endeavours, trying to do as much as possible, but at times chasing the wind, "It's not a bad idea to occasionally spend a little time thinking about things you take for granted. Plain everyday things" (Davis, 2009).

This holds even more true to words and terms which we encounter every day, and which are so basic and fundamental to either our living together or to our working together. Things taken for granted may mean that we neglect issues and nuances contained within them and which can make a world of difference in both our daily tasks and in the lives of other people. This is even more true for terms such as 'education' which not only influences the way in which we as educators envision our educational mission, but also and much more important is the fact that the way in which we think about education has a lasting effect on those who are at the receiving end of the process.

What is 'education'?

Education in a general way refers to the promotion and to the consolidation of the human person with the specific aim of helping the individual to live a free, conscious and responsible life in

relation to others and to the created world (Nanni, 2008, p. 369). However, when we delve deeper down into the etymology of the word 'education' we encounter a first hurdle. Nobody is definitely sure about the real and proper roots of the word 'education'. One thing is for sure: the root of the word 'education' is coming from the Latin language. However, there are two nuances to the root of the word 'education'.

The first meaning is that it is a derivative of the Latin word *educare*, which refers to the process of providing nutrition to something or someone, to the process of breeding or cultivating. In this sense, education is more linked to organic processes such as growing, helping, taking hygienic care of something or someone (Nanni, 2008, p. 369). This way of understanding education constitutes the classical model of education where the contents were of utmost important, since what was absolutely necessary in education was the imparting of knowledge and skills which to the teacher had an intrinsic value. These contents were then presented to the student in an objective, clear and systematic way, in a specific order which was not influenced or based on the interests and the needs of the student. The teacher was considered as an expert and as a role model, while the student was an entirely passive recipient of the monologue (Pellerey, 1999, pp. 136-137; Pellerey & Grządziel, 2011, pp. 158-159).

The second meaning of the term education may be coming from the Latin word *educere* (e-ducere), which literally means to draw out or to help someone or something to develop. In this sense, education refers more to a type of help which is offered to promote the interlocutor from an intellectual, emotional and relational point of view. It is aimed at helping the human being to use the gift of human reasoning and critical thinking (Nanni, 2008, p. 369). This meaning of the term education is linked to the interactional model of education. In this model, the teacher is responsible for creating a learning community, based on dialogue and interdependence in the class. In this model, the teacher is not seen as a person on a pedestal, but as a human being who has a more mature experience, through which the students can be stimulated and oriented to move forward and to get to know more about their capabilities. This outlook helps students to become more aware of their human dignity as persons, to make personal choices and to live their life accordingly. In this sense, education constitutes a process of rendering the human being more humane through a process of liberation and consciousness (Pellerey, 1999, pp. 139-140; Pellerey & Grządziel, 2011, pp. 161-162).

This second meaning of the term 'education' is more in line with the contemporary holistic approach adopted in education today. In line with this vision, the human person is not simply considered as an empty bottle which teachers and educators are called to fill up with knowledge or information – something which is synonymous with the meaning of *educare*. On the other hand, considering education as *educere*, we will be taking into account the potentialities of the human being who can come to know things with the help of significant others.

This notion of education as bringing forth or helping the student to discover and bring to the light the hidden qualities and potentialities is in line with what the Soviet psychologist Lev Vygotsky (1896-1934) had referred to as the zone of proximal development when speaking about the education of children and adolescents. The zone of proximal development is made up of a lower limit and an upper limit. The lower limit refers to those tasks and to that knowledge which the person can come to know by one's own proper self. The upper limit constitutes that which can be achieved with the help of a mentor (Vygotsky, 1978, pp. 84-91; Santrock, 2013, pp. 26-27, 263-267; Santrock, 2009, pp. 30, 101-102; Steinberg, 2010, p. 77; Arnett and Hughes, 2012, pp. 121-122). In our case, the mentor would be the teacher who will help the student to discover hidden

potentialities and capabilities. The idea behind the concept of the zone of proximal development is linked to the notion of scaffolding. Scaffolding refers to the level of support offered to a person during the learning process. It is linked to the depth and difficulty used by the teacher with particular students, differentiating between gifted students and other students who require more time and help to learn something (Santrock, 2013, pp. 222-224, 264-266; Steinberg, 2010, p. 77; Arnett & Hughes, 2012, pp. 121-122).

The Constructivist Classroom

The Constructivist Approach applied to education is in line with this way of considering education as the process of leading students to discover their real self by helping them to discover their potentialities. In fact, it is also known as the student-centred approach. It needs to be considered in juxtaposition to the teacher-centred approach, which is more in line with considering education as the simple imparting of knowledge to the students. The latter approach leads to looking at the process of education as indoctrination. The first consideration when speaking about the constructivist or student-centred approach is that constructivism is not a pedagogy, but a theory which attempts at explaining how learning is possible, and which ultimately fosters critical thinking in the students and creates more motivated and independent learners.

The differences between the teacher-centred approach and the student centred approach are neither minor, nor insignificant. In the teacher-centred approach, the primary importance is given to achieving the goals which the teacher has set, while the interest of the students is not given any importance. The teacher simply hands out facts to the students, and the students do not need to worry that they are missing out on some important fact. This means that all the student has to do is to listen and to memorise (Which is Best: Teacher-Centered or Student Centered Education, 2012). The student-centred approach or constructivist approach focusses mainly on the needs and interests of the students. In this sense, students are more in control of what they learn, thus becoming protagonists in their own education. This also gives way to more hands on activity which promotes higher order thinking and active roles. In the constructivist classroom, students have more freedom to choose those activities which interest them and which suit them most in their learning style, thus allowing for complementary learning styles to co-exist in the learning process. Moreover, the student-centred approach produces greater long-term positive results due to the fact that teachers become facilitators whose ultimate role is to provide structure and order in the class while allowing students to explore their own potentials (Brooks & Brooks, 1993, pp. 46-84; Which is Best: Teacher-Centered or Student Centered Education, 2012; Sue, n.d.; Murphy, 2015). This produces an environment which is open, dynamic, respectful and trusting while respecting different learning styles.

The point of departure for considering whether the constructive approach is the best approach for education is by asking oneself about how one learns best. Is it by listening to somebody speaking about a particular theme, or is it by embarking on a process of discovering things for oneself with the mentorship of a teacher? It is surely the latter. This puts the constructive approach at a definite advantage to the teacher-centred approach. Through the constructivist approach, learning is an active process through which the student creates meaning from different experiences. Students learn best when they attempt at giving sense to something on their own, with the teacher simply acting as a guide to help and to support them along the way (Brooks & Brooks, 1993, pp. 4-5; Teaching with the Constructivist Learning Theory, n.d.).

The student-centred classroom and the teacher-centred classroom differ from each other in that when the constructivist approach is used, the students interact with their teacher while being

immersed in experiences within which they engage in enquiry, imagination, action and personal reflection. This gives more space to group work and to learning as a group through interaction. All this demonstrates that the emphasis is more on the student rather than on the teacher who is teaching. This involvement of the students in their learning process encourages them to be responsible and autonomous, whilst at the same time rendering the classroom environment more democratic (Brooks & Brooks, 1993, pp. 15-22). In practice, this is achieved by presenting multiple perspectives and representations which include both contents and concepts, which are aimed at facilitating the achievement of the objectives. These objectives are not set by the teacher but arrived at through a process of negotiation between the students and the teacher. The activities used for learning are all aimed at encouraging meta-cognition, self-analysis, self-regulation and self-reflection. These call for higher-order thinking and problem solving skills (Murphy, 2015).

The role of the teacher in all this active process of instruction is to facilitate through modelling, coaching and scaffolding. In this sense, the teacher is not simply seen as an expert who knows it all. The teacher assumes the role of a researcher along with the students by being able to incorporate the syllabus creatively and in a flexible way to the needs of the students. The learning situations, the classroom environment, skills, content and tasks used in a constructivist class need to be relevant, realistic, authentic and represent the natural complexities of the real world (Murphy, 2015). At times this merely signifies that the teacher provides experiences for the students to study, reflect upon, manipulate, pose questions to, and investigate. Thus, the student-centred teacher elicits knowledge rather than just simply gives it to students. A pre-requisite for this type of classroom is dialogue as opposed to the monologue classroom of a teacher-centred approach (Brooks & Brooks, 1993, pp. 12-22).

The student-centred approach does not do away with the student's previous knowledge, but attempts at using it as leverage to thrust the student into constructing new knowledge. On the other hand, errors committed by the student during the journey in search of knowledge constitute an opportunity for insight into further inquiry and exploration.

This provides students with a form of apprenticeship in which they experience increasing complexity in the tasks, skills and knowledge which they attempt at grasping in an interdisciplinary manner (Murphy, 2015). It is here that the concept of 'scaffolding' comes to the fore-front. The scaffolding technique has been adopted in education from the civil engineering domain. In civil engineering, scaffolding is used to surround any structure which is being constructed and which is rising high towards the sky. Scaffolding makes it easier for builders to climb around the structure and to continue constructing at the top until the desired height is reached. In education, scaffolding refers to the variety of teaching resources and techniques which teachers use to progressively guide students towards a better grasp of their subject. When using scaffolding techniques, teachers are promoting greater independence during the learning process by offering successive levels of support which help students to acquire more knowledge and skills that they would not be able to achieve by themselves. Like scaffoldings used in civil engineering and which are then removed once the structure can stand alone, even in education, scaffolding provides support to students while they need it. Once they can work things out on their own, the scaffolding can be safely removed, thus handing on the responsibility to the student (Scaffolding, 2015). This helps students to attempt at going just beyond their limits. This recalls Lev Vygotsky's zone of proximal development (Murphy, 2015).

Catholic Education

The discussion on education which has emerged thus far demonstrates the benefits of considering

education as bringing forth, thus adopting a student-centred or constructivist approach. At this point, a natural question arises: How can all this be implemented in Catholic education? Is it possible to practice this in Catholic schools? We must start by acknowledging that “Evangelizing is in fact the grace and vocation proper to the Church, her deepest identity. She exists in order to evangelize, that is to say, in order to preach and teach, to be the channel of the gift of grace...” (Paul VI, 1975, p. 14; Congregation for the Clergy, 1997, p. 46). This evangelizing mission of the Church constitutes the fulfilment of Christ’s mission to go and make disciples through teaching (Mk 16, 15).

Evangelisation is a complex process and if we try to capture its length and breath, we would be impoverishing it. In fact, evangelization entails a number of varied elements, amongst which we find witness, proclamation, initiation into the Christian community, and missionary initiatives (Paul VI, 1975, p. 24). There are several ways in which these elements of evangelisation can be put into practice through the endeavours of a number of institutions. One of these institutions is the Catholic school. The primary aim of the Catholic school is to impart a Catholic education through all of its activities and not just through Religious Education.

Catholic schools can be sources of evangelization through the three specific functions for which they exist, that is, to:

- develop in the school community an atmosphere animated by a spirit of liberty and charity;
- enable young people, while developing their own personality, to grow at the same time in that new life which has been given them in baptism;
- orientate the whole of human culture to the message of salvation (Congregation for the Clergy, 1997, p. 259).

The Church can never relinquish or neglect its evangelising mission through Catholic schools (Congregation for Catholic Education, 1988, p. 33; Congregation for Catholic Education, 1997, p. 3).

Although Catholic schools can be found in a variety of local and national situations and circumstances, still, when one delves deep into their ethos, one finds that they are founded on the same basic principles: the values found in the Gospels. Notwithstanding the fact that all Catholic schools are based on the values found in the Gospels, they also share one common feature: they abide with the basic requisites for school curricula while at the same time, sustaining and promoting a Catholic ethos. It is exactly this that makes Catholic schools prototypes of education understood as *educere*, that is, as bringing forth and as helping the students to realise who they actually are, and what they are called to be.

The main aim of Catholic schools, besides that of promoting the intellectual development of the students, is to help them to get to know who they actually are: human beings created in the image and likeness of God and called to be his sons and daughters. This is what undergirds Catholic education in Catholic schools (Congregation for Catholic Education, 1988, pp. 1, 6, 34, 98-101; Congregation for Catholic Education, 1997, pp. 4-5, 8-10; Congregation for Catholic Education, 2007, p. 13). Still, one needs to be careful not to render Catholic schools as schools for indoctrination in the faith.

The temptation for Catholic schools to become fortresses where students become indoctrinated in the Catholic faith is not a remote consideration. School management teams in schools need to be

constantly aware of this, and beware not to fall in the pitfall of rendering their schools unbalanced by negating a holistic education to all students. Catholic schools are called to give a balanced education to all students through a Catholic ethos, while not neglecting the other dimensions of human development: physical, social, moral, emotional and intellectual (Congregation for Catholic Education, 1988, pp. 1, 19).

The fact that Catholic schools are called to impart a holistic education to their students through their Catholic ethos does not preclude them from using student-centred approaches; it is indeed an asset. Catholic education can be also effective on the curricular level by adopting a student-centred approach to education based on the constructivist approach. This means that the education given in Catholic schools, based on the concept of education as 'educere' will value the uniqueness of each student. Each and every student has good qualities and interests which render the process of education more effective for the student concerned.

Education in Catholic schools is not called to be a monologue but a dialogue between teachers and students, where what the student has to say is important and valid in the process of education. This implies that catholic education does not produce clones of students who are perfectly identical to each other, but it aims at targeting the needs and the interests of each and every student, aiming at involving all students in the process of their education, thus motivating them to see and consider whatever they learn in the context of the Catholic ethos of the school, and of the Catholic faith in general (Congregation for Catholic Education, 1988, pp. 63, 101; Congregation for Catholic Education, 1997, pp. 1, 19; Congregation for Catholic Education, 2007, p. 2).

Developing Catholic Schools into Communities of Practice

When teachers and the administration of a Catholic school strive to give a holistic Catholic education in their schools using student-centred approaches to education, one possible end-result is the formation of communities of practice within the school. The notion of a community of practice emerges from business related contexts and contexts of entrepreneurship. The whole idea behind communities of practice arose when different professionals working on the same product, but considering it from different points of view, found it easier and quicker to meet and discuss issues together rather than working on their own and then sending the product back to the drawing board when things did not match or fit (Wenger, McDermott & Snyder, 2002, pp. 1-4). As time went by, communities of practice started to be considered as "groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis" (Wenger, McDermott & Snyder, 2002, p. 4; Lave and Wenger, 1991, pp. 99-100). Communities of practice can take several forms: big or small, long-lived or short-lived, collocated or distributed, homogenous or heterogeneous, limited to particular boundaries or going beyond definite boundaries, planned or spontaneous, and institutionalised or non-institutionalised (Wenger, McDermott & Snyder, 2002, pp. 24-27).

People in communities of practice do not necessarily encounter each other every day but they meet on a regular basis. These meetings give them a lot of meaning in life together with the possibility of sharing information, insights and advice. Over time, in these meeting they will then develop a body of knowledge and of practices and approaches to the things that they do in life. In other words, they develop a sense of belonging and of identity. Although originally communities of practice came into existence because they provided a way in which knowledge could be shared, they also help the individuals concerned in putting that knowledge into practice, and of living it if it is on a moral level. Members of the community of practice become a living repository for the knowledge acquired (Wenger, McDermott & Snyder, 2002, pp. 4-5, 9).

Communities of practice offer the right environment for legitimate peripheral participation by creating a context where situated learning can take place. Situated learning does not simply refer to learning in a particular context, in our case the Catholic school. It refers to a deeper notion of education which implies and considers the entire human being during the process of education, thus being automatically holistic and comprehensive. In situated learning, it is not the body of knowledge made up of facts which stands at the centre of the educational process, but the human being as an agent in a mutual relationship with the world and all its activity (Lave & Wenger, 1991, p. 33). This is even more applicable to Catholic schools where all education is given from a Catholic perspective according to the Catholic ethos from which these schools take their actual name and characteristic. Moreover, Catholic schools through the situated learning environment which they provide to students, cater for legitimate peripheral participation.

Legitimate peripheral participation refers to the inclusion of people who do not form part of a group through a process of a step-by-step induction into the group, and into the beliefs and ways of practice of the community. This is indeed very close to the process of Christian Initiation. In the context of the Catholic school, students are slowly immersed into the Catholic ethos of the school through various curricular and extra-curricular activities. Moreover, all of these activities need to be considered not only as activities in themselves, but also in the student-centred approach adopted in their accomplishment.

“Legitimate peripheral participation” provides a way to speak about relations between newcomers and old-timers, and about activities, identities, artefacts, and communities of practice. A person’s intentions to learn are engaged and the meaning of learning is configured through the process of becoming a full participant in a sociocultural practice. This social process includes, indeed it subsumes, the learning of knowledgeable skills (Lave & Wenger, 1991, p. 29).

In any community of practice, there are three strata of participants: the core participants, the active participants and the peripheral participants. The core participants are the small group (usually 10% to 15%) who hold key places in the community of practice, lead the group and may be also the leaders of the community of practice. At a more outer level, we find the active participants (usually 15% to 20%) who are interested in the community of practice and take active roles in the community. The outer most level is the level of the peripheral group, which constitutes the majority of the community of practice. The members of this group usually keep to the side-lines, watching and observing, but rarely take on an active role in the community of practice (Wenger, McDermott & Snyder, 2002, pp. 100-101).

This is also the case in Catholic schools, where we may have students coming from various strata of Catholicism. In a Catholic school, one can find a mixture of students coming from a range of families, varying from practicing families at one end to non-practicing families at the other extreme. This means that in a Catholic school, we may have students who are more-engaged or less-engaged in the Catholic ethos of the school. Moreover, since students are coming from different levels of families of practicing or non-practicing Catholics, we have the gradual mixture of students who feel at the centre and students who consider themselves on the periphery. One hopes that this natural mixing leads to the gradual insertion of those who are on the periphery into the centre. Participation is a foundational characteristic and a constitutive element which needs to be augmented through the Catholic ethos of the school, thus gradually inserting the student deeper into the community of practice, which in this case is the Catholic school. Thus, the Catholic school becomes an opening and a way of helping students who are at the periphery

to gain access to active and practicing Catholics and eventually become active and practicing Catholics themselves (Lave & Wenger, 1991, p. 37).

In considering communities of practice with their characteristic for enabling legitimate peripheral participation as a means to impart a Catholic education in Catholic schools, we need to be careful not to consider legitimate peripheral participation as a pedagogy in itself. It is only a way of understanding the dynamics of education which helps the student to move from being a simple spectator to becoming an active participant:

We should emphasize, therefore, that legitimate peripheral participation is not itself an educational form, much less a pedagogical strategy or a teaching technique. It is an analytical viewpoint on learning, a way of understanding learning.....learning through legitimate peripheral participation takes place no matter which educational form provides a context for learning, or whether there is any intentional educational form at all (Lave & Wenger, 1991, p. 40).

The notion of students who may be standing at the periphery, or at the core, or somewhere in between, is in line with the student-centred or constructivist approach, and with the Catholic ethos of Catholic schools. One must never forget that the main aim of the Catholic school is to impart a Catholic education, which leads students to acknowledge their status as human beings created in the image and likeness of God, and thus called to divine filiation. Communities of practice from their very nature promote the student-centred approach, while at the same time considering education as helping the student to develop latent potentialities. The student-centred approach is possible through communities of practice where legitimate peripheral participation is practiced only when education is seen by teachers as the process of helping students to develop their potentialities, and not as the internalisation and possession of knowledge by the student. In communities of practice, learning takes place in view of the holistic development of the students and of their relation to the world. In this sense, education is seen as the strengthening of a number of relations with others and with oneself, thus also implying becoming a full participant or member of a social or a faith-based community.

Education in a community of practice is therefore characterised by a constantly evolving form of membership, rather than a condition for membership (Lave & Wenger, 1991, pp. 49-53). Legitimate peripheral *participation* in Catholic schools therefore “crucially involves participation as a way of learning – of both absorbing and being absorbed in – the ‘culture of practice.’ An extended period of legitimate peripherality provides learners with opportunities to make the culture of practice theirs” (Lave and Wenger, 1991, p. 95). This is in contraposition to education as mere handing on of knowledge using a teacher-centred approach which does not even attempt at linking that knowledge with the student’s experience and the world in which the student lives (Lave & Wenger, 1991, p. 47).

The role of the teacher in enabling legitimate peripheral participation in Catholic schools is not marginal. Students are struck not so much with the novelty of what they are discovering, as with the witness, or modelling which teachers provide in their contact with students. Enabling students on the periphery to become active or core students to the community of practice requires teachers and educators who are mature in their outlook and practice as Catholics. The practice, guidance and sustenance of mature educators and teachers in Catholic schools provides the best type of apprenticeship required for students to become active participant in the community of practice which the Catholic ethos of their school promotes through all its activities (Lave & Wenger, 1991, p. 110).

Conclusion

Education as bringing forth knowledge which the student already possesses and as making the student aware of innate and invisible potentialities opens up a myriad of possibilities to the teacher or educator. One may start at the approach, which needs to be adopted, and which is in line with this vision of education. A teacher-centred approach is inadequate, since it does not exploit the potentialities of the student. On the other hand, a student-centred or constructivist approach provides the way forward for a holistic education that makes students aware of their intrinsic and latent qualities. Catholic schools are modern fora for evangelising future generations. The massive task of evangelisation can be accomplished by rendering our schools into special places where communities of practice based on the Catholic ethos of schools can be established and experienced. Communities of practice, on their behalf, constitute the right context for legitimate peripheral participation through situated learning. Through legitimate peripheral participation, students at the periphery of the Catholic faith will have the opportunity to mix with students who are at the core of the Catholic faith and who are therefore active and practicing Catholics. When the Catholic school provides the right context for such communities of practice, it is fulfilling the Church's mission of evangelisation of which it forms an active part.

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Section III

LEADERSHIP, TEACHER AGENCY AND PROFESSIONAL LEARNING

Learning to Enact Reform Practices: Understanding teachers' work within contrasting learning contexts.

James Calleja

Abstract

Teachers learn in different contexts. This paper reports on the learning experiences of a small group of Maltese secondary school teachers of mathematics as they engaged in a continuing professional development (CPD) programme, designed as part of a doctoral research study, aimed to support them in Learning to Teach Mathematics through Inquiry (LTMI). This chapter explores learning-on-the-job within their school context and learning-off-the-job within the community of practice (CoP) offered through LTMI. A qualitative design using thematic analysis was used to investigate teachers' views and experiences of learning both within the school and the CPD context. The data reported in this paper was taken from a focus group held with teachers at the end of the CPD programme, and three interviews held with the same teachers before, during and after their participation in LTMI. Findings reveal that, during the CPD course, teachers experienced two contrasting learning contexts: an individualistic school culture and a collaborative CoP culture. Within such learning cultures teachers voiced divergences between practice within the school which was isolated, individualistic and competitive with learning within the CoP being collaborative, supportive and empowering.

Keywords: Continuing professional development, teacher learning contexts, inquiry-based learning, community of practice, isolated practice.

Introduction

Research, both locally and internationally, carried out over the last three decades reveals the potential educational benefit of collegial communities for teachers as opposed to isolated practices (Bezzina & Camilleri, 2001; Coburn & Stein, 2006; Cochran Smith & Lytle, 1999; Little, 1990; Lotter, Yow & Peters, 2014; Watson, 2014). Moreover, research has shown that the social aspect of community is key towards teacher enactment of reform practices (Blignaut, 2008; Golding, 2017; Spillane, 1999). One way of moving away from isolation and towards more teacher collegiality is to offer professional development opportunities that provide teachers with ongoing engagement with colleagues within and/or across schools through participation in a community of practice. This paper investigates what works for teacher learning, looking into two opposing contexts: teacher isolation (within schools) and collegiality (within a CPD programme offered to them).

Community of practice (CoP), a term coined by Lave and Wenger (1991) in studying how practice

within a community enables the apprentice to move from peripheral to full participation, has been used broadly in research looking into teacher continuing professional learning (Coburn & Stein, 2006; McLaughlin & Talbert, 2001; Shabani, 2012). My interest in communities of practice arises from my work, initially as a head of department working with teachers within my school, and now as a teacher educator supporting lesson studies (see Lewis, Perry & Hurd, 2009; Stigler & Hiebert, 1999 for more details) and teachers' collaborative lesson research initiatives (see Calleja, 2017). Stemming from this work is my belief that Maltese teachers need and value experiences as participants in communities of practice (see Attard Tonna, Murphy and de Paor, 2017; Bezzina, 2006) in which they are afforded agency to experiment in reforming practices and strategies, with the support of colleagues (Attard, 2012; Putman & Borko, 2000; Stein, Smith & Silver, 1999). I strongly believe that community is a necessary feature in bringing about change, and that learning about teaching is fundamentally social (Spillane, 1999). This insight, experience and belief inspired and informed the design of LTMI (Learning to Teach Mathematics through Inquiry) – a CPD intervention to support teachers' enactment of inquiry practices.

Effective and productive professional development is conceptualised as a continuing long-term process (Loucks-Horsley et al., 2010) providing teachers with collaborative opportunities to design, implement, share, discuss and reflect (Guskey, 2002; Putman & Borko, 2000) in their journey to bring about the desired changes in classroom practice. LTMI was designed as a blended approach of summer workshops and follow-up meetings for secondary school teachers of mathematics to immerse themselves in and learn about inquiry. By drawing on seven case studies, this paper reports on the two opposing cultures emerging from the two contexts that teachers engaged in while learning to enact reform practices.

In the sections that follow I provide literature related to CPD and teachers' learning contexts. The current situation in Malta with regard to teacher professional development is then presented. Literature on inquiry learning and its importance for Malta are reviewed before moving onto outlining the study and the CPD programme design. The study methodology is then presented, followed by data analysis and key findings emerging from the qualitative data shared by seven participants. Finally, this paper provides suggestions for creating more collegial learning experiences for teachers.

Continuing Professional Development

Literature on CPD reveals a range of definitions. For the purpose of this paper, CPD encapsulates the personal and the professional learning of the teacher (Earley & Bubb, 2004), that is, "those processes and activities designed to enhance the professional knowledge, skills, and attitudes of educators so that they might in turn, improve the learning of students" (Guskey, 2000, p. 16). There is also widespread consensus that effective professional development depends on a number of critical factors (Guskey, 2000; Loucks-Horsley et al., 2010; Putman & Borko, 2000). According to Loucks-Horsley et al. (2010, p. 5):

It is directly aligned with student learning needs; is intensive, ongoing, and connected to practice; focuses on the teaching and learning of specific academic content; is connected to other school initiatives; provides time and opportunities for teachers to collaborate and build strong working relationships; and is continually monitored and evaluated.

Despite all that we know about what renders CPD effective, the challenges and barriers towards successful implementation are still to be addressed (Bubb and Earley, 2013; Guskey, 2002; Putman

and Borko, 2000) – both abroad and particularly in the local context. Locally, it seems that CPD providers (institutions and schools) still conceive teacher professional development as a one-off venture of off-site workshop training disconnected from practice (one that resonates with the isolated practice of teachers in schools), rather than an ongoing collaborative on-site experience of practice-oriented development and learning.

Research into CPD gives considerable insights to the impact that community plays within teachers' learning to teach and implement innovative practices (Barab, Barnett, & Squire, 2002). In particular, CPD taking the form of teacher learning community (Little, 1993; Watson, 2014) is considered appropriate to initiate, support and sustain teacher change. This social aspect of teacher learning highlights that teachers learn more effectively when they collaborate with others rather than when working in isolation (Levine & Marcus, 2010). CPD programmes may have a greater impact towards teacher learning, improved practices and changes in beliefs, when collaborative structures are central to the design.

Researchers interested in teacher professional communities have drawn on the community of practice (CoP) perspective (see Jaworski, 2006; Lave & Wenger, 1991; Wenger, 1998) – also referred to as learning communities (Attard, 2012) or professional learning communities (DuFour, 2004; Watson, 2014) – to explain the social processes shaping teacher learning. Communities of practice are dynamic with participants engaging in learning through “actions whose meaning they negotiate with one another” (Wenger, 1998, p. 73). Identities, of community participants, become shaped as they collaborate, share ideas, discuss and reflect upon their practices with others. This situated perspective of learning has been applied widely to teachers' learning to teach (Coburn & Stein, 2006; Jaworski, 2006; Lave & Wenger, 1991). In this study, LTMI was an intervention programme designed to bring in “a critically questioning attitude towards practice and knowledge-in-practice that allows critical reflection on the practice of teaching” (Jaworski, 2007, p. 1693).

Learning within the School Context

Introducing inquiry approaches to teaching into traditional classrooms requires teachers to make considerable changes in lesson planning, teaching and assessment. Inquiry teaching is not teaching done through a rehearsed lesson plan; it is not unidimensional and does not necessarily follow a particular structure; but it is rather complex and unpredictable (Towers, 2010). While teachers may face constraints external to them, such as curriculum and assessment practices, high-stakes examinations and a lack of resources, much of the difficulty they encounter also seems associated with collegiality, the school context and culture (Anderson, 2002; Maaß, Swan, & Aldorf, 2017). Maaß et al. (2017) infer that lack of collaboration with colleagues and support received from school administrations are limitations that may influence teachers' use and views of inquiry teaching. For example, Towers (2010) describes the counter dilemma of a teacher who withdrew from collaborative planning with his colleagues because he was unable to confidently describe his vision for inquiry. In order to safeguard his teaching approach, he opted out of this group. This teacher was in an uncomfortable position “caught between a vision for teaching through inquiry... and a system populated by veterans who value straight talking, ready and familiar answers, and tried and tested methodologies” (Towers, 2010, p. 257). School contexts and cultures, hence, play a key role.

Locally, Bezzina and Camilleri (2001, p. 164) insisted for a move towards creating a culture that “breaks the bonds of isolation... to one which involves teachers working together”. They had recommended instilling a culture of collaboration seen as a lifelong process that links to collegial

reflective practice and the engagement of professionals through discussion. However, some years later, Bezzina (2006) was still urging for this move and, it was not until recently that, this shift was recognised by the National Curriculum Framework (Ministry of Education and Employment, 2012) promoting school as learning communities. Yet, teachers still view their work and learning in schools as isolated practices (Attard Tonna & Calleja, 2010) due to a lack in adequate support structures.

In a cross-site analysis of school case-studies, Anderson (1996) had identified that teacher constraints, difficulties and dilemmas to enact reform practices can be grouped under three dimensions: the technical, political and cultural dimension. The technical matters include the limited ability to teach constructively, abandoning preferred teaching styles, challenges to use group work and the difficulties to adapt to new teacher and student roles. The political aspects include limited ongoing training, resistance from parents, lack of resources and syllabus constraints. The cultural dimension regards the beliefs and values about, for example, the role of textbook teaching and preparing students for examinations, views of assessment, teaching and learning (Chin & Lin, 2013; Maaß et al., 2017; Niemi, 2002; Priestley, 2010). Anderson (2002) claims that the cultural dimension potentially presents the biggest hurdle. For even if the technical aspect is addressed, changing beliefs and values, and preparing teachers for inquiry teaching requires an intervention that addresses the political and cultural context of the schools in which teachers work.

Learning within a Community of Practice

Situative theorists posit that learning occurs when knowledge is distributed within communities of practice (Lave & Wenger, 1991; Wenger, 1998). When diverse groups of teachers with different types of knowledge, experience and expertise come together, community members can draw upon and incorporate each other's expertise to create rich conversations and new insights into teaching and learning. Effective CPD programmes value distributed cognition, and hence that learning develops from and between participants (Lave, 1988), because each participant is assumed to bring distinctive knowledge and beliefs to a learning community. Through social interactions, teachers exchange knowledge about their students, the particular settings in which they teach, their teaching practices and their beliefs. In the process of engaging with such deliberations, teachers may develop both their knowledge about practice and experience change in their beliefs.

Researchers like Jaworski (2006), and more recently, Potari (2013), Skott (2013) and Goos (2014) studied teacher learning looking into the role of community and the context of teacher learning within educational settings. Jaworski (2006), for example, argues that inquiry is a fundamental theoretical principle in teacher learning. She extends community conceptualization adding two elements: *critical alignment* and *inquiry*. With the former, teachers are not just seen to align with practice as established by the community, but to look critically at that practice while aligning with it. Inquiry offers teachers the means to look critically. Teaching is seen as a social learning process of teachers engaging in inquiry as a mode of practice to develop their knowledge of practice.

Professional Development in Malta

Teacher professional development in Malta runs on a three-phase model: The University of Malta through the Faculty of Education, which is responsible for the preparation of prospective teachers; the Ministry for Education and Employment (MEDE) which, through the Institute for Education¹, caters for professional development through the provision of a variety of courses; and

¹ Established to provide continuing professional development courses to educators at all levels.

the University of Malta and other institutions which offer post-graduate courses for educators. CPD duration and format are established by MEDE through a collective agreement signed with the Malta Union of Teachers in December 2017, and changes may only be possible following new negotiations. CPD opportunities for teachers usually occur at school level, college or at a national level. Teachers in the independent sector may choose to attend this training, yet training is usually organised in-house (Attard Tonna & Calleja, 2010).

Recently, a number of initiatives have provided a more active, practice-based, collaborative and on-going approach to CPD as opposed to a more top-down approach that teachers are offered through obligatory INSET (In-Service Education and Training) courses. For example, the *Let Me Learn* programme (see Attard Tonna & Calleja, 2010), the *Pestalozzi Action Research* project (see Brown, Gauci, Pulis, Scerri & Vella, 2015), focused training for teachers teaching the core competences learning programmes in Mathematics, Maltese and English, and the *Promoting Inquiry in Mathematics and Science across Europe* (PRIMAS) project have offered opportunities for teachers to work in communities within and across schools. Indeed, CPD through a CoP approach first featured with the publication of the National Minimum Curriculum document (Ministry of Education, 1999). Yet, as Bezzina (2002, p. 65) noted, “the underlying feeling one gets is that the authorities may be assuming that it can just happen”. I believe that the development of supportive structures that enhance the ongoing professional growth of teachers is still being overlooked today and, as a result, the concept of creating and sustaining learning communities is generally missing in local schools (Attard Tonna & Calleja, 2010; Bezzina, 2006).

Inquiry in Teaching Mathematics and in CPD

Inquiry is a multifaceted activity (Maaß & Artigue, 2013) where notions of learner-centred, investigative, problem-oriented, collaborative and question-driven are generally associated to it (Goodchild, Fuglestad & Jaworski, 2013; Jaworski, 2006; Swan, 2006). In mathematics, teachers use inquiry to engage learners in thinking by selecting and enacting mathematical tasks that provide an “achievable challenge” (see Willis, 2010). Tasks with an achievable challenge require students to exert mental effort, but they also need to encourage creativity, decision-making and exploration.

Inquiry is also becoming more relevant in the Maltese education system and mathematics education (Ministry of Education, 2012). To address this, teachers play a key role in developing learners’ competences and in enabling them to nurture an inquiry stance to learning. Doing this necessitates that teachers develop skills and dispositions to support learners in becoming critical thinkers as well as responsible and active citizens. Teachers may achieve this by undertaking student-centred approaches, and research shows that inquiry is an effective way to support building such competences (see Towers, 2010). Through inquiry, learners create, innovate, collaborate, criticise, explore, communicate and make thoughtful decisions, hence developing key competences and skills crucial to their lives beyond school.

For teachers, using inquiry requires what Greeno (2006, p. 543) calls “knowing a conceptual domain”, that is, “knowing what resources are available in the domain, knowing where to find them, knowing how to use them, and anticipating the results of using them in different circumstances”. Knowing a conceptual domain like inquiry implies not just knowing what it means but also how it can be used with learners in different contexts. CPD is hence fundamental in offering teachers with context-related learning opportunities. By immersing participants in the process of inquiry, CPD may provide teachers with modelling experiences of inquiry teaching

(Farmer, Gerretson & Lassak, 2003). Moreover, CPD offers “opportunities for teachers to ponder pedagogical problems and their potential solutions through processes of reflection, knowledge sharing, and knowledge building” (Silver, Clark & Ghouseini, 2007, p. 262). For learning to occur, CPD is designed to offer teachers opportunities for ongoing collaborative negotiations about the use of inquiry in different classroom contexts.

The Study

The Learning to Teach Mathematics through Inquiry, designed as part of my doctoral research project, was intended to provide learning opportunities for teachers, over one scholastic year, to experience, integrate, reflect upon and develop their inquiry teaching practices. This CPD programme, offered to secondary school teachers of mathematics as a voluntary course, was driven and inspired by my experiences working with teachers and particularly by my passion for designing and leading teacher professional learning – both in my previous role as a head of department and, more recently, in my role as a teacher educator. For example, I engaged in leading teachers at my school in various collaborative projects, such as PRIMAS, the use of formative assessment task and lesson study. I also regularly contributed to professional development sessions in schools and during mathematics INSET. However, my role in LTMI was related exclusively to design. Those leading and facilitating discussions and activities within the CPD programme were teachers and teacher educators with experience in inquiry practices. My role during these sessions was that of a non-participant observer – collecting feedback to improve the programme in the piloting phase and gathering field notes and other data to study teacher learning during the main phase.

The CPD Programme

Learning to Teach Mathematics through Inquiry experiences for teachers were provided first through summer workshops, and then by participating in follow-up meetings held during the scholastic year (see Figure 1). The four summer workshops focused on four inquiry features: *mathematical tasks, collaborative learning, purposeful questioning, and student agency and responsibility*. Summer workshops followed a consistent pattern of activities – teachers first worked collaboratively to solve a mathematical task through inquiry, then discussed their experience working on the task and later watched a video from a local classroom demonstrating a teacher using the same task with students. Discussions alternated between pair, small-group and whole-class. Such discussions were intended as additional opportunities for teachers to further investigate teaching approaches, clarifying concepts and to problematize issues related to inquiry teaching. At the end of each workshop, teachers were encouraged to collaboratively plan a lesson using the activities presented and the ideas generated. The CPD materials are available online (see www.iblmaths.com).

Follow-up meetings were then intended to provide collaborative ongoing support for teachers to discuss, evaluate and develop practice-based learning. These meetings followed a structured set of activities led by a facilitator. The opening activity prompted participants to reflect on their inquiry practices. Teachers wrote reflections on sticky notes. Reflections included personal strategies for using inquiry, challenging situations encountered and classroom incidents. This was followed by reporting back and sharing of inquiry lessons and tasks. Finally, participants discussed and agreed upon an agenda for the following meeting. The facilitator’s role was that of a challenger and an intervener – asking questions to support, stimulate and enable participants’ thinking. Over time, this scaffolding was gradually removed to allow for increased teacher autonomy in learning about inquiry, but also to nurture a self-sustaining learning community (see Calleja, 2016 for a more detailed outline of the LTMI activities).

Figure 1. The LTMI programme

SUMMER CPD WORKSHOPS <i>Understanding inquiry-based learning</i>		FOLLOW-UP CPD MEETINGS <i>Reflecting on classroom practices</i>	
1 Session (4 hours)	3 Sessions (4 hours each)	Ten follow-up meetings (1¼ hours each)	
July 2015	September 2015	October 2015 to May 2016	

The Participants

Seven participants (2 males and 5 females) volunteered to contribute data to my research from a total of twelve participants (5 males and 7 females) joining the LTMI programme. Although I was working with a small number of participants, this sample still included a wide range of participant characteristics (see Figure 2). With this heterogeneous sample, I sought to identify common patterns that captured core learning experiences of the entire group. According to Patton (2002, p. 235), with a small sample of great diversity, data analysis would “yield important shared patterns that cut across cases and derive their significance from having emerged out of heterogeneity”.

The seven teachers taught mathematics in different secondary schools. There are two types of schools in Malta: state and non-state. State schools are governed by MEDE and operate within colleges consisting of a cluster of primary and secondary schools within particular catchment areas. There are ten of these colleges in Malta each of which is led by a head of college network. The non-state sector is subdivided into Church and independent Private schools. Church schools are predominantly Roman Catholic schools heavily subsidized by the government. Private schools are set up by individuals or non-profit parents’ foundations that, unlike the other schools, charge tuition fees.

Figure 2. Information about the participants

Teacher	School	Prior Knowledge of Inquiry	Teaching Experience (Years)	Year Group Taught
Sarah	State	Course	16 – 20	9
Janet	State	None	11 – 15	8
Tania	State	ITE	1 – 5	10
Greta	Church	Course	16 – 20	8
Colin	Church	ITE	1 – 5	9
Chris	Church	ITE	1 – 5	7
Jackie	Independent	None	16 – 20	10

Ethics approval for the research was granted by all these institutions and informed consent was then obtained from all participants and heads of school prior to conducting the research. The study adhered to the ethical principles of informed consent, confidentiality, anonymity and the right to withdraw. Pseudonyms are used to identify the participants in the study.

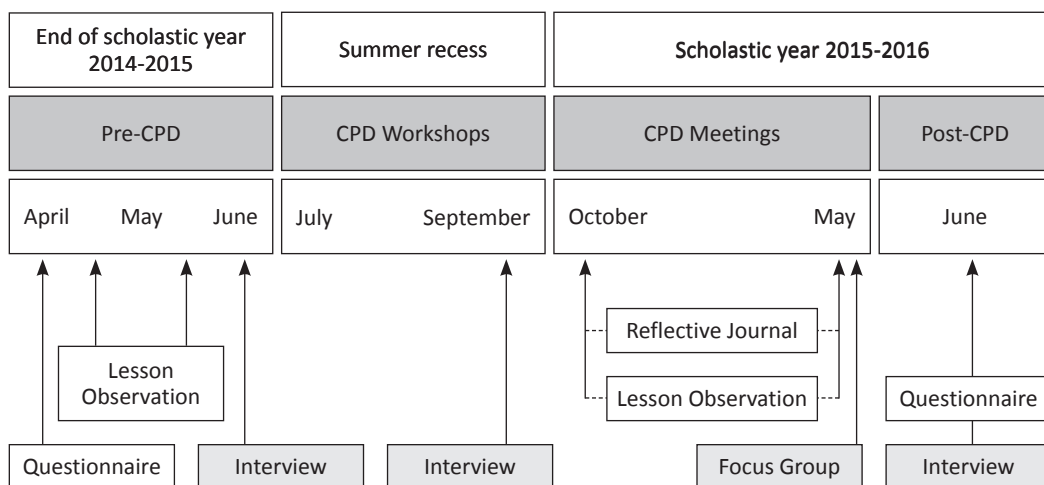
Methodology

This research was undertaken within a qualitative research paradigm with the underlying assumption that understanding of reality is embedded within a social construction (see Guba, 1990). A sound understanding of teacher learning would be gained by studying how teachers operate within the CoP created and cultivated by the CPD, and within their own work-based context.

A data-driven inductive approach (see Boyatzis, 1998) was employed to allow patterns, represented by the voices grounded in the data, to emerge from the ‘realities’ provided by the seven teachers. The goal was to understand multiple ‘realities’ across the various data sources from the teachers’ perspectives, their experiences and views of CPD.

As this was an in-depth study focusing on a small sample of teachers, qualitative methods were chosen to collect data. Five sources were used to gather data from the participants, namely: questionnaires, lesson observations, semi-structured interviews, teacher reflective journals, and a focus group. Figure 3 shows a timeline for collecting data during the study. For the purpose of specifically answering the research questions delineated in this paper, two of these data sources were used: semi-structured interviews and a focus group.

Figure 3. CPD programme timeline and data collection



Semi-structured interviews

The three semi-structured interviews conducted with the participants before, during and after teacher participation in CPD, focused on gathering data related to practices and knowledge about inquiry, and their experiences engaging in CPD. While the first interview addressed aspects linked to motivations for participation, views, practices and knowledge of inquiry, the second interview investigated what participants gained from participating in the CPD workshops, and what they intended to take into their classrooms. The third, and final, interview offered teachers a retrospective reflective analysis to describe potential challenges and learning experiences

encountered in their LTMI journey to make changes towards inquiry teaching. Each interview, which took between 40 to 50 minutes, was audio recorded and later transcribed verbatim.

Focus group

The focus group brought together the researcher and the seven participants to discuss their CPD learning experiences. The focus group participants were led through the discussion by the researcher, acting as a moderator, using questions as probes and prompts for participants to elicit experiences, meanings and insights into effective aspects of the CPD programme. The main advantage of using the focus group was that it offered an opportunity to observe participants as they engaged in discussion about attitudes, perceptions and experiences (Krueger & Casey, 2015) related to their immersion in the CPD programme offered. The focus group took 75 minutes and was video recorded. The video recording was later transcribed for analysis.

Data analysis

Data analysis was guided by a thematic approach to analysis and theory (see Braun & Clarke, 2006). Each interview and the focus group transcript were divided into chunks – usually short paragraphs of between 20 to 60 words – applying an open-ended coding technique to label comments and assign codes on the margin. Inductive coding (see Boyatzis, 1998) began with close reading of text and consideration of multiple meanings. Initial codes focused on significant statements, comments and actions that reflected teachers’ personal thoughts, understandings and learning opportunities emanating from their participation and engagement in CPD. Codes and comments were then compared and grouped to create themes. The findings reported here consider both unique cases of teachers and the shared learning experiences of the participants.

Findings

Teachers’ experiences working within school contexts

Teachers described their work in schools as dominated by individual practices. As reported in other local studies, it appears that in their respective schools, by and large, teachers work in a context of isolation (Attard Tonna & Shanks, 2017; Bezzina, 2006) particularly when it comes to planning, sharing and reflecting on classroom practices. Referring to the situation of schools in Malta, Bezzina (2002, p. 66) had echoed this experience that “teaching is still very much practised in isolation, and collegiality is non-existent for many teachers”. Teachers may be forced into isolation due to a number of reasons, namely: their teaching workload along with other duties (e.g.: supervision and form teacher duties), the lack of opportunities that the school offers for collaboration (Attard Tonna & Calleja, 2010), large school size and segregated staffrooms (Brown et al., 2015), and lack of structured slots in the timetable intended for collaborative work. Working in isolation may cause teachers to create barriers that then support an individualistic culture, with enactment of practices that are habitually private (Spillane, 1999).

It is motivating to keep contact with people who value inquiry, mainly because I have no-one to work with at my school. The fact that I have people whom to turn to when I have a difficulty, that is of support to me. (Janet: Interview 1, June 2015)

When discussing the support teachers find within their school contexts, teachers do not appear to consult colleagues when it comes to implementing active learning pedagogies. Hence, learning to teach becomes a sink-or-swim affair (Lortie, 1975). At the beginning of the scholastic year, all seven teachers described feeling in isolation within their context. Evidently, with their attempts to use inquiry, most of them anticipated that isolation would now perpetuate as their colleagues

preferred to adopt traditional approaches. Chris pointed out that he rarely spoke with colleagues to share ideas but mostly to discuss matters related to syllabus coverage and planning examination papers. Greta, for example, mentioned the competitive element that she feels related to covering the syllabus. She described work as a competitive race between colleagues in completing the exam syllabus. However, following the summer workshops, Greta was already seeing this CPD as providing new opportunities to engage in deliberations with other teachers.

This course provided me with insights on how I can approach teachers in the schools that I visit and how to speak about innovative classroom practices. Next year, I see myself offering tasks, those we worked on, and sharing them with teachers for discussion or to work on the tasks together as we did during the course. (Greta: Interview 2, October 2015)

Schools were encouraged to send pairs of teachers for the LTMI programme. Chris and another four mathematics teachers from his school attended the summer workshops and eventually, Alan (pseudonym), one of these teachers joined Chris for the follow-up meetings. In the case of Greta, one teacher from her school attended the summer workshops but did not continue with the follow-up meetings. In Sarah's case, no teacher from her school participated in the LTMI programme. For Sarah, being the only teacher implementing inquiry was demanding.

Here at school, I do not get support from other teachers because they do not use inquiry and so I had no one to turn to in case of difficulty. In the beginning, I blamed myself for engaging in this on my own. But I persisted and sought to do my best. (Sarah: Interview 3, June 2016)

The individualistic settings of Greta and Sarah, for enacting inquiry, offered restricted enactment possibilities compared to that of Chris. For Sarah, isolation offered a setback, and it was due to her persistence that she managed to overcome the challenges she faced. Albeit occasionally, Chris collaborated with Alan in a number of ways. There were occasions where they discussed inquiry tasks and lesson plans. On one particular occasion, Alan invited Chris to observe a lesson and provide him with feedback on his role and classroom management as students engaged with inquiry. On another occasion, Alan and Chris collaboratively planned a lesson which they both taught and then discussed outcomes during one of the follow-up meetings. These school-based conversations were not possible for neither Greta nor Sarah. Over the course of the programme, the collaboration with Alan potentially helped Chris in his LTMI journey. However, according to Chris, collegiality at school level remained missing.

The situation at school has remained the same. Most teachers have their own ideas and you become aware that your ideas would not be recognised. Sometimes, it feels like they are thinking that I am trying to introduce ideas that they would have to adapt to.... It feels like they are telling me to keep my ideas to myself because then they would be made to adopt them. So, in a subtle way, these experiences bring you to a point where you do not seek colleagues for help. (Chris: Interview 3, June 2016)

Following his participation in LTMI, Chris was not seeing possibilities of in-house support. The school was insular operating within a culture that seemed deeply-rooted in individualistic undertakings that, certainly, limited learning opportunities for teachers like Chris who sought to share his ideas, insights and attempts to transform his practices.

Teachers' views of their participation in a community of practice

Had it not been for these meetings I would surely have given up hope. The meetings helped me improve on the strategies I was using, getting tips from what was discussed here. Meeting others was for me crucial in persisting with inquiry. (Sarah: Focus Group Discussion, May 2016)

I start this section with Sarah's comments taken from the focus group discussion held with teachers at the end of LTMI. Sarah was encountering challenges in her enactment of inquiry. The class I was observing her teach seemed demanding in terms of attention and behaviour. Initially, Sarah had to resolve issues related to class control and organisation, which she managed to overcome. For Sarah, engagement with inquiry within the school context was characterised by isolation – no teacher used inquiry to teach mathematics and, hence, she could not seek any assistance there. She found this support in the CoP created within the CPD. Learning to teach within the CoP contrasted with that of school life, with qualities of collegiality emergent from the CoP based on the sharing of practices. Collegiality was indeed at the core of the CoP. The potential of collaborative learning within the CoP contradicted the 'modus operandi' within Maltese schools. For Chris, for instance, the CoP environment also afforded a particular kind of freedom.

We came to these meetings not because someone forced us to but because we wanted to. I think that made all the difference. I did this because I wanted to grow as a teacher and for my students to learn... and I think that gives you more motivation, the fact that it is something desirable for us to do. This course was something I wished to do. And if there was a time when I could not do as much, there was nothing wrong with that... so I was free... free from the control of having things imposed on me. (Chris: Focus Group Discussion, May 2016)

Chris spoke about the "control" that teachers seem to be under in their daily professional work. Chris contested the fact that teachers are not trusted by their superiors. According to Chris, it appeared that, for school administrations, it was not enough for teachers to teach 'good' lessons. Teachers are overwhelmed with preparation workload related to keeping and presenting schemes of work, detailed lesson plans and up-to-date assessment records. While these responsibilities are important, they appear to be taking most of the teachers' time; time that they could dedicate towards planning more reform-oriented lessons. But, more importantly, such an obligation is viewed by Chris as a sign of lack of trust. What Chris seems to be saying is that trust is essential in enabling him to reform his practices at his own pace, and without control and impositions.

It appears these teachers also looked forward to and be part of the CoP because they did not spend hours listening to a speaker, as was common in most of the INSET training courses. Within the CoP, teachers shared experiences, worked together and designed useful and relevant materials that they could apply to their particular classroom setting and students' learning needs. Meetings promoted active involvement where teachers collaboratively planned and reflected upon their lessons. Chris' account of this experience captures the importance of active learning and the common traits that emerged within the CoP.

I feel this was a course that didn't just speak about theory, although we did tackle that. This could have been a course delivered by experts and we just stood passively listening to them teaching us about inquiry. Instead, we got our hands

dirty, we found challenges and difficulties, we understood that the challenges we encountered were common to all and together we learned from that. (Chris: Focus Group Discussion, May 2016)

The benefits of being part of a community were recognised by teachers. Collegiality within the CoP was not valued simply because it offered opportunities for the sharing of experiences. Teachers listened to and provided their own reflections on each other's experiences whilst appreciating the diverse working contexts framing their respective work places.

Teachers also considered LTM as useful for their learning because, besides nurturing collegiality, the CoP created networking and a shared sense of belonging to a community that was missing within their school contexts. It seems that, for teachers, this feature of the CPD impacted positively on their learning in developing knowledge of inquiry, their practice and the changes they implemented. For these teachers, the community represented an opportunity to meet new people, work with teachers from different contexts that brought diverse perspectives, engage in reflective practice and find support from the community members. In their interviews, participants spoke about varied ways in which they benefitted from the participation in the CoP.

Experience: *I could see the perspectives of other teachers from outside the small school environment that I work in, and which sometimes makes me feel enclosed within my own self. (Jackie)*

Shared Concerns: *Besides the well-prepared content that we gained a lot from, but to feel that you are in the same boat as the others... that helps. It was one of the positive aspects of the PD. (Chris)*

Collaboration: *I saw it really useful when we planned lessons together because you get the ideas of all members in the group, that provides opportunities to share views because you would not have necessarily thought about these or used such ideas in your practices. I felt that this was always a learning experience because you start considering things that you would perhaps not have thought of before. (Sarah)*

Support: *I was motivated because I could meet people who value inquiry, mainly because I have no-one to work with at my school. The fact that I have people whom to turn to when I have a difficulty, that is of support to me. (Janet)*

Teachers mentioned aspects related to their sharing of experiences, discussing and addressing common challenges and finding support from colleagues who were *in the same boat*. Similar to the findings of the English project RECOME (see Back, et al, 2009), teachers reported that they valued opportunities to share and demonstrate their work. For most of the teachers, LTM was effective because of the co-learning opportunities generated by the CoP – learning with and from others. It seems that the CoP contributed significantly towards teachers' professional growth because of the opportunities teachers had in getting to know about the teaching methods of colleagues working in different contexts (see Butler et al., 2004; Putman & Borko, 2000). This appears to have provided them with confidence to persist and support in not giving up.

Teachers also valued the sharing of concerns and collaboration. Community served as a *support* group because teachers also shared ideas and engaged in collaborative reflections. This brought

about a common sense of identity and belonging that supported their professional learning about their inquiry practices (Potari, et al., 2010).

Engagement in communities of practice shaped the identity of teachers, that is, their self-perception of their own role, their agency and relationship with others (Wenger, 1998). Participation in the CoP brought about teacher learning with changing participation in social practices. Identities, as proposed by Wenger (1998), are not static entities, but are created and recreated through a process of accommodation (Peressini, et al., 2004). Through participation in communities of practice, teachers were enculturated into new ways of being and acting.

Discussion

This paper attempted to uncover the work and the kind of learning opportunities that arise for teachers both in the context of their workplace and within the CoP created by LTMI. It has taken the teachers' voice in developing an understanding of the type of learning in terms of their experiences and response to learning opportunities that these two contexts offered them. A key finding shows that a contrasting relationship stands out between teachers' work within their respective schools and that within the CoP. Teachers' autonomy within their school appeared to be exercised in a context of isolation whereas their autonomy within the CoP developed as a result of rich, meaningful and ongoing professional dialogue. Due to lack of collaboration between teachers in schools on matters that relate to teaching and learning, teachers reported limited learning-on-the-job that could better sustain the learning-off-the-job created by their deliberations within the CoP. Within their schools, teacher learning from their colleagues was limited as their school settings did not seem to endorse and promote such engagement.

LTMI recognized the situative perspective of learning (Lave & Wenger, 1991) in the process of enacting inquiry in the mathematics class. Lave and Wenger (1991, p. 98) view a CoP as "a set of relationships among persons, activity, and world over time". Using this theory, two distinctions emerged between the school and the CoP contexts: (1) collaborative learning is enhanced when teachers have ongoing opportunities for deliberations about practice, and (2) teacher implementation of reform is restricted by the individualistic culture still prevalent in local schools. Teachers in this study viewed LTMI as effective for learning about inquiry because of the collective participation of teachers from different schools. An added source of learning for teachers was their reflective practice especially when carried out with others and over a prolonged period of time. Teacher empowerment is seen to stem from such prolonged engagement in social interaction.

Similar to the findings of Spillane and Zeuli (1999), Hodgen and Johnson (2003), Boreham and Morgan (2004) and Golding (2017), teachers reported that their enactment of inquiry was enhanced and sustained by the social collaborative deliberations enacted within the CoP. The CoP, created through ongoing follow-up meetings, emerged as essential for teachers in this study to persist with inquiry. Community offered "a supportive change environment" (Golding, 2017, p. 504) for teachers to grapple with the meaning of enacting inquiry, and engage in ongoing discussions about practice-based concerns, challenges but also success stories in their attempt to transform their practice. Through the CoP teachers demonstrated a sustained inclination for learning collaboratively while negotiating meanings about the nature of their work and, as a result, persist with their inquiry implementation efforts (Maaß & Artigue, 2013). Through participation in the CoP, teachers could break away from a culture of isolated struggles and experience co-learning (Jaworski, 2004, 2010) where they learned together in a sociocultural supportive setting. The CoP meetings offered teachers the opportunity so that their personalised enactment of inquiry could move out of their classrooms and become shared with others. It was through their

rich deliberations about planning, implementing and evaluating inquiry that teachers increased their knowledge and found the support needed to persist with experimenting and changing their practices. The collaborative CoP environment was thus crucial in assisting teachers' journeys towards initiating and sustaining change. When enacting inquiry became social, teachers did not only develop new ways of thinking about personal practices, but this supported them to experiment and go beyond their 'comfort zones' and, in the process, developing new meanings about learning.

Teachers reported that LTMI offered the opportunity for them to experience a change from learning in the isolation within their classrooms and schools to collaborative learning within a CoP. At their schools, these teachers did not draw on their colleagues for support and resources in using inquiry. The 'norm of privacy' (Spillane, 1999) dominating classroom practice in schools warranted individualistic enactment of inquiry. Inquiry enactment was, however, supported by their active agency within the CoP. Through the CoP, teachers could share and negotiate learning emanating from classroom practices and eventually profit from the practice-based deliberations to then return back to their classrooms with more informed understandings. Within the CoP, teachers experienced and expressed that LTMI was facilitated within an environment that offered them agency and freedom, was nonthreatening, and provided enough time to develop their practices at their own pace. This contrasted with school contexts that seemed to control and isolate teachers, thus revealing a lack of trust in their work and in their contributions to improve practices.

In Malta, there appears to be little room for teachers' autonomy and agency as a result of an educational system that is prescriptive, standardised and outcomes-driven supported by summative assessment methods. Moreover, teachers' active engagement in the CoP meetings also contrasted with the passivity assumed during training courses including those held within schools. Their 'new' active ways of learning within the CoP in contributing knowledge, collaborating, and autonomous learning contrasted with the passive, isolated, accepting and controlled roles that framed teacher learning in schools. Teachers revealed how they developed their knowledge about teaching through inquiry within the CoP and, hence, learned new ways of being and acting. Engagement in the CoP within LTMI shaped teachers' identities and their self-perception of their roles in learning about teaching.

Belonging to a CoP offered teachers means to develop their identities (Wenger, 1998). Although teachers shared common goals in learning about inquiry, over time teachers developed their own unique identities, that is, a different way of thinking about practice and these developed in response to personal conflicts generated by contextual, social and cultural factors. Teachers sought possibilities and opportunities for development and, in the process, did not only align themselves with inquiry but also looked critically at the practice promoted by the CoP while aligning with it (Jaworski, 2006). It appears from this study that, becoming inquirers meant that teachers had to engage in deep reflection, take on a critical attitude to their practice, the school context and the system that they were part of, and immerse themselves in a constant struggle challenging the status quo. The learning process that teachers had to go through shaped their self-perception of their role, their agency and relationship with others (Wenger, 1998).

For the seven Maltese teachers in the study, their ongoing interaction with other colleagues to discuss their work and that of their students was key to them in developing and sustaining deeper practice-based understandings of inquiry. Making time for collaboration, an important characteristic of high-quality CPD (O'Sullivan & Deglau, 2006), implies rethinking structures that provide teachers with on-the-job opportunities to meet, share, discuss and learn from one another.

In Malta, but also in other countries like England and Norway (see Bubb & Earley, 2013) teachers have specific time allotted for their professional development. However, these statutory training periods appear to offer limited opportunities for teachers to meet on a regular basis. Professional development time needs to be embedded within teachers' practice on a weekly basis – it needs to address a cultural shift in teacher learning (Stigler & Hiebert, 1999) that involves careful design, support structure and time (Stein et al., 1999). Making time for collaboration entails empowering teachers to take personal initiative in identifying needs and working with colleagues to address these. But, more importantly, making time for collaboration requires a supportive climate (Fullan, 1993) where school environments bring teachers together on a daily basis to learn with and from each other. While arguing for a shift towards a collaborative school culture, Bezzina and Calleja (2017) claim that successful schools are ones that have endorsed this view of making time for teachers to collaborate based on a bottom-up practice-based approach to developing knowledge about teaching.

Conclusion

This study demonstrated that teachers learn better within collaborative environments where collegiality is at the core of CPD programmes. Within their everyday practices, teachers act in ways promoted and afforded by school policies, systems and working relationships. Their professional learning experiences are fundamentally culturally ingrained. New behaviours, new skills, new beliefs and new practices depend significantly on whether teachers are working as isolated practitioners or are exchanging insights about teaching and developing collaborative working relationships. Asking teachers to implement new policies and enact reform practices will be hard (if not impossible) to achieve without changing the culture of teaching in schools. According to Fullan (2007), reform is likely to fail when it focuses on the development of innovation without the necessary attention paid to 'reculturing' schools. This implies a change from individualistic attempts in working, planning and researching their own teaching practices to more collaborative transformations that are well coordinated, supported and sustained by the whole school acting as a community.

As Stigler and Hiebert (1999) contend, improving teaching requires changes in the culture of teacher learning. One emerging and effective model applicable to schools is lesson study – a professional development approach originating in Japan and now exported and used widely in countries internationally (Fujii, 2014; Lewis, Perry & Friedkin, 2011; Lewis et al., 2009) and lately introduced locally (Calleja, 2017). Put simply, lesson study is a collaborative lesson research (Takahashi & McDougal, 2016) in which a group of teachers work together with educators, researchers and policymakers to identify an area for development in student learning. Teachers using lesson study engage in on-going cycles of planning, observing and reflecting on lessons together. Through lesson study, teachers work together to conduct research on practice and become more knowledgeable on teaching. Lesson study has many benefits and incorporates key elements of productive teacher learning through professional learning communities (Lewis & Tsuchida, 1997). By creating collaborative structures, schools support teachers to develop habits of CPD through lesson research. Over time, when collaborative lesson research becomes central to the development of schools as learning hubs for teachers, changes in educational learning cultures built on purposeful collaboration may emerge (Stigler & Hiebert, 1999).

Within schools, professional learning communities should not, however, become isolated collaborative cultures. Such communities should have opportunities to interact because cross-school learning is crucial for building and cultivating a whole school culture for teacher learning (Fullan, 2007). In schools, teachers need to be encouraged to develop relationships for working,

supporting and learning together. Collaborative engagements and practices need to start in initial teacher education (Lortie, 1975) so that they may, later on, perpetuate in developing teachers with a drive and disposition for working collegially in schools. Our call, as educators, is to promote and support a new vision where schools become centres of and for learning, not only for the students, but for teachers too.

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Section III

LEADERSHIP, TEACHER AGENCY AND PROFESSIONAL LEARNING

Teacher Agency in Professional Learning and Development

Mark Farrugia

Abstract

This paper focuses on the epistemology of a proposed PhD action research that aims to study a process that extends the professional potential of educators for their personal learning and development and for the benefit of the whole school community. It outlines the theories that support a research that intends to investigate an alternative approach to continuing professional learning and development by exploring teacher agency through an experiential learning theory approach (Kolb, 2014). It also endeavours to substantiate that by drawing on individual potential, aptitudes and the belief in the human capacity to lead and generate knowledge, educators are provided with the opportunity to lead their own learning and development based on modern trends of 'knowledge creating' in learning organisations. Such an approach of distributed responsibilities also resonates with today's demands for students to be given more opportunities of self-regulated learning (William, 2014). It further explains how the proposed case study is interested in understanding what processes are employed by educators when they are given the freedom to lead their own professional learning and development. Whilst what teachers learn is also critical, this study will consider content as a conditional variable which also determines the process/es chosen. Finally, this chapter will expose and discuss a number of meta-theoretical assumptions and the hypothesis positioned by the researcher.

Keywords: Teacher agency, professional learning, professional development, learning organisations.

The educational process has no end beyond itself; it is its own end ... [it] is one of continual reorganising, reconstructing, transforming. (J. Dewey, 1997, p. 50)

The statement above by Dewey expresses the core axiom of this proposed case study for a PhD research that aims to study a process that extends the professional potential of teachers for their personal learning and development (PLD). For this case study, PLD is understood as the process that contributes to the growth of the teacher as a professional. This research intends to investigate an alternative approach to PLD by exploring teacher agency through an experiential learning theory approach (Kolb, 2014). By drawing on individual potential, aptitudes and a belief in the human capacity to lead and generate knowledge, it is proposed that teachers are provided with the opportunity to lead their own learning and development based on modern trends of 'knowledge creating' within their own learning organisations. Such an approach of distributed responsibilities also resonates with today's demands for students to be given more opportunities

of self-regulated learning (William, 2014). Thus, if we want to see these characteristics in classrooms we need to mirror them in professional development and learning. In cognizance that teachers' beliefs, knowledge and skills are shaped by their experiences both past and present, the research is interested in understanding what processes are employed when teachers are given the freedom to lead their own PLD through 'inquiry and knowledge building cycle[s]' (Timperley, et al., 2008, p. 28). At the end of the current school year 2017-18, teachers will be asked to plan their learning journey through a professional development plan (PDP). This plan will then be implemented during the upcoming school year, 2008-19. Teachers will gather data related to their chosen area of learning and development while applying learning in their daily practice. Alongside this, the researcher will gather feedback from participants and analyse the data to gain a better understanding of teacher agency, learning and development. The objectives of this research are therefore three-fold: a) to promote a versatile/flexible experiential approach of PLD led by teachers; b) to record issues that arise in such a PLD approach; and c) to critically evaluate if such approach is effective in improving teacher efficacy and their practices.

The Problem Underpinning This Research

Like many countries, Malta, influenced by a global narrative that links schooling to economic performance (Kennedy, 2014), is investing to optimise educational practices in an effort to reduce poverty, and increase social cohesion and competitiveness through employability (Camilleri and Camilleri, 2016). The augmentation of the country's intellectual capital was always a priority to Maltese Governments (Bezzina & Cutajar, 2012). The capacity building of educators towards the above ambitions thus becomes critical. McNiff (2010) in accordance asserts that:

There is a real awareness that if governments wish their citizens to become productive and adaptive workforces in the 21st Century, professional learning has to be given the highest priority, and supported by democratic structures that value individual learning as the basis for collective practices. (p.29)

School leaders and teachers in Malta, to date, relied mainly on a central provision for learning and development which, as good as it might be, is not always contextualised and situated where application of new knowledge and skills might not be relevant (Attard Tonna, 2012). Moreover, as Harteis and Goller (2014) note:

a passive approach may lead to the instrumentalisation of learning processes. By relying only on learning opportunities that are readily available and/or somehow compulsory, individuals give up the control of their professional development. Consequently, learning programmes will not always meet individuals' concrete needs. (p.45)

The sessions are thus more in tune with the old, rather than the desired innovative paradigm that recognises individuals as collaborators in knowledge creation (McNiff, 2010; Schleicher, 2012). Change and the globalisation process have transformed the concept of knowledge (Andreotti, 2009; Hargreaves & Fullan, 2013). Gilbert (2007) explains that it should be considered more as collaborative 'knowledge creation' rather than knowledge retrieval. The reconceptualising of knowledge is consequently conditioning how learning and education are addressed (Fadel, 2015). Schools are entrusted with the complex mission of educating students for an unpredictable future made of inconceivable technologies, jobs and social intricacies (ibid.,2015). Adaptability, flexibility, creativity, versatility, ingenuity, communication, critical thinking and collaboration are amongst the most acclaimed aspects that education should promote to address the challenges

posed by the knowledge economy (Kivunja, 2015; Saavedra & Opfer, 2012). The learning culture of a school in this scenario is thus critical (Darling-Hammond, Hyler & Gardner, 2017).

Against this background and the school context that has already engaged a degree of professional learning community (PLC) (Farrugia, 2016), this research will attempt to address paradoxes related to PLD. These paradoxes can be identified both on the national context and the school context. On both the national context that has been long desired that schools engage a PLC culture (Mifsud, 2016) and on the school context which has evidenced an extent of PLC, the professional development sessions are still highly centralised. Centralised, meaning that the area of development does not come from personal or contextual needs but influenced by policies and changes decided by those who lead. Most policies and proposed changes in schools are underpinned by good intents and their ideals are often commended. However, often they fail to bring about the desired improvement due to lack of certainty about the conditions needed to get to the desired change (Robinson, 2017). Bryk, et al., (2015) state that, '[we] consistently fail to appreciate what it actually takes to make some promising idea work reliably in practice' (p.6). Keeping in mind what Bryk et al. (2015) observed which may likewise be a pitfall of this proposed research, the research is proposing to mediate through these paradoxes by looping in teachers' agencies, the challenge of their beliefs and contextualization of practices as the bases of effective professional growth.

Though all learning is valuable, not all learning leads to a change in practice, as most often it is not timely in addressing immediate needs and fails to challenge subtly predominant values and beliefs. Moreover, where knowledge was relevant, the reality evinces that once the scholastic year starts it is at times very hard, without some structured support and focus, to put the learned theory into practice. The reasons are frequently due to contrasting contexts where variables and prioritised needs are quite diverse. Another common perception conveyed in a number of courses is that professionalism is sometimes insufficiently recognised: teachers' experience, reflexivity and criticality are underestimated, resulting in demotivating sessions. This might be a consequence of the impersonal environments of these courses, together with mixed backgrounds, beliefs, values and experiences of the casual blend of attendees, as well as the time limit of the courses. In these environments, compliance is perhaps one of the shared motivators. Attard Tonna and Shanks (2017) acknowledge the importance of the professional learning environment and outline a number of factors that may be conducive to teacher learning such as collaboration and support.

In impersonal contrived scenarios, waste of resources and time, and a lack of motivation towards learning is common. King (2014, p. 90) has noted, that measuring professional development impact frequently 'ignored impact on teacher learning, use of new practices, pupils' outcomes and/or value for money' because most often the measuring tools were missing and learning was not in context. Although there were a number of past recommendations from local researchers in the field of PLD (Bezzina, 1991, 2002a, 2002b), there seems to have been little evidence that there were any national initiatives to offer innovative formats.

The aim is to create a versatile, organic system that adopts Bezzina and Cutajar's (2012, p. 22) idea of 'inside out' and 'outside in', thus reacting to the desire for school autonomy, teacher professionalism, distributed leadership, personalised learning, authenticity, and contextualization of learning, supported by theory and distributed over a period of time with increased collaboration. Consequently, this research aims to study a probable processes that teachers choose for this learning imperative whilst addressing the call by Cordingley et al., (2015) that:

There is a need to identify in more detail the processes that are key to ensuring that conscripts as well as volunteers develop ownership of CPDL and are successful in using new practices to enhance pupil achievement. (p.13)

This approach will consequently present some challenges, which might give more insight in how such a PLD process can be supported. It will also try to understand if such an approach to PLD makes any impact on teacher practices and their self-efficacy.

The Research Questions and Proposition

Thus, the research questions are:

RQ1. What happens when teachers are given the opportunity to have more agency in their PLD?

RQ2. What impact does this PLD approach make on their practice?

RQ3. What difference does it make to their self-efficacy?

These research questions and the proposition that ‘teacher driven PLD increases motivation and effectiveness’ will guide the research by inviting the primary school teachers and the school leadership team (SLT) (26 potential participants) to create their preferred mode of professional learning and development. The intention is to reflect on their learning needs, propose ways to gather knowledge, plan its application, apply the knowledge, observe and gather feedback, amend where needed, and reflect on the whole process. The reflection ‘in’, ‘on’ and ‘about’ practice (Hargreaves and Fullan, 2013; Schön, 1987) will ultimately provide new insights of what are the implications and pillars of such an approach based on what Timperley et al., (2008, p. 28) define as ‘inquiry and knowledge building cycle’.

The following section will thus look at literature and research in PLD and seek to understand what is known about these areas. It critically discusses the rationale underpinning this research and addresses some pertinent perspectives that may support its aims.

LITERATURE REVIEW

Professional Learning and/or Development?

The Cambridge dictionary online defines ‘*development*’ as ‘the process by which someone or something grows or changes and becomes more advanced’, whilst ‘*learning*’ is defined as ‘the activity of obtaining knowledge’ (Cambridge Dictionary (online), 2017). In professional terms, learning sometimes needs to precede development but at other times, development is obligatory. Merriam (2004) explains that:

although transformative learning appears to lead to a more mature, more autonomous, more “developed” level of thinking, it might also be argued that to be able to engage in the process in the first place requires a certain level of development and in particular, cognitive development. (p.61)

Kolb (2014) has encapsulated this dialectic relationship between learning and development through Lev Vygotsky’s theory of ‘zone of proximal development’, where he views learning occurring through ‘experiences of imitation and communication with others and interaction with the physical environment, [where] internal developmental potentialities are enacted’ (ibid., p. 198).

Others like Easton (2008) prefer the notion that there is a shift from development to learning as

she sees more benefit from teachers becoming active learners and 'self-developing' individuals, transforming them into autonomous and self-driven professionals. The OECD (2009, p. 49) report on how to create effective teaching and learning environments defines CPD 'as activities that develop an individual's skills, knowledge, expertise and other characteristics as a teacher', implying the interactivity between learning and development.

Acknowledging the difficulty how such a broad and complex learning activity can be narrowed down to a few words, a critical factor missing in the above definition is that this learning and development results in the learning of the students, which is ultimately the essential aim. Moreover, PD is not only bound to activities but it is rather more an intrinsic personal or collective process of learning. Bubb and Earley (2007) thus define professional development more broadly, yet more specifically, as:

an ongoing process encompassing all formal and informal learning experiences that enable all staff in schools, individually and with others, to think about what they are doing, enhance their knowledge and skills and improve ways of working so that pupil learning and wellbeing are enhanced as a result... creating opportunities for adult learning, ultimately for the purpose of enhancing the quality of education in the classroom. (p.4)

These authors clearly understand and appreciate that a more comprehensive process is taking place in an ordinary school day. Their concept is not limited to those focused, planned and organised training or learning sessions. Webster-Wright (2009, p. 701) talks of continuous professional learning by avoiding the distinction between the 'formal PD courses and everyday professional growth'.

Similar to Bubb and Earley (2007), Webster-Wright (2009) exposes the significance of the 'warranted practice' teachers gain in their daily efforts (Ruthven, 2005). Webster-Wright (2009) identified two limitations of the literature already discussed, namely that teachers are considered as receptacles to be topped up, and that their learning is detachable from the 'socio-cultural' context to be applied in. She consequently recommends a re-conceptualisation of PD by 'moving from a focus on "development" to "learning", and from an "atomistic" perspective to a "holistic" approach' (ibid. 2009, p. 713). Distancing oneself from the idea of traditional training, education or development concepts implies that learning is more active than passive, whilst acknowledging that 'learning at the workplace' is valuable and has the potential of being more authentic than most PD workshops (ibid. 2010).

Further to the two limitations of traditional views of professional development, others have pointed to the same assumption of the 'expert' addressing the 'amateur', reinforcing the 'deficit-mastery model' (Scheerens, 2010). The paradox is that teachers are considered professionals able to construct and facilitate learning of others but many fail to regard the teachers' ability as active organisers of their own (Ginsburg, 2012). Moreover, underlying this assumption it seems that teachers are often considered to be human capital and automated envoys of knowledge without the ability of interpreting and applying the knowledge in context (Timperley et al., 2008).

Thus, knowledge needs timely topping-up during mandated PD sessions to suit changes and reforms that do not always result in the desired improvements (Hargreaves & Fullan, 2013). As discussed earlier, failure may be due to promoting a change through the old paradigm and/or

because of the lack of consideration of the 'socio-cultural' contexts of application. The lack of acknowledgement of 'expertise' gained in the workplace is demotivating for professionals and consequently an attitude of disengagement may permeate (Webster-Wright, 2010).

When educators are motivated and supported to change in their area of competence and within their context, growth is more sustainable (Fullan, 2016). This is also supported by Darling-Hammond and Richardson (2009, p. 47) who identify 'active teaching, assessment, observation, and reflection rather than abstract discussions' as the most useful components of professional development. Eraut (2002) contends that it is the context through which professional development is delivered, and subsequently used that actually helps us to understand the nature of that knowledge. However, these arguments expose what many researchers note, that for both learning and development to happen in an effective, meaningful and sustained manner there need be specific conditions (Cordingley et al., 2015; Darling-Hammond & Richardson, 2009; Timperley et al., 2008). These conditions are considered in the next section.

The Rationale for an Alternative Approach to PLD

Teachers as a Critical Change Factors

The arguments about change and globalisation often discussed in literature (Fadel, 2015; Hargreaves & Fullan, 2012) display the complexity of teaching and how the pedagogy needs to be reactive and cognizant of modern demands. One important factor that emerges is the need of teacher empowerment and support as protagonists of change. This is why Barber and Mourshed (2007, p. 16) assert that 'the quality of an education system cannot exceed the quality of its teachers'. In their research, they found that high-performing school systems get the right individuals in the profession, 'develop these people into effective [educators]' and have adequate systems and support for all learners (Barber & Mourshed, 2007, p. 13).

For many established systems with a set workforce, the second recommendation is paramount as a short to medium term intervention to improve the quality of teaching. There is a broad agreement that investing in an effective PLD approach for teachers will support the cause for improved learning for future generations (Fadel, 2015). This said it is not a straightforward task either. The endeavour to satisfy the knowledge society is complex and places teachers in a challenging position as 'creative mediators' (Pollard et al., 2014). Andy Hargreaves (2003) states that teachers in this scenario have three complex roles: to be 'catalysts', 'counterpoints', and 'casualties' of the knowledge society.

The problem for many systems is that they assume that teachers can react and act without the required support. Structures are needed to relieve teachers from restraining standards, overwhelming curricula and bureaucratic form-filling practices that absorb the time and space for creativity and innovation (Dede, 2010; Rotherham & Willingham, 2010). Moreover, where PLD activities are intended to implement a reform, the paradox is that frequently the approach used is the same as the one it needs to counteract. Elmore (2004, p. 11) suggests that 'the process of cultural change depends fundamentally on modelling the new values and behaviour that you expect to displace the existing ones'. Teachers are expected to make changes in their pedagogy, but in turn they are taught using old methods; treating professionals as passive consumers with an expectation to comply, absorb information and apply it, even though at times unsuitable for the contexts (Fullan, 2006; Lieberman & Wood, 2002).

Pivotal to the above debate and for this research is what Fullan (2006) asserts, that 'if teachers are

going to help students to develop the skills and competencies of knowledge-creation, teachers need experience themselves in building professional knowledge' (p 4).

Conversely, the design of a number of PLD sessions appear to still consider teachers as 'deficient and in need of developing and directing rather than ... a professional engaged in self-directed learning' (Webster-Wright, 2009, p. 712). Another issue she exposes is the division between the professional and the context, even though highly related, resulting in a detached analysis in research. She adds that the quotidian 'experience' of learning from practice is sparsely scrutinised in the light of the interrelated aspect of the learner, the context and the learning. Consequently, she calls for more research 'beyond the "development of professionals" that investigates the "experience of professional learning" as constructed and embedded within 'authentic professional practice' (Webster-Wright, 2009, p. 712).

A Focus on Learning

Recently, there has been a move to shift the attention from the teachers to the teaching, challenging the assumption that student learning only improves by improving teacher quality (Hiebert & Morris, 2012). Evidence suggests that approaches such as 'lesson study' improves the teaching, the teachers and the student learning through 'high quality instructional resources, structures for learning within practice, and collegial learning' (Lewis, et al., 2012, p. 369). This approach is seen as beneficial as teachers and researchers are equally engaged in the improvement of learning through joint practice development (Hiebert and Morris, 2012).

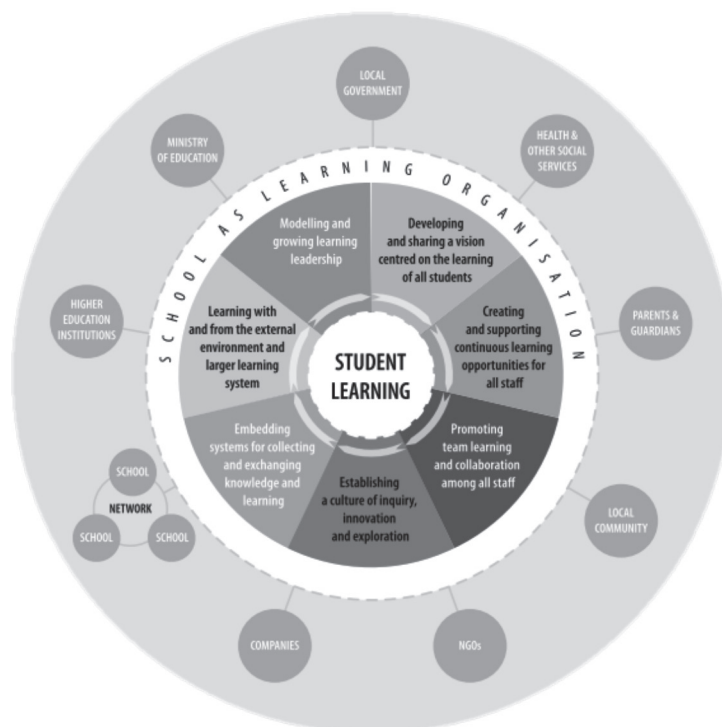
Another counteraction to the top down culture of PD that evolved in the past two decades was a movement to create schools as learning hubs for all, giving birth to learning-centred communities (Bubb and Earley, 2007; Stoll, et al., 2006). Underpinned by social constructivist theories, professional learning communities and learning organisations (see Figure 1) were proposed, studied and refined (Louis, 2007; Roberts & Pruitt, 2008). These propositions considered the individuals working within a school as contributors that make part of a collective social construction of meaning, reflecting a number of characteristics aimed at maximising learning through a collaborative culture and shared responsibility (Stoll et al., 2006).

The main aim of learning communities is the improvement of the learning experience and students' development. The underlying belief is that everyone can learn and that the latter cannot result without the improvement of those who collaboratively promote it (Barber and Mourshed, 2007).

A culture of collaboration and shared responsibility for student learning is seen as the linchpin in these organisations. The pooling of collective knowledge through reflective practices and critical data analysis makes change of practice or its understanding, as an embedded process within these school cultures (McLaughlin & Talbert, 2006). Kools and Stoll (2016, p. 1) characterise this as schools that have 'the capacity to change and adapt routinely to new environments and circumstances as its members, individually and together, learn their way to realising their vision'. Thus, reflecting this culture into a PLD approach that provides teachers with the capacity to lead their own learning and development on modern trends of knowledge, creating learning organisations is critical.

Consequently, this takes us back to the arguments exposed earlier in respect to the demand of the knowledge society to prepare students to be adaptable, versatile, collaborative, creative, etc. Avoiding the pitfall of fashioned PD programmes, creating a school culture which operates on

Figure 1. Schools as Learning Organisations (Kools & Stoll, 2016, p.1)



learning organisation principles would be more conducive for students to gain the much acclaimed 21st century competencies (Darling-Hammond & Richardson, 2009). As discussed above, one of the central factors in this phenomenon is the teacher, and understanding how a teacher learns is critical to develop an effective system of PLD. The following section discusses some related issues.

How Teachers Learn

Opfer and Pedder (2011, p. 389) state that ‘teachers have an orientation to a learning system that consists of the interactions among their experiences, beliefs, knowledge, and practices’. This is echoed in the research literature where the aim is to understand what ‘learning system’ and what ‘interactions’ take place in teacher learning. James and McCormick (2009), extrapolating their research from pupils to teachers and shifting from the psychological properties to practices that can be learnt for ‘learning autonomy’, concur that it is more about the ‘learning how’ than the ‘learning to’ learn. One of the main conclusions of this research is that ‘beliefs and practices are inter-related and need to be developed together’ (ibid.2009, p. 982). The challenging of teacher beliefs thus often revolves around reflective practices. In relation to this, Argyris (2008) has framed the ‘double-loop learning’ against the most common practice of ‘single-loop learning’, where the latter does not bring change in beliefs and consequently practice. He claims that:

effective double-loop learning is not simply a function of how people feel. It is a reflection of how they think—that is, the cognitive rules or reasoning they use to design and implement their actions. (p.5)

He posits that professionals’ ego is the main obstacle to challenge themselves and their beliefs,

and tends to shut down the learning. Avalos (2011, p. 15) adds that 'if there is a gap between beliefs and suggested practices, change will only occur if the gap is recognized'. The centrality of 'beliefs' in this learning process is also expressed by Harnett (2012, p. 381) who states that 'the practice of experienced classroom teachers is often strongly influenced by their implicit beliefs and routinized behaviours'. The lack of critical reflection or its skill, is frequently the reason given for teachers' 'routinized behaviours' and the inconsistency between their 'espoused theory' and their 'theory in use' (Argyris, 2008). Argyris (2008, p. 44) suggestion is to help individuals to learn to 'recognize the reasoning they use when they design and implement their actions'. The reflection 'on' and 'in' actions has long been acclaimed (Schön, 1987). The combination of planning, action and reflection are thus seen as a strong process to challenge beliefs, which usually hinder teachers' innovative practices. Moreover, it is augmented when done collectively. The concerted effort in planning, action and reflective discourses amongst colleagues to overcome daily complex challenges creates a process, and ultimately a culture, of the co-creation of knowledge and practices creating a 'professional capital' (Hargreaves and Fullan, 2013) or 'knowledge ecosystems' (Pór and Molloy, 2000). The latter is considered to deepen learning for all the community (Harnett, 2012).

The above arguments are more rooted in 'experiential learning theory' (Kolb, 2014) and in the evolution of 'andragogy' to 'heutagogy' or 'self-determined learning'. Kolb (2014, p. 49) based his theory on Lewin, Piaget and Dewey's work and developed the 'experiential learning theory'. He defines it as 'the process whereby knowledge is created through the transformation of experience' (p. 49).

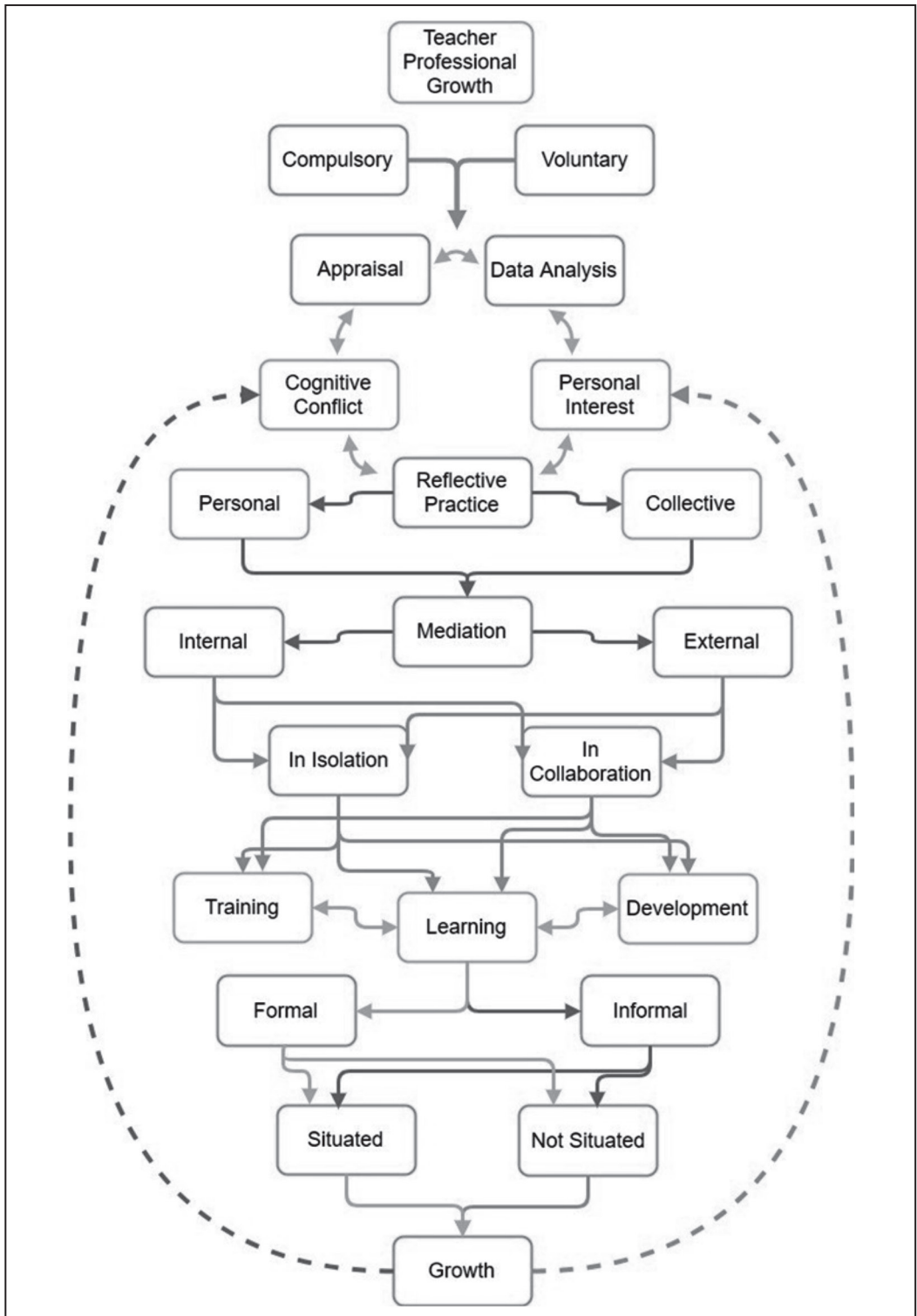
Whilst 'andragogy' is defined as 'self-directed' learning, Hase and Kenyon (2007, p. 112) describe 'heutagogy' as 'learner-centred learning that sees the learner as the major agent in their own learning which occurs as a result of personal experiences'. Blaschke (2012) views heutagogy as a continuum of 'andragogy', which is dependent on the learner's maturity to autonomously progress in learning with less scaffolding. Since the proposal of heutagogy, the concept's applicability is seen in various settings which also match with PLD needs and this research proposal (Hase and Kenyon, 2007). Thus, it is seen fit to establish this research under this perspective of lifelong learning and in what Kolb (2014, p. 30) proposes as that done 'through experiential learning theory [with] a holistic integrative perspective on learning that combines experience, perception, cognition and behaviour'. He also equates the influence of 'learning styles', which is also relevant for this context. Though its epistemology is based on the 'self' as learning agency, nonetheless, it also recognises the importance of collaboration and an external facilitator or coordinator (Blaschke, 2012). Moreover, it is also rooted in human agency (Hase, 2015) which will be discussed in the next section.

Figure 1 charts a professional growth trail that a teacher may opt according to their personal needs and contexts. This professional growth chart is synthesised from researchers' descriptions of paths that professional development can follow. The flow chart will also serve as a frame for the PLD approach to be adopted in this research as explained later in the methodology section.

Teachers' Professional Agency

The concept of agency has gained in importance over the last decades especially in areas of adult learning and adult education (Eteläpelto, Vähäsantanen, Hökkä and Paloniemi, 2013). However, the theorisation of agency is more prevalent in the broad sociological arena rather than specifically in the teaching profession (Biesta, Priestley and Robinson, 2015). 'Professional agency' according to Pyhältö, Pietarinen, and Soini (2015, p. 813) 'is considered as a capacity

Figure 2. Professional Growth Trail



that prepares the way for the intentional and responsible management of new learning, at both an individual level and community level'. 'Intention' here is congruent with Kolb's (2014, p. 42) 'concrete experience ability' which is the ability 'to involve themselves fully, openly, and without bias in new experiences'. In practicing 'agency', professionals engage in knowledge creation while using meta-cognitive and reflective processes for self-regulated learning to overcome challenges encountered in their work (ibid.,2015).

Bandura (2006) identifies four core properties of human agency:

1. *intentionality* – intentions [are formed] that include action plans and strategies for realizing them
2. *forethought* – set...goals and anticipate likely outcomes of prospective actions to guide and motivate... efforts
3. *self-reactiveness* - the ability to construct appropriate courses of action and to motivate and regulate their execution
4. *self-reflectiveness* – reflect[ion] on ... personal efficacy, the soundness of ... thoughts and actions, and the meaning of ... pursuits, and ... make corrective adjustments if necessary (p.164-5)

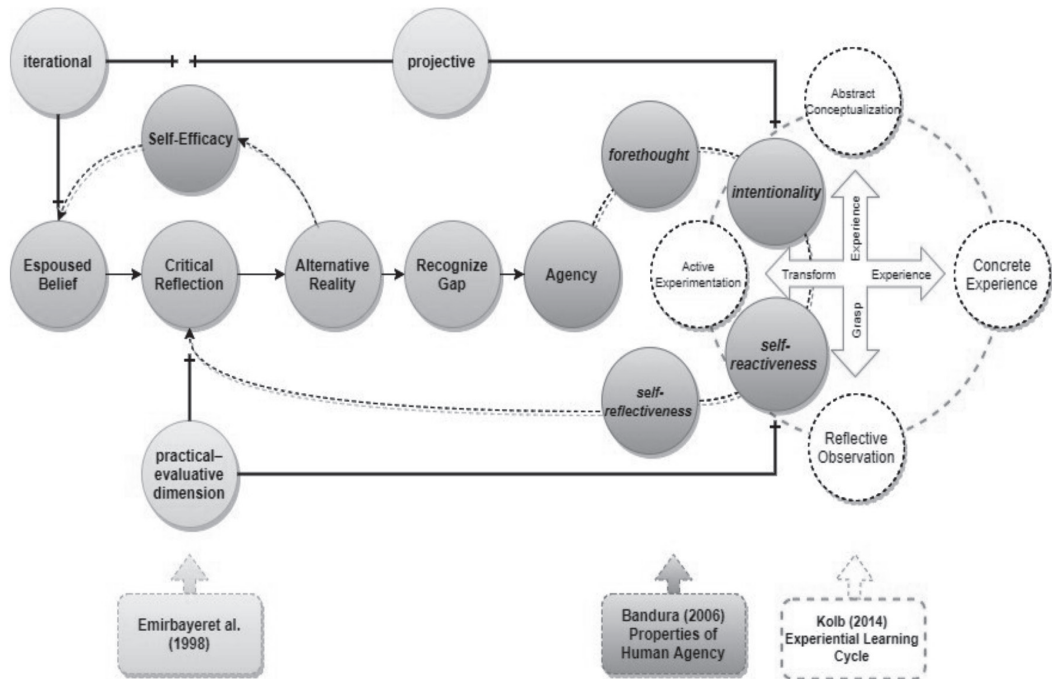
Emirbayer and Mische (1998) give a temporal explanation of the agency concept and view agency as a construction of past impacts (iterational), future projections (projective) and involvement with the present (practical–evaluative dimension). Bandura (2006) further explains that people do not function in isolation but in an 'interplay of intrapersonal, behavioural, and environmental determinants' (p.165). Yet, the most influential is the 'belief of personal efficacy' which is critical in 'development and change' (ibid.,2006, p. 170). This reflects the belief that the individual has the capacity to change and manipulate present and future actions. Bandura (2006) asserts that:

People who develop their competencies, self-regulatory skills, and enabling beliefs in their efficacy can generate a wider array of options that expand their freedom of action, and are more successful in realizing desired futures, than those with less developed agentic resources. (p.165)

In Figure 3 I have integrated a process of change through 'agency' as described by Emirbayer and Mische (1998) and Bandura (2006) with the experiential learning cycle by Kolb (2014). The model takes the challenge and change of belief as the baseline of learning as explained in the previous section. When an alternative reality is recognised and the gap between the espoused belief and the new reality is understood agency is activated as long as the new reality or 'model' as explained by Darling-Hammond, Hylar and Gardner (2017) is believed to bring improvement (Robinson, 2017). The agency cycle outlined by Bandura (2006) is shadowed by Kolb's (2014) experiential learning cycle where both cycles employ cognition (forethought, abstract conceptualisation), concrete aims (intentionality, concrete experience), action (self-reactiveness and active experimentation) and reflection (self-reflectiveness, reflective observation). Kolb's (2014) experiential learning cycle makes the process more versatile in that it acknowledges the various demands of different tasks and the needs of individual learning styles.

Figure 4 is an example of how the model above is at work in a maths research context explained by Turner, Christensen, and Meyer (2009). Biesta et al. (2015) link beliefs to the 'iterational' dimension of agency. These are the beliefs acquired through past experience, which in their

Figure 3. Integrated Model of Agency and Experiential Learning Cycle



research were the most prevalent. The authors found that teachers are often driven by short-term process oriented goals resulting in very efficient practices albeit sometimes less effective. They, therefore, prompt for more ‘intellectual thinking’ in teacher education. Teachers, they argue, need to be more active agents rather than doers, and recognising the capacity to be an agent of change; they can be given more opportunities to lead their learning to strengthen their self-efficacy.

Goller and Billett (2014) state that:

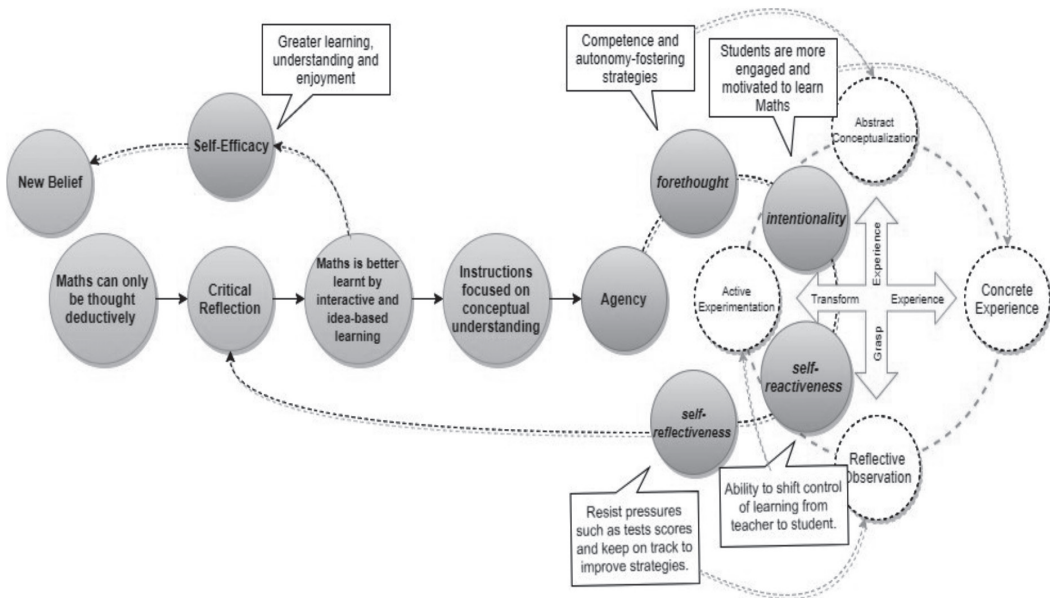
exercising personal agency at work permits employees to influence their own professional development processes through active engagement in activities and interactions and the degree and direction of their intentionality, which extends to introspection. (p.36)

Teachers’ agency for professional learning and development in the knowledge society would look more like the Hargreaves and Fullan’s (2013) description as:

teachers on the move... a school thing, a professional thing and a system thing. The only solutions that will work on any scale are those that mobilise the teaching force as a whole - including strategies where teachers push and support each other. (p.22)

Nonetheless, school leaders and experts can act as those who stimulate a further vision to extend their goals (Attard Tonna & Shanks, 2017). The leadership imperative is thus also fundamental in

Figure 4. Example of Agency Cycle in Practice



this learning process to stimulate alternatives (Cordingley et al., 2015). The following section will therefore try to understand the nature of this leadership vis-à-vis effective PLD.

Leadership Influence in PLD

To thrive, an organization must have both the wisdom to ask the right questions at the right time, and the infrastructure for tapping into its own collective intelligence for responses. (Pór & Molloy, 2000, p. 2)

Apart from underlining the value of critical reflection in an organisation, Pór and Molloy (2000) also emphasise the importance of support. This support for learning is usually one of the main responsibilities of school leadership. In the PLC literature, there is a distinction between two main infrastructures needed for support. Firstly, support for the collegial relationships that contribute to the ‘professional capital’ thus implying the human, social and decisional capital (Hargreaves & Fullan, 2013); and, secondly, structural support on an organisational level such as funding, time to meet, proximity of teachers, communication procedures and provision of experts (Timperley, 2011). Cordingley et al. (2015, p. 8) conclude that ‘successful CPDL occurred where school leaders created conditions which allowed it to flourish’.

Moreover, the leaders who were actively involved in learning were more effective. Their involvement varied from understanding of the changes needed to the practice process and to the facilitation of the conditions needed to enact the PLD (Cordingley et al., 2015, p. 9); or as Hargreaves (2013) describes it, as in a ‘push, pull, nudge’ manner. Even the facilitators or coordinators who take a leading role are more effective when distribution of leadership is practiced. Cordingley et al. (2015, p. 6) noted that when learners were treated as ‘peers and co-learners’ there was greater sharing, notwithstanding a degree of challenge. Distributed leadership is also seen to be

beneficial when individuals were encouraged to drive pedagogical or curricular matters (Eaker & Gonzalez, 2006). Distributed leadership and a shared vision will instil trust, increase motivation and ease the challenge of resistance (Timperley, 2011).

The leadership involvement would appear more like what Eaker and Gonzalez (2006) envision as 'leader of leaders'. A common construed vision is similarly important where leaders are instrumental in encouraging an 'alternative reality' (Cordingley et al., 2015). Timperley (2011, p. 129) suggests that: a focus on students; ensuring worthwhile content; engaging in meaningful processes; and having skills and opportunities to check impact should be the main vision and underlying principles of PLD. Considering the last principle, the next section discusses how programmes can be evaluated, and what standards can guide effective PLD.

What are Effective PLD Programmes?

Darling-Hammond, Hyler and Gardener (2017) define effective PD 'as structured professional learning that results in changes in teacher practices and improvements in student learning outcomes' (p.v). The generic assumption is that every organised programme aims to have a desired impact and change, regardless of its setting, that is, a traditional or innovative format. Unfortunately, the reality has evidenced that the outcome has not always been so (Webster-Wright, 2010). The continuous study of such an essential activity is critical to maintain its relevance in content and delivery, eventually for the relevance of the profession itself. The impact of a PLD programme has to be measured in how much difference it makes 'to pupil outcomes by improving pedagogy and teachers' learning' (Stoll, Harris & Handscomb, 2012, p. 2) hopefully resulting in improved self-efficacy and motivation. Nonetheless, negative impacts of PLD programmes are also valid in contributing data to research as they are refuting any projected beliefs and hypothesis. For instance, from their literature review, Cordingley et al. (2015) deduced failures in:

professional development which does not have a strong focus on aspirations for students and assessing the impact of changed teacher practices on pupil learning.
(p.8)

Fortunately, we do have evidence of what works in PLD. Table 1 is a review of six publications, where four are reviews of literature (Cordingley et al., 2015; Darling-Hammond et al., 2017; Opfer and Pedder, 2011; Stoll et al., 2012), one is a research paper on a project (Fletcher & Zuber-Skerritt, 2008), and the fifth is a research paper discussing PD concepts (Easton, 2008). My aim in creating such a table is to extract a snapshot of a typology of effective PLD characteristics whilst displaying how many factors are acting in this learning process.

It is evident that the type of activity is critical for effectiveness where amongst these researchers, data driven aims through reflection and in collaboration are unanimously agreed characteristics. Nonetheless, the others in the list also have their relevance, which might vary within different contexts.

The analysis is fundamental for this research, which seeks to study a new approach to PLD, and the data shared from these researchers are valuable in the progression of this professional endeavour. The challenge for leaders, PLD facilitators and coordinators is how to harmonise all these characteristics in a programme that is holistic and that provides the needed impact and outcome. Even though some consensus is found on the positive characteristics of PLD, it seems that prediction of teacher learning is still insecure. The complexity of the attempt arises from the

Table 1: Typology of Effective PLD Characteristics

System (Opfer and Pedder, 2011)	Characteristics of Effective Professional Learning and Development Programme	Easton (2008)	Fletcher and Zuber-Skerritt (2008)	Stoll, Harris and Handscomb (2012)	Cordingley <i>et al.</i> (2015)	Darling-Hammond <i>et al.</i> (2017)
A	Data and needs driven	✓	✓	✓	✓	
A	Enquiry and action research based		✓	✓		
A	In Praxis and action learning	✓	✓	✓		✓
A	Varied, rich and sustainable		✓	✓	✓	
A	Involve external experts		✓	✓	✓	✓
A	Is content rich and use content-specific formative assessment	✓	✓		✓	✓
A	Has a learning process		✓	✓	✓	
A	Has an impact and a learning outcome indicator- responsive evaluation	✓	✓		✓	
A	Is ongoing and evolutionary (flexibility & adaptive planning)	✓	✓			
A	Stretch over a period of time				✓	✓
A	Is driven by aims and goals	✓	✓	✓	✓	
IA	Planned with participants	✓	✓		✓	
IA	Considers participants' expertise, knowledge, skills and experience	✓	✓		✓	
IA	Involves reflection and critical thinking for change	✓	✓	✓	✓	✓
S	Supported by school leadership			✓		
S	Supported by structure	✓		✓	✓	
SA	Contextualised	✓	✓	✓		✓
SA	Collaborative and Joint practice	✓	✓	✓	✓	✓
SA	Fosters professional and networking communities	✓		✓	✓	✓
SA	Use of Models and Modelling					✓

Legend: I-Individual; S-School; A-Activity or any combination of the three (Opfer and Pedder, 2011)

sophistication of the variables in the systems involved, and that is, the individual, the school, and the activity (Opfer & Pedder, 2011).

The characteristics listed in Table 1 are categorised according to which system, as synthesized by Opfer and Pedder (2011), they affect. At a glance this synthesis indicates how this 'complex phenomenon' is highly dependent on the activity and its design. Nonetheless, the idiosyncrasy of the individual and the school will in turn also influence the activity.

Evaluation of PLD Activities

'The belief that all genuine education comes about through experience does not mean that all experiences are genuinely or equally educative'. This statement articulated by John Dewey (2007, p. 25) cautions against taking certain experiences implicitly without critically evaluating their outcome or impact. Certainly, this also stands for PLD activities. King (2014) has synthesised and developed a framework of PLD evaluation (see Figure 5) based upon the works of Hall and Hord (1987), Guskey (2002), and Bubb and Earley (2010). The PD evaluation framework sought to evaluate impact at various levels and studies influential links such as 'systemic factors' (support; initiative design and impact; teacher agency) and 'diffusion' (how the learning has effected the nuclear or extended community) amongst others.

Nonetheless, outcomes have their weight too, both on the staff (on the personal, professional and cultural level), as well as the students' holistic development. King (2014) contends that the use of this framework is aimed to 'promote individual and collective responsibility for pupils' success, where she emphasises that:

professional responsibility may be a richer form of accountability and one that is more 'fit for purpose' than the current emphasis in many countries on over-using standardized test results as the principal means of judging school improvement. (p.108)

Conceding that PLD activities are complex for the reasons raised earlier (Opfer & Pedder, 2011) and that there are different ways to evaluate the activity (King, 2014), educators in this learning process are critical, where educators become students (Hattie, 2012), researchers (Kemmis, 2009) and agents of their own learning (Hase & Kenyon, 2007).

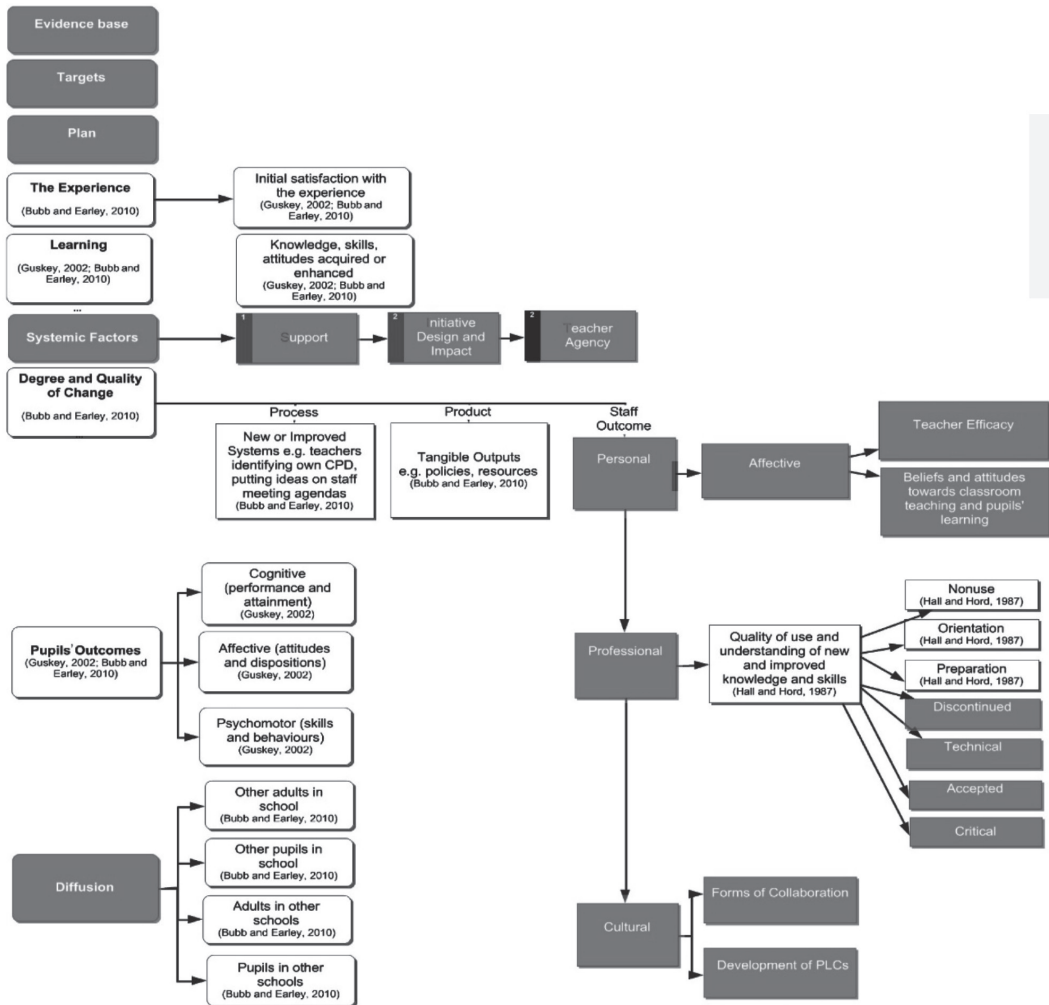
Even more central to this phenomenon is the learning and renewal of the participants' beliefs that seems to be the key factor amongst other 'defusing' or interrelated determinants. Stoll et al. (2006, p. 228) however, assert that 'impact cannot be considered separately from purpose', elaborating that in a PLC the purpose is always the success of the students.

Yet, evaluating such a complexity of factors and systems through an achievement perspective will make the endeavour rigid and derail it from the characteristics of effective PLD outlined earlier, that is it is ongoing and evolutionary (flexibility and adaptive planning) thus needing 'responsive evaluation' (Fletcher & Zuber-Skerritt, 2008).

Conclusion

The fundamental thread throughout this section starts from the 'change' factor and the ability of schools and educators, considered key in the social construction of knowledge, to react to consequential educational needs. Therefore, an adaptive, versatile/flexible and collaborative approach to learning is sought through the collective intelligence, using critical reflection to

Figure 5. The Revised PD Impact Evaluation Framework by King (2014, p. 101)



challenge beliefs and test new ones in context to improve the learning experience in a school community. The optimistic aim is to shift from ‘good’ to the ‘next’; a move from ‘existing practices that already have a good degree of widely agreed effectiveness’ to ‘innovative approaches that often begin with teachers themselves and that will sometimes turn out to be the best practices of the future’ (Hargreaves & Fullan, 2013, p. 51). It is thus generally accepted by researchers that if teaching practices are improved, students’ achievement and development will consequently improve too (Barber & Mourshed, 2007). The following section outlines a research design that will enable me to address the RQs.

PROPOSED METHODOLOGY

The research aims to study a PLD approach that values teacher agency and that is relevant to the needs and contexts of participating individuals or groups. In doing so, the researcher aims to answer the following research questions:

- RQ1. What happens when teachers are given the opportunity to have more agency in their PLD?
RQ2. What impact does this PLD approach make on their practice?
RQ3. What difference does it make to their self-efficacy?

The intents are to study what happens when teachers are given more autonomy for their own PLD (RQ1). Both as head of the primary section of the school and researcher, the researcher will facilitate the teachers' agency while applying the broad knowledge retrieved from research about effective professional learning and development. The ultimate aim is to empower teachers' growth, study how agency and self-directed PLD takes shape and how it affects teachers' practices and their self-efficacy (RQ2, 3).

Ontological and Epistemological Perspective of this Research

The research will adopt an interpretivist/constructivist paradigm to answer the research questions that intend to understand the subjective teacher experiences of self-directed PLD. Kivunja and Kuyini (2017, p. 33) state that 'this paradigm assumes a subjectivist epistemology, a relativist ontology, a naturalist methodology, and a balanced axiology'. The subjective nature of this paradigm or perspective assumes that meanings are reflected by the researcher and that 'the researcher and their subjects are engaged in interactive processes in which they intermingle, dialogue, question, listen, read, write and record research data' (ibid., 2017, p. 33).

The attempt is to examine the participants' perception of their experiences as they go through the contextual and culturally influenced events that emerge out of the process (ibid., 2017). In the belief that underpin this paradigm (relativist ontology) that realities are multiple, unique, socially constructed and that meanings are bestowed on experiences (Cohen, Manion & Morrison, 2017), the researcher is not seeking any absolute truth but how a different PLD reality might affect participants in their particular contexts and culture. Since all involved agents in this process are mutually influential, it is understood that it is hard to separate cause from effect (ibid., 2017) and where meanings are considered in evolution whilst they are also time and contextually bound.

Opfer and Pedder (2011, p. 379) maintain that 'teacher learning evolves as a nested system involving systems within systems'. Consequently, teacher learning emerges as a 'complex system' exhibited through the systems' interactions and other agents that integrate in a non-linear way even though 'highly patterned' (ibid., 2011, p. 379). Thus, Opfer and Pedder (2011) contend that:

identifying emergent patterns of interaction within and between levels of activity that would constitute an explanatory theory of teacher learning as a complex system requires variable-inclusive (as opposed to control) strategies of research, development, planning, and evaluation. (pp.379-380)

Doolittle (2014) combines the principles of complex systems with the constructivist theory of learning to combine two strong 'metaphors' that characterise teacher learning. Thus in 'complex constructivism' a non-linear, adaptive, and constructive nature of learning is espoused and underpinned by six ideals:

learning involves an individual's adaptation to the environment;
learning involves the active construction of knowledge by the individual;
learning involves the self-organization of knowledge and experience into internal models;

learning involves the emergence of internal models as a natural consequence of an individual's on-going experience;
learning is a function of both individual interaction and existing internal models;
and
learning occurs within agent hierarchies and selection pressures that includes individuals, family, friends, and local and global culture. (Doolittle, 2014, p. 494)

The understanding of the complex system of how teachers learn and develop through their agentic disposition is key to this research. Both complexity theory and constructivism believe that the natural environment is central where case studies that endeavour to understand the participants' viewpoints on the phenomenon is critical (Cohen, Monion & Morrison, 2017). The next section will thus try to explain the research approach that fits within this paradigm that adopts a 'naturalist methodology' (Kivunja & Kuyini, 2017).

Research Approach

The research will adopt a mixed methodology approach to study the complex phenomenon and process of teachers' PLD as this design will best answer my RQs. Cohen et al. (2017) state that:

MMR [mixed methodology research], enables a more comprehensive and complete understanding of phenomena to be obtained than single methods approaches and answers complex research questions more meaningfully, combining particularity with generality, 'patterned regularity' with 'contextual complexity', insider *and* outsider perspectives (*emic* and *etic* research), focusing on the whole *and* its constituent parts, and the causes of effects. (p.33)

Creswell and Clark (2011) identify four foundations of Mixed Methodology Research (MMR), namely post-positivism, constructivism, participatory/transformational and pragmatism. My research design will employ aspects of all four foundations at different stages of research where the aim is to frame and effectively answer the RQs. Though teacher agency is central to this research, the causality of this phenomenon is much more complex to identify. This is the enquiry of RQs two and three. Moreover, considering the 'commensurability' issues related to MMR raised by critics (Cohen, Monion & Morrison, 2017) the qualitative and quantitative paradigm are considered as complementary and synergetic in attempting to give a better understanding of the phenomenon and a better explanation of the RQs.

The designed mixed method falls under Creswell and Clark (2011, pp. 69-79) classification of 'convergent parallel design' where both qualitative and quantitative data are independently collected and analysed, though in parallel, to offer complementary data and triangulation on the RQs. For example, the KLSI (quantitative survey) will give additional data on the learning style of the participants that will offer comparison or contrast on the method of learning chosen for the PLD, thus employing methodological triangulation (Bush, 2012). The latter will not be the only type of triangulation used in this study. 'Data triangulation' will be applied, as diverse data will be gathered at different times during the planned research period. Table 2 is an outline of the data collection tools and their corresponding advantages and disadvantages as well as reliability and validity issues.

The tools correspond to naturalist methodology where 'the researcher utilises data gathered through interviews, discourses, text messages and reflective sessions, with the researcher acting as a participant observer' (Kivunja & Kuyini, 2017, p. 33).

Table 2: Data Collection Tools

Data Collection tool	Advantages Disadvantages	Reliability Issues	Validity Issues
Survey Kolb's Learning Style Inventory (KLSI 4.0)	<ul style="list-style-type: none"> - Wide coverage - Economical - Easy to Arrange - Supply standard answers - Accurate data - Poor response - Pre-coded questions may be frustrating - Responses cannot be checked for truth <p style="text-align: right;"><i>Denscombe (2014)</i></p>	<p>The KLSI 4.0 is an revised version of the 3.1 which had a high test-retest reliability</p> <p style="text-align: right;"><i>(Kolb and Kolb, 2013)</i></p>	<p>The Inventory was used in various context and proved to be valid in a wide spectrum of professions</p> <p style="text-align: right;"><i>(Kolb and Kolb, 2013)</i></p>
Semi-Structured Interviews	<ul style="list-style-type: none"> - Deep unique-valuable data - Can gain valuable insights based on the depth of the information - Simple Equipment - Can produce data based on informants' priorities, opinions and ideas. - Flexible - High response rate - High level of validity - Rewarding for the informant - Time-consuming - Produce non-standard responses - Conditioned reliability - Interviewer effect - Risk of Inhibitions - Invasion of privacy - Time consuming <p style="text-align: right;"><i>Denscombe (2014)</i></p>	<ul style="list-style-type: none"> - Research questions have to be kept in focus - Reduce Interviewer effect as much as possible 	<ul style="list-style-type: none"> - Data can be checked for accuracy and relevance as they are collected - Inferences done have to abide to the language and concepts of participants
Participant Observations	<ul style="list-style-type: none"> - Basic Equipment - Non-interference - Rich insights - Ecological Validity - Holistic explanations - Subjects' point of view - Limited access - Demanding - Weak on reliability and generalisability as it depends on 'self'. - Ethical problems <p style="text-align: right;"><i>(Denscombe, 2014)</i></p>	<p>Use systematic observation rubric. (To be created and tested thus lacks reliability data)</p>	<p>Rubric is used as a diagnostic tool for PLD</p>

The Research Process

The research will be launched on a three-day programme (Table 3) at the end of June 2018.

Teachers identify area of growth

The first day is intended to stimulate a reflective discussion to identify the areas of growth. The teachers will subsequently generate their PLD goals, aligned to the school's mission and vision, with appropriate individual or collective challenge. The following days will consequently be used to plan how the goals are going to be attained through a Professional Development Plan (PDP) aimed to be implemented from September 2018 until June 2019 (see appendix for draft questions intended for discussion and for a PDP specimen).

Table 3: PDP Programme

First Day		Second Day		Third Day	
8.30	Discussion to identify a specific learning area. Guiding questions in Appendix	8.30	Kolb's Learning Style Indicator administration. Group Organisation Start research on identified area	8.30	Conclusion of main planning document with findings from research
10.30	Break	10.30	Break	10.30	Break
11.00-12.30	Conclusion of main subject. Start PLD plan document	11.00-12.30	Research Cont. and identification of resources (experts, spaces, educational material, time etc.)	11.00-12.30	Presentation of the projects and evaluation of the three days

Create a plan

Table 2 outlines how the data are going to be gathered over the three days of the programme.

The creation of a PDP is directed at all participants involved in this research. This document will be important for this project, as it will help to analyse how teachers plan and implement their learning. It will also help the researcher to infer how they apply theory to their context, while keeping the implementation of the growth area focused.

I am also proposing to invite participants to use the Kolb's Learning Style Inventory v 4.0 (Kolb and Kolb, 2013) to reflect on their learning style which may help them implement their PDP. This will also contribute the research to explore any relation with the processes chosen. The inventory will be completed online as part of the planning days in June.

Implement the plan during a scholastic year

Each teacher's plan will run for a school year, from September 2018 to mid-June 2019. Teachers will be given time throughout the year in which to make progress towards their goals. Along this span of time, data from multiple methods will be collated and analysed using NVivo.

Data Gathering

Data will be gathered through the following three methods:

- Documentary analysis (PDP document, Learning style Inventory Results, etc).

- Semi-structured interviews with participants at particular phases of teachers' PLD: after the three day PDP session, during the implementation of the PDP and finally at the end of the whole process. The intent is to gather teachers' perceptions about the development of the PLD process.
- Participant observation. (Me as researcher as participant-as-observer)

Participant Observations

The researcher will ask the participants to feel free to invite me to conduct observations of any activity that is related to the planned learning and development. For pragmatic reasons, observations will be limited to not more than ten participants. Being immersed in the research context, the researcher will have the possibility to observe naturally any circumstance that sheds further light on answers to the research questions.

The following are factors that will characterise my observations:

- i. The researcher's stance will be as participant-as-observer since he has to facilitate and support the PLD process,
- ii. qualitative data will be gathered through field notes throughout the whole school year from September 2018 till June 2019,
- iii. the researcher will study interactions and developments in the natural setting during the whole school year,
- iv. the researcher's position will be overt,
- v. data gathered will be from direct and indirect incidents,
- vi. observations will be naturalistic, thus following relevant information that can help address the RQs.

Data Analysis

The analysis will follow the interpretative paradigm using tools of qualitative analysis i.e. summarising, coding, narrative accounts, thematic analysis and patterning using the two models created for this research as a framework: the Professional Growth Trail model (Figure 2) and the Integrated Model of Agency and Experiential Learning Cycle (Figure 3). This process will systematically help the researcher to answer the first RQ, which enquires into how teachers choose to learn and frames interpretations within the teachers' agentic process. In assuming a 'balanced axiology' (Kivunja & Kuyini, 2017) engaged by the interpretivist paradigm, the researcher is aware that the conclusions of the research will be influenced by his personal values whilst he will endeavour to present a balanced report of the findings. It is therefore imperative that the espoused values are explicit and adopt the 'credibility criterion' that implies that 'data and data analysis are believable, trustworthy or authentic' (Kivunja & Kuyini, 2017, p. 34).

Ethical Considerations

The research will follow the IOE Research Ethics Guidebook (online) and BERA (2011) guidelines to safeguard all participants and respect the whole school community. Protection of the institution and participants who will contribute to the study will be critical while applying the 'principle of inclusivity' (Locke, Alcorn & O'Neill, 2013, p. 113). Pseudonyms will be given to the school and teachers and the location of the school will not be disclosed. Teachers and leaders will be asked to consent to participate and assured of confidentiality and anonymity, and that they are free to opt out of the study at any stage.

Data will be stored on a password protected cloud storage system and access will be limited to the researcher and his supervisors.

Multiple Role Dilemma

A critical aspect of this research that will present challenges for the researcher as someone immersed in the research environment (insider) and who holds a leadership role, concerns issues related to power and equity. Personal reflexivity will be highly important to evaluate how the researcher's role and identity are influencing or affecting the research process and the participants. This self-check would mean that one would need to distance personal actions when the risk of data distortion is perceived. Mercer (2007) advocates insider research by mentioning Hawkins' (1990) case, a head of school while researching his own school and who 'suggests that a participant-observer who continues to perform his or her normal role within an institution will have more impact on the research than an outsider consultant' (Mercer, 2007, p. 6). This is attributed to the capacity to integrate in real life and have less probability of conditioning the research setting. The debate about insider and outsider research is ambivalent, however being aware of its advantages and disadvantages to mitigate interferences is critical. Mercer (2007) outlines the advantages and disadvantages classifying them under access, intrusiveness, familiarity and rapport.

Therefore, considering this complexity of the research the researcher would need to avoid contaminating the study by being careful not to influence participants' behaviour in making explicit the research questions. Moreover, his multiple roles will need to be explained to the participants and make clear that the research will not jeopardise any future professional relationships. Nonetheless, awareness that 'people's willingness to talk to you, and what people say to you, is influenced by who they think you are' (Drever, 1995, p. 31) is also important. The staff have a good relationship with the researcher as a leader, which augurs well in terms of rapport. Thus, democratic and collegial practices are paramount in respect to his leading role where participation and consensus will be the main thrust of any decision making. In such a context, expertise is widened and 'judgments and decisions are based on the power of the argument rather than the positional power of the advocates' (Cohen, Monion & Morrison, 2017, p. 455).

CONCLUSION

The above proposals, theories and discussions are not free from challenges that will need to be understood and addressed. It is conceptualised that throughout the research timeline there will arise various challenges which may be cognitive, relational, motivational, strategic, technical and temporal. Nonetheless, by applying the same principles outlined in this document and by positioning myself as an educator in search of growth, who faces conflicts and challenges daily, this work is viewed as a collaborative attempt to introduce an alternative approach to PLD whilst contesting constructed beliefs that may inhibit better learning experiences. Through a concept of maximisation both failures and successes will be treated alike as they both contribute to learning. Furthermore, as Albert Einstein stated: 'we cannot solve our problems with the same thinking we used when we created them' (Mielach, 2012). Recognising the complexity of PLD, this research endeavours to contribute to the educational community by providing valuable insights for a better future of learning.

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Section III

LEADERSHIP, TEACHER AGENCY AND PROFESSIONAL LEARNING

The Power of Willpower – A study on the role and importance of Willpower as perceived by Maltese Educational leaders.

Rose Anne Cuschieri

Abstract

The role of willpower in leadership seems to be very under-researched and mostly overlooked by researchers (Karp, 2015). Yet, being a quality that predicts positive outcomes in many areas of life (Baumeister & Tierney, 2011), and bearing in mind that undeniably willful leaders achieve results (Bruch & Ghosal, 2004), led me to delve into the importance of willpower in acts of educational leadership. Inspired by the work of Karp (2015) and personally being a great believer in the importance of willpower in people who occupy leadership posts, I embarked on a study of this phenomenon among leaders in the field of Maltese education. The cohort included people who form part of school management teams in Maltese Church schools, but also national policy makers, and people who occupy topmost positions in the Maltese educational system. Using a grounded approach, through in-depth interviews and questionnaires, my study delves into how these educational leaders perceive willpower; how this affects their performance and to what extent and in which situations leaders exercise willpower; what aspects of the participants' personality characteristics influence willpower abilities and vice versa; how leaders try to develop further their willpower and how they deal with negative thoughts; and finally how leaders understand the process of willpower. Results reported in this paper show that willpower is certainly an important capacity for leaders, influencing human dynamics and situational outcomes. It is also a dimension which gives people that extra energy which puts impetus in their roles and behaviour. Evidently, willpower is a phenomenon exercised by many, to some degree or another, but which presence is overlooked or underestimated. It also transpires that willpower can also be dangerous at times if taken to an extreme. Much more is needed to be researched in this particular area of leadership. This research will potentially add on to the available data on the topic and potentially open new doors for further research.

Keywords: Willpower; leadership; Volition; Personality.

Introduction

Willpower is a quality that predicts positive outcomes in many areas of life (Baumeister & Tierney, 2011). Yet, in spite of the fact that many researchers argue that willful leaders achieve results (Bruch & Ghosal, 2004; Collins, 2001), in leadership research, willpower is a capacity that is less studied, and mostly overlooked by researchers (Karp, 2015). Against this background, and being myself a great believer in this personal quality, led me to delve into the importance of willpower in acts of educational leadership.

The prime objective of my research was to investigate whether willpower is somewhat related

to leadership, investigate its importance in this field, and understand better the phenomenon of willpower and how it is put to use.

What is Willpower

Willpower, or volition, is regarded as the mental process by which an individual decides on and commits to a particular course of action. Willpower is the colloquial, and volition the scientific term for states of human will. It is commonly understood as purposive striving, and is one of the primary human psychological functions, besides affection, motivation and cognition (Karp, 2012).

Studies on willpower have a long tradition within the philosophical arena. While Nietzsche (1887) perceived willpower as an internal motivation and the main driving force in human beings, Schopenhauer (1818) believed that when people become conscious of their own self, they tend to realise that their fundamental qualities are endless urging, desiring, craving, wanting and striving.

In more recent definitions, willpower is considered as a mental activity that is personally controlled, and independent of a person's desires or dispositions (Ginet, 1990; McCann, 1998). It is considered as the capacity that bridges the gap between a person's thoughts and actions (Searle, 2001; Zhu 2004). Holton (2003) believes that people use willpower when they are faced with resistance or difficulty emanating from personal inclinations or desires.

In the world of psychology, willpower is one of the notions related to human actions which go back to the work of James (1902) and Ach (1910). In these studies, the primary concern was on the use of willpower and related human behaviour.

After World War II, interest in the topic of willpower decreased as academic research increasingly focused on themes of motivation. It was only recently that researchers in the field of psychology re-established an interest in, and a renewed relevance of willpower (Karp, 2013).

Some people tend to confuse willpower with motivation (Karp, 2015) or to consider them as synonyms. The distinction between willpower and motivation can be traced to a debate in Europe at the beginning of the 20th century between two psychologists: Narziss Ach and Kurt Lewin. Ach's (1910) research at the time concluded that before a person's intention could become a deep personal commitment, he or she had to cross a kind of threshold. Ach distinguished motivation as the state of desire **before** crossing this threshold, and willpower as the state **beyond** it, when an individual converts the wish of motivation into the will of resolute engagement (Karp, 2015). Lewin's (1951) field theory, on the other hand, denied that motivation and willpower were distinct. When the war ended, Ach's works were discredited, while Lewin was acclaimed for his theories. His influence is one of the reasons why concepts of leadership often focus on motivation as the most important driver in leadership (Karp, 2016). However, one of Ach's important conclusions that an unwavering commitment lies behind decisive action like a process for changing intentions into actions, left a salient imprint. Certain times it is sufficient for people to have a desire to spur them to action. But it is believed that very often, people need to make a conscious, determined effort to turn an intention into action. Rejecting the notion that leaders are born with certain personality traits, Bennis (1989) argues that the real source of leadership lies within the person. He believes that leaders develop through their life experiences and are shaped by their crucibles: leadership has to do with who people are as human beings, and with the forces which shape them. In fact, he indicates that the process of becoming a leader is much the same as the process of becoming an integrated human being.

Leadership is about getting things done (Eccles & Nohria, 1992), and obviously, to get things done, leaders must act themselves and mobilise the collective action of others. In order to close the *knowing-doing gap* (Pfefer & Sutton, 2000) it is inevitable that leaders need to execute determined action to achieve some kind of purpose, often against difficult odds (Bruch & Ghoshal, 2004). Although external challenges in an organisation can make this difficult, the most critical barrier is often not outside the individual, but inside (Karp, 2016).

Research indicates that leaders need more than motivation to spur actions (Bruch & Ghoshal, 2004). Difficult challenges underscore the limitations of motivation, and leaders need to rely on their willpower, according to these researchers. Therefore they argue that willpower goes a step further:

“Willpower – the force behind energy and focus – goes a decisive step further than motivation. It enables managers to execute disciplined action, even when they are disinclined to do something, uninspired by the work, or tempted by other opportunities.” (Bruch & Ghoshal, 2004, p.13)

Willpower therefore seems to figure in when leaders face some kind of challenges, while simpler tasks do not engage the will with the same intensity. Ambitious goals, long-term projects, high uncertainty, extreme opposition, deadlines, changes and challenge are examples of forces that stimulate willpower. Willful leaders tend to overcome such barriers, by dealing with setbacks and persevering to the end. Barker (2001) states that the small elements by which people are moved, motivated and stimulated in organisations, are their individual will, values, needs and a sense of purpose or direction.

Research Questions

The overall research questions in my study were

- Is willpower an important capacity in acts of educational leadership?
- If so, how are we to understand the process of willpower, its use and development?

Two prevalent arguments were dominant in this research:

1. Leadership must be understood as a process and not merely as a function of position (Gemmill & Oakley, 2002). Challenging, event-driven situations create a need for leadership and provide the context for acts of taking or losing leadership. In such acts, the willpower of those taking charge plays an important role.
2. Willpower is a biological instinct and a mental capacity that may be developed (Karp, 2012). It tends to follow predictable paths, and there are generic strategies available to leaders who want to enhance the use of their willpower (*ibid*).

Methodology

Using a grounded approach, through in-depth interviews and questionnaires, my study delved into how these educational leaders perceive *willpower*; how this affects their performance and to what extent and in which situations leaders exercise willpower; what aspects of the participants' personality characteristics influence willpower abilities and vice versa; how leaders try to develop further their willpower; how they deal with negative thoughts; and how leaders understand the process of willpower. This study also aimed at exploring the relationship between the degree of

a person's willpower as compared to social position and status. This was of particular interest to help me establish whether willpower is a capacity typical for people in leadership positions.

These particular areas of willpower were studied by Karp (2012) who tried to understand what constitutes acts of leadership from the point of view of the leaders themselves, not the followers.

His findings indicate that acts of leadership:

- emerge as a result of processes of social interaction in organisations
- are rare and subtle, and seldom come as a result of planned interventions, motivational techniques, or transformational behaviour.

Grounded theory, first devised by Glaser and Strauss (1967) is a methodology in which theory is derived from data that is systematically gathered and analysed. It emphasises the building, or discovery of theory, rather than its testing or verification. Thus Grounded Theory is based on the 'logic of discovery' (Strauss & Corbin, 1998). The grounded theory approach adopts a "systematic set of procedures to develop an inductively derived grounded theory about a phenomenon" (Strauss & Corbin, 1990, p. 24). The procedures are founded on the "systematic generating of theory from data, that is systematically obtained from social research, and offers a rigorous, orderly guide to theory development that at each stage is closely integrated with a methodology of social research" (Glaser, 2002, p.2). The method is designed to build a new theory that is faithful to the area under study and that illuminates a particular phenomenon. The constructs are grounded in the specific set of data the researcher collects, and the usefulness of the constructs can be tested in subsequent research (Gall, Borg & Gall, 1996). This qualitative method is effective because it helps develop the building blocks for empirical research that can be generalised (Brown, Stevens, Troiano, et al., 2002).

Following a pilot study, Interviews were carried out with 20 respondents, following strict ethical boundaries due to the sensitivity of the topic. The interviewees included Heads of School from the three different sectors (State, Church and Independent), service managers, Directors, the Permanent Secretary within the Ministry of Education, and the Minister of Education himself. The main issues which were elicited from the interviews paved the way for a questionnaire which consisted of 25 open ended questions and 5 close ended questions. Respondents, who all came from the educational field, were given the option to answer either a printed version of the questionnaire and then return it in a sealed envelope, or else answer the questionnaire online through a given link. The questionnaire was answered by 120 (82 Females and 38 Males) participants.

Positionality

The researcher's position should be made clear from the very onset of the study (Wellington *et al.*, 2005). Being myself a leader of an educational organisation, and also a strong believer in a person's willpower, I had to be aware of any potential bias in favour of this personal capacity. This was because my positive bias could potentially affect what I considered as relevant data. My bias could also influence my adopted method of data collection and analysis.

Findings

What do you understand by Willpower?

At the very onset of the study, respondents were asked to state what they actually understand by

the term *willpower*. The most prevalent word which came out in the responses to this question was: **determination** followed by **perseverance and motivation**.

Answers also included:

- *“Ability to control oneself and your actions” (Head of School)*
- *“The need to keep going notwithstanding all the obstacles in your path” (Head of school)*
- *“The internal strength to stand by one’s principles and to act accordingly; it is resilience in what one wants to achieve” (Head of department)*
- *“Adamant to look forward, to tap in inner energy when faced by adversity ... never to give up” (Asst Head of School)*
- *“The strength and determination to persevere whatever the world throws at you”. (Service Manager)*
- *“Willpower in my understanding is an underlying psychological momentum in everybody’s personality that helps us to decide for ourselves (e.g. motivation, self-control) or as members in a social system.” (Service Manager)*

How does Willpower affect your work

Evidently, willpower was perceived by many of the respondents to be a way of achieving objectives and results, although they occupied different educational roles.

- *“It gives me the strength to achieve my goals it is the major driving force, nourished by values and principles; Lack of it brings demotivation and a risk to move with the flow.” (Head of School)*
- *“It is part and parcel of my stamina and resilience; willpower is a determining factor in the life of a school. No matter how much a HOS uses distributed leadership, the HOS still needs to be the driving force. One’s willpower is tantamount to take decisions and implement such decisions.” (Head of Department)*
- *“I face challenges with an optimistic view and strive to achieve every possible positive result no matter the consequences.” (Education Officer)*

To what extent do you put Willpower to use?

Educational leaders seem to be making constant use of willpower in their work:

- *“Everyday of my life, especially when attaining a goal which may be perceived as difficult; when my willpower is low, I only do the things I like to do; when my willpower is high, I also do the things that I do not like doing but which still need to be done.”(Head of School)*
- *“Incessantly, to a varying degree.” (Head of School)*

Heads of schools, in particular, seem to need to fall back on a strong sense of “self” which allows them to renovate and sustain effective leadership across the different aspects of their organization.

In what situations, if any, do you find it indispensable?

From the responses, it could be elicited that there are particular instances when the need for willpower seems to be felt more:

- *“When there is negativity around you, or things are not going as planned or when*

it gives you good returns, be it motivating people or gains for the organization.”
(Education Officer)

- *“When I have a particular target to reach or when I am doing a new task on which I need to be focused.”* (Head of Department)
- *“In situations when I have to overcome my fear of public speaking..... it takes so much effort out of me!”* (Head of School)
- *“During every decision taken, every vision explored; in the initiation, implementation and institutional phases (according to Fullan) of any change process.”* (Head of School)

As stated earlier, leadership is about getting things done (Eccles and Nohria, 1992) and inevitably, to get things done, leaders must act themselves and be the main motivating source behind the behaviour, performance and attainment of their members of staff.

What aspects of your personality characteristics influence your willpower abilities?

The study now proceeds to start delving into the personal qualities of the respondents. Personal traits are believed to impinge on a person’s willpower (Karp, 2015) in a direct and inevitable way. For this reason it was important to find out from the respondents how personal characteristics impact on willpower:

- *“The fact that I am blunt, determined, not afraid to speak my mind. By being assertive and having a strong character, I have a strong will to move forward in life and never look back.”* (Head of School)
- *My main personal characteristics, namely conscientiousness, perfectionism, anxiety and (sometimes) low self-esteem, have a huge impact on my willpower.”* (Head of School)
- *“Self awareness, self discipline, decision-making, keeping focused, diplomacy..... impulsivity, creativity, ability to bring people together....I have them all and they all impact my willpower capabilities.”* (Service Manager)

Personality traits evidently featured prominently in these responses, to one degree or another. Inevitably, for the next question, willpower and personality needed to be switched.

How does Willpower influence your personality

The same question was now reversed, trying to elicit the ways how willpower impinges on people’s personalities:

- *“It makes me more unique and stand out from the crowd: achievement through willpower is rewarding to me as it makes me more assertive and strong, It helps me look at things in a positive way and it helps me overcome negative feelings.”* (Director)
- *Willpower gives me fulfilment derived from an upheld sense of drive, it reinforces my personality traits, and it helps me to overcome my weaknesses, for example, when I feel shy.”* (Policy Maker)
- *“It is like a driving force that is indispensable for effective decision making.”* (Education Officer)

Willpower is a quality which reinforces people’s personalities and pushes their behaviour towards accomplishments (Baumeister & Tierney, 2011). Most of the responses pointed in this direction.

Do you feel that willpower is important in your job? Why?

It is very striking how unanimously all respondents answered that willpower is an important element in their job as leaders:

- *“It is that edge that makes me exceed expectations. Every time I need to achieve an ambitious goal which at times may be hard to achieve, I fall on my willpower.” (Head of School)*
- *“I find it an essential component when dealing with difficult people; my job needs focus and determination too so I certainly need loads of willpower.”(Service Manager)*
- *“Yes, as willpower cascades on those around me and my goal becomes theirs..... Without it there is little or no dynamism.” (Head of School)*

How do you understand the process of Willpower

It is understood that Willpower influences thoughts, emotions, and desires (Karp, Laegreid & Tronstad, 2014). When asked how they understand the process of willpower, respondents answered that it creates more awareness of their own actions and beliefs It also helps them to find their inner strength, and acts as a source of motivation.

- *“It makes me more knowledgeable and aware of my actions and beliefs.” (Head of School)*
- *“Working in a good working environment and being surrounded with positive people will help you to have the will power to always do better.” (Head of School)*
- *“Facing a problem, seeking ways to solve it, seeking inner strength in order to find enough energy to solve it.”*
- *“If used in a positive way, it can increase an individual’s motivation to succeed.” (Service Manager)*

Willpower seems to provide an effective tool for creating a conscious effort to deconstruct issues, attributing them value, seeking conviction and reconstructing them strategically and logically with the intent to accomplish. Reflection on reality comes first, analysis follows. Applying willpower to act is the final stage. Evaluation follows and the cycle is repeated.

How do you try to develop it further?

Karp (2015) says that willpower is a skill which can be developed further if the right attitude and disposition are adopted. Participants were asked how they try to develop, and even potentially ameliorate their sense of willpower:

- *“By believing in myself, being assertive, also by listening to what others think and then making my own conclusions.” (Service Manager)*
- *“By occasionally raising the bar. The more I practice my willpower, the more it is reinforced. I am also a reflective person and I try to be aware of my internal processes.”(Policy maker)*
- *“I try to surround myself with positive people... I try to think logically and take the necessary decisions regarding the way forward.” (Head of School)*

How do you deal with Negative Thoughts

Negative thoughts seem to work adversely on willpower. For this reason respondents were asked

to say how they manage their negative thoughts. Putting emphasis on the positive, *seeing the cup half full*, seems to be the commonest trend:

- *"I try to concentrate on the positive and be rational. I choose to stay focused and think positive." (Head of Department)*
- *"By building bridges rather than walls!" (Head of School)*

Do you believe that willpower can have an adverse effect in a person's life?

The majority of respondents feel that willpower **can** have a disadvantageous effect if taken to extremes. Like any other skill in life, it has to be kept perspective because:

- *"If you risk too much without really identifying the consequences, then yes, it can get out of hand." (Policy Maker)*
- *If not controlled, if it is excessive, verging on stubbornness and over ambition, then things can go overboard." (Head of School)*
- *"If it becomes an obsession and is not balanced with good listening and reflection techniques, then it can become dangerous." (Head of School)*

Would others say that you have a lot of willpower

It was enticing to see how respondents think that they are perceived by others: whether having strong willpower or not. Ninety-five per cent of the respondents thought that they are perceived by others as having a lot of willpower. When asked why, some of the prevalent reasons were:

- *"Probably because I have proved it on various occasions... it seems I come across as a strong and assertive person and always achieve my goals. At least that is what colleagues tell me." (Head of School)*
- *"I always do whatever is asked of me irrespective of all constraints; so for sure, my members of staff believe that I have a lot of willpower and I constantly put it into use." (Head of School)*
- *"Because they see me enthusiastic in everything I do; once I believe in something they know I will proceed forward." (Service Manager)*

Do you see yourself as disciplined and as having good self-efficacy?

Again the vast majority (95%) of respondents said that they perceive themselves as disciplined and as having good self-efficacy, because:

- *"I believe in commitment, loyalty and balance. I think rules are there to be followed: this is the only way to avoid conflict. I prioritise work and ensure it is done to the best of my extent. I also know when to stop and say no." (Education Officer)*
- *"I deliver, no matter what; I manage time and do not let work take over my life. I tend to be very independent: I make my own milestone." (Policy Maker)*
- *"I believe I have the will power and belief in myself for self-achievement. I keep my word: plan and implement decisions and try to involve others as much as possible in the decision making processes." (Head of School)*

These responses corroborate the replies of the previous question as self-discipline, self-efficacy and willpower seem to go hand in hand.

Do you change your behaviour according to your principles or values?

Barker (2001) adds that in organisations, people are moved and instigated by their individual wills, values, needs and a sense of purpose or direction.

Eighty five per cent of the respondents said that their behaviour is based on what they truly believe in:

- *“I always do things depending on my values and principles, and not on what others try to impose; I believe in who I am and in what I stand for.” (Head of School)*
- *My values and principles are not negotiable. This consistency provides the guiding light for decision-making.” (Policy Maker)*

Albeit society and culture may impinge on personal values, people with strong willpower tend to stick more to their values and to what they believe in.

Do you adapt your principles or values to your behaviour

This question was inserted to triangulate the responses of the previous question. Yet the majority corroborated their answers by answering in the negative:

- *“My behaviour reflects my principles and values; my principles are what they are and values do not change.” (Head of School)*
- *“Behaviour should be congruent with principles and not the other way round.” (Policy Maker)*
- However six respondents said that they **do** adapt their principles to their behaviour. This comes in sharp contrast to the rest of the respondents who very strongly answered in the negative:
- *“Most of the time I hear the words in principle I agree but... then the decisions taken are different. The behaviour should be seen within a context.” (Head of School)*
- *“Adaptability is required in a flexi society but it is different from compromising.” (Policy Maker)*

Some Reflections

Results so far show that willpower is certainly an important capacity for leaders, influencing human dynamics and situational outcomes. It is also a dimension which gives people that extra impetus which puts energy and stamina in their behaviour. Evidently willpower is a phenomenon exercised by many, to some degree or another, but which presence is overlooked or underestimated.

Bennis (2010) says that people are the authors of their lives, and this involves a lifetime of commitment and learning (George, 2015). People make dozens of choices every day, many of them even subconsciously or intuitively, trying to learn from those that turn out to be mistaken. Ultimately people’s lives are an expression and the result of the choices they make. But the impact of these decisions on other people cannot be overlooked or discarded, especially when leaders are involved.

Conclusion

Much more is needed to be researched in this particular area of leadership. This research will potentially add on to the available data on the topic and possibly open new doors for further

research. Leadership is continually taken and earned, in particular situations where people in organisations are in need of being led. It is the leader's ability to deal with resistance and opposition and many hypothesis say that it is the strength in the form of willpower that is usually being tested in such situations.

It would be ideal to investigate further to what extent willpower is an important capacity in leadership processes. It would also be interesting to understand even further how willpower is exercised by leaders in different walks of life, how willpower is put to use, and how it can be further developed as a personal and a collective capacity.

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Section III

LEADERSHIP, TEACHER AGENCY AND PROFESSIONAL LEARNING

Catholic Schools: their Identity and Mission

Alan Scerri

Abstract

The purpose of this study is to investigate the identity and mission of Catholic schooling within secularized and pluralistic societies. The institutions who survived and managed to overcome the test of time even in unfavourable circumstances, maintain a culture and ethos inspired by a particular set of values underpinned by the teachings of Jesus Christ. These values are not prescribed in a set of universal rules for all Catholic schools to follow. They come across in the attitudes and daily dealings of the members. This echoes the teaching of the Catholic Church who holds that the ultimate aim of education is the holistic formation of the person which leads to action inspired by the Gospel values. However, within a secularized and liberal society such discourse can be considered as contentious. Liberal educational philosophers argue that education must be left free of any values and that students must be left free to choose which values to adopt. Otherwise they claim, education verges on indoctrination. Conversely, other studies (McDermott (1997), McLaughlin (1996), Mitchell (1982), Grace (2002) maintain that every facet of school life is laden with values and value learning is transmitted through the everyday life of school. Values of some kind are always passed on to students whether secular, Christian or liberal. It is with this backdrop in mind that this study has been undertaken: Four Catholic schools -two in Malta and two in England- participated in this study. In spite of the cultural differences between Malta and England, similar patterns in the way students were familiarised with the living out of the Catholic faith transpired in the four schools. Four aspects of Catholic schooling were identified in the study. These are, a sense of community, worship, a sense of inclusion and service towards all especially the poor. These four Catholic schools were characterised by a vocation of service and ministry towards their school communities and eventually the community at large. It is this sense of ministry rather than mastery that bestows on the world of Catholic education a voice which beacons to vocation.

Keywords: Catholic schools, vocation, evangelization, indoctrination, ministry, community, school (catholic) culture.

The identity and mission of denominational schools especially Catholic schooling, often are a source of contention within secularized and pluralistic societies. These institutions who survived and managed to overcome the test of time even in unfavourable circumstances, maintain a culture and ethos inspired by a particular set of values underpinned by the teachings of Jesus Christ. The universality of these values hones a strong sense of cohesiveness within these schools and offer a sense of purpose to all the members. These values are not prescribed in a set of universal rules for all Catholic schools to follow. On the contrary, they come across in the attitudes and daily dealings of the members, eventually shaping the culture within these schools.

Methodology:

A case study approach within four Catholic schools, two in Malta and two in England, was pursued to make some reflections on the universalities of values dissemination since the contexts are those of Malta's widely practised Catholicism and England's greater secularity. Five research questions were identified:

- How does the ethos of Catholic schools distinguish itself?
- How do Catholic schools, as academic communities, live out their faith dimension?
- How does the teaching on social justice of the Catholic Church emerge in the inclusive aspect of these schools, the enrolment criteria in recruiting students and staff, and the relationship with members of other faith denominations?
- How is child-centred education embraced by Catholic schools?
- Which style of leadership is synonymous with a Catholic school setting?

Examination of the five research questions, through data gathered from interviews, questionnaire, school literature and observation in the four schools, reveals that there are a number of similarities among these schools in carrying out their mission in promoting the Gospel values. I can confirm, through the data collected, that the four Catholic schools, irrespective of their cultural background, embraced similar patterns in living and promoting the Catholic faith. This is seen in the way they lived out their ethos, through a life of prayer and the celebration of the sacraments, a sense of inclusion and service towards all and a sense of dignity, self-worth and respect towards every person who is seen as an integral part of God's creation.

Four main aspects emerged from the analysis of the data, which I believe are the four central underpinnings that give meaning to the activities and the *raison d'être* of the four Catholic schools. These findings seemed best grouped into categories delineated here as:

- a sense of community
- a sense of nurturing the faith
- a sense of service
- a sense of inclusion.

Communitarian schools

From all four schools emanated a sense of community where:

people know and trust each other and...draw strength from and support one another; a platform for faith and commitment...an easy place to believe and to live out one's faith...a place characterized by service, where the individual's needs are appreciated, where responsibility is shared, and where the needs of the local community are recognized; a place where the members...discover how to live more freely...learn to make choices and...develop a moral sense (Konstant, 1997, p.38).

This emerged through the way the four schools proposed and encouraged their members to live out values of tolerance, compassion, kindness and their ability to see the best in others. As pointed out by interviewees, this was more than a feeling one encountered within the schools. It was a way of life, inspired by the Gospel value of love and a call to be living witnesses of that love. These values were not prescribed in a set of universal rules for all Catholic schools to follow. Instead, they came across in the attitudes and daily dealings of the members, especially in living out values of compassion, tolerance and forgiveness. This echoes the teaching of the Catholic Church

which holds that the ultimate aim of education is the holistic formation of the person which leads to action inspired by the Gospel values (The Religious Dimension Of Education In A Catholic School, 1988, par.1; Duminicio, 1999). The schools' stakeholders maintained that, as members of a Catholic school, they were entrusted with a mission to give a Christian perspective to all that they do. This reflects the teaching of the Catholic Church where the Catholic school is considered not only as a place for education and intellectual endeavour, but a place of "evangelisation, of authentic apostolate and of pastoral action"(The Religious Dimension Of Education In A Catholic School, 1988, par.33).

Within the four Catholic schools, the school community went beyond the needs of their particular school setting. A rising awareness in the members, especially of the students, of the different shades of social poverty in society at large, was part of their sense of community. The late Cardinal Basil Hume argues that the Catholic School, should 'demonstrate a way of life... should be a witness to society... should practise what it preaches about the dignity and worth of the individual' (Valuing Differences, 1998, p.50). In all four schools, funds were raised so as to help those in need to lead a more decent life. In the two English schools, the senior students were encouraged to do community work among senior citizens, refugees and those living in substandard conditions. Supporting communities in the missions through fundraising or community work during the summer months was common among the senior students within the two English schools. This is reminiscent of the teaching of Pope Paul IV in his Encyclical *Populorum Progressio*, where he contends that the Gospel, interpreted in the light of the social teaching of the Church, is an urgent call to promote "the development of those people who are striving to escape from hunger, misery, endemic diseases and ignorance; of those who are looking for a wider share in the benefits of civilization and a more active improvement of their human qualities; of those who are aiming purposefully at their complete fulfilment" (1967, par.1).

Aspects of community were also traced in the four schools' commitment to offer a holistic formation to every member within the school community. It is the belief of the four schools that every individual has a right not only to develop academically but spiritually, morally and ethically as well. This is reflected in the teaching of the Catholic Bishops of England and Wales in their commentary *The Common Good in Education* (1997), where they reiterate that education is mainly about the welfare and flourishing of every human being. It is concerned with the development of the whole person made in God's image and therefore duty-bound to prepare young people for the whole of adult life. According to the schools' stakeholders, a holistic formation embraces both the cultivation of the mind as well as that of the spirit. One does not preclude the other but both contribute to the thorough formation of the children within the four schools. Cultivating one aspect at the expense of the other hampers the holistic development of the students, interviewees argued. Catholic education must begin and keep itself focused on the principle that "every educational programme is intentionally directed to the growth of the whole person" (The Catholic School, 1977, par.29). This is also evidenced in the literature which shows that the aim of education within Catholic schools does not belong to the private domain. It is a common endeavour, aimed towards the involvement of the students later on in life to get committed towards the Good that is common to all. This is supported by the teaching of the Catholic Bishops of England and Wales when they state that 'education is not a commodity to be offered for sale... funding solely according to the dictates of market forces is contrary to the Catholic doctrine of the common good...[as]...education is about the service of others rather than the service of self' (Catholic Education Service, 1997, p.13).

A further noteworthy element of community was the sense of welcome and hospitality within

the four schools. The evidence that emerged from the research study shows that even though to different degrees, all four schools cultivate a friendly and an amicable setting. Interviewees claimed that it is difficult to put this feeling in words though one can sense it in the relationship among the members and the school setting. Some said that this might be the result of the sense of community within the parish most of the students are acquainted with as from a young age. This is in tune with McClelland (1996) who contends that Religion in Catholic schools is not and cannot be confined to set periods of formal instruction. It is something to be lived out and witnessed by all the members of the school community in their daily relationships and commitments both at school and in the wider community.

Another element that nurtured this sense of community was the presence of the community of nuns within two of the schools, one in Malta and one in England. This was highlighted by a number of interviewees who claimed that the nuns' commitment, sense of service and dedication was an added value to the school's ethos. They passed on to their respective schools a sense of community based on dedication, respect and care, inspired by a life of prayer.

However, within the two Maltese schools, St. Jude and St. Mary, esteem and respect did not always feature, mainly in the relationship between some members of staff and the students. Interviewees claimed that within St. Jude some of the teachers' attitudes were in contention with the notion of respect. Friction emerged between some members of staff and some of the students, particularly those with challenging behaviour. Instead of being treated with dignity and care, these students were called names and often put down in front of the whole class by being asked to leave the classroom. This brought about a sense of anguish and bitterness in these students.

Within St. Mary too, evidence from the research study showed that some of the newly-enrolled members of staff did not always show the same dedication and commitment as their seniors. Though interviewees said that they were professional in their work, some of them found it difficult to dedicate extra time to students who needed support and assistance. This contrasted with the sense of community for which both the literature and the research studies claimed Catholic schools are renowned for. According to interviewees, such an attitude differed from the notion of Catholic schools as hospitable places, "where students are invited to go beyond rhetoric and get involved in action for justice and the poor" (Duminuco, 1999, p.154).

While I am aware that one cannot make any generalizations from this study, however, one can speculate on the different ways the two English schools and the two Maltese schools enhanced a sense of community among their members. In a society like Malta where Catholicism is generally adhered to, there can be a tendency among the members to be less aware of the need to demonstrate Catholic values as strongly as might be the case within a secular society like England, where the living out of Catholic values is always under question. Another aspect worth mentioning that featured more in the two Maltese schools than their English counterparts was that Maltese teachers found it demanding to have to deal with being both teachers and leaders of extra-curricular activities, a conjoint responsibility that did not appear to be demanded to the same extent in the English schools. This might be one of the reasons why newly enrolled teachers at St. Mary's were reluctant to dedicate their time to students who needed extra support and assistance. However, this overburden of work that teachers had to undertake within the two Maltese schools does not warrant them to belittle the students.

Worshipping schools

Another significant aspect that emerged from the research study was the way the four schools

promoted and nurtured the Catholic faith among their members. Acts of worship, mainly the frequent celebration of the Eucharist and other liturgies, like retreats for staff and students, penitential rites, Lenten sermons and special celebrations on days of obligation, were among the rituals common to all the four schools. This is consonant with Groome's statement that the awareness of the presence of God as mediated by the celebration of the sacraments in particular the Eucharist and the sacrament of Reconciliation is what makes a school culture distinctively Catholic (Groome, 1996). The reverence in which these acts of worship and moments of prayer were conducted moulded a sense of the sacred within the members. This proves McLaren's perception that daily prayers and religious activities "spiritualize the ordinariness of the plodding school day and serve to sanctify the temporal order of the suite" (McLaren, 1986, p.68). Such a setting offered not only an experience of God to each member within the school community, but also made each of the four schools feel as one with the universal Church. This could be seen especially in the link of the two English schools with their local parish. Apart from the frequent visits by the parish priest or the local clergy, within St. Bridget, students were encouraged to attend programmes to serve as catheticists in their local parish. This is in line with the teaching of the Catholic Church, that in Catholic schools, "catechesis should not be concerned only with the imparting of a body of truths, but rather the communication of the loving mystery of God in view to initiating the hearers into the fullness of Christian life" (Catechesi Tradendae, 1979, par 18).

Apart from the rites and rituals, the four schools strove to make of the school liturgies and the sacramental life, a positive and relevant experience for the students. Chaplaincy teams within three of the four schools were responsible for organising the schools' liturgies. Students formed part of these teams, together with some of the lay teachers and the school chaplain. This helped to bring a dimension to the school liturgy that was more appealing and meaningful to the lives of the students. As a result, interviewees argued that well-organised rites and rituals, added a different dimension to their faith. It was spiritually enriching for the school community as a whole. This is supported by Cook who claims that the purpose of Catholic schools springs from the belief that Christianity is more than a creed. It is substantially a way of life (Cook, 2001).

Within the two English schools and one of the Maltese schools, St. Mary, a school chapel occupied a prominent place within the school building. Within St. Jude, because of limited space, the school could only avail itself of a school prayer room. School chapels offered an opportunity to the school community to meet together for prayers and acts of worship, both as a school and privately, for moments of recollection and prayers. Within both St. Mary, one of the Maltese schools, and St. Bridget, one of the English schools, the community of nuns invited students and their families to join them for prayers during special times like Lent and Advent. This helped make the schools not only academic communities but also communities of faith, united in prayer with the whole Catholic Church. This is substantiated by Arthur's argument that within a Catholic school, Christianity is expected to be lived, reinforced and modelled each and every day (Arthur, 1995).

The faith aspect within the four schools was not only confined to well-organised liturgies and acts of worship. A noteworthy aspect within the four schools was the way students were encouraged to go beyond the confines of their schools and get involved in social issues of peace, justice, solidarity, nature and life in general. According to interviewees, this helped the students not only to grow in their faith but to participate in the fullness of Christian life.

However, within one of the Maltese schools, the worshipping dimension and the celebration

of the faith did not feature as prominently as in the three other schools. Within St. Jude's, the presence of the school chaplain was irregular and school liturgies were not well-prepared. This contradicts the belief of the Catholic Church, that the schools under her care should not only be attentive to the needs of today's youth but they must also be illumined by the Gospel message (Congregation for Catholic Education, 1988). Consequently, students did not find them appealing and relevant. A team of lay teachers was set-up to form the chaplaincy team as they believed that the concern of the teacher in Catholic schools should not only focus on the formation of wise human beings but also on the ability "to craft environments and experiences that mediate a particular viewpoint concerning the purpose for and proper end of human existence" (Jacobs, 1997, p.48). However, interviewees were of the opinion that the presence of a school chaplain was important, especially as the school fell under the responsibility of a Religious community. The school's Head Teacher tried many times to raise the issue with the Founding Religious Community but no priest was assigned to the school. It was a common feeling among the school community that the Founding Religious Community should take a more active responsibility for the spiritual aspect of St. Jude's.

A noteworthy aspect which was missing in St. Jude's was the presence of a school chapel. As the school is an inner-city school, space was very limited and the school had to avail itself of a small prayer room. Even so, it was mostly closed and hardly made use of during prayer sessions. It was a general feeling among interviewees that school liturgies and religious activities were lacking in some respect. 87% of the students participating in the questionnaire agreed that school liturgies were not so frequent in the school and most of the time they lacked thorough preparation.

Within St. Mary's, though the school had a strong chaplaincy team and school liturgies featured well on the school calendar, the response from a considerable number of interviewees was not supportive. Interviewees, especially teachers engaged with the senior classes claimed that often they had to juggle between the school's syllabi and the liturgies and spiritual activities. They argued that this caused a lot of unnecessary pressure both on the members of staff and the students. They often had to stay after school hours to help students keep up with their studies and school work. This may be indicative that at St. Mary School, on a number of occurrences, academia took precedence on other school activities, including the liturgies and worship. This contrasts with both the literature on Catholic schools and the teachings of the Catholic Church which argue that the right balance is to be maintained between the religious and the academic in Catholic schools as "on the one hand a Catholic school is a 'civic institution'; its aim, methods and characteristics are the same as those of every other school. On the other hand, it is a 'Christian community', whose educational goals are rooted in Christ and his Gospel" (The Religious Dimension Of Education In A Catholic School, 1988, par. 67).

Serving schools

A sense of service was another noteworthy aspect that transpired within the four Catholic schools. Many of the interviewees argued that each child within the school was looked upon as a gift from God, a person who had the right to be cared for and educated. In all four schools, children were encouraged to excel not only academically but in whatever they did. All four schools devised programmes based on a points system or awards, so as to celebrate the children's achievements and successes. All four schools were concerned with enhancing and nurturing the talents, skills and values of their students. Recognition was shown not only to those who managed to achieve but even to those who were outstanding in their effort but maybe failed to achieve. Commitment and effort were acknowledged and celebrated at par with academic achievements. These encouraged students to feel valued and have faith in their abilities. This reflects the teaching of the Catholic

Church for whom professionalism and excellence among the teachers reside in the sharing, with love and dedication, of their expertise with the students in their care (Jacob, 1998).

Another important aspect that reflected a sense of service within the four schools was the pastoral care towards students, especially those coming from difficult family backgrounds and students with challenging behaviour. A sense of concern and support towards these students was evident in the four schools. This is in tune with the Catholic Church which teaches that teachers do not merely instruct youths; they educate youths, drawing out of them the values and the self-discipline required of them in order to participate as responsible citizens' (Congregation for Catholic Education, 1982, par.16). When issues of behaviour cropped up, things were discussed and reasons identified so that help was offered to the students concerned. Without condoning bad behaviour, students were cautioned with dignity and respect. A noteworthy characteristic within the schools was the concern of a number of interviewees towards these students and the time they dedicated in offering them support outside school hours.

However, within St. Mary, interviewees claimed that some of the teachers assumed an unfair attitude towards low achievers. They passed comments in front of the whole class and resorted repeatedly to punishments. It was also maintained that not enough sensitivity was shown towards students with difficult behaviour by some members of staff. According to interviewees, dealing with such students required a more careful and sensitive approach from teachers. This confirms Sullivan's argument which states that students "should experience acceptance and affirmation as persons with an inalienable dignity" (Sullivan, 2000, p.190). However, the claim that some members of staff adopted a negative approach towards these students was not supported by the results obtained from the students' questionnaires. Only an average of 6% of the participants held that within St. Mary's students were not given the support and attention they required.

Inclusive schools

Inclusion was another aspect within the four schools which was investigated by this research study. Students who suffered from some kind of impairment, whether physical or academic, had their needs catered for by special SEN programmes devised in all the four schools. Students with learning difficulties were offered special programmes, together with support teachers, to help them follow their educational programme. Within the four schools, individual attention was provided, so that every student could excel according to his abilities. Students were encouraged to participate in different extra-curricular activities both at school and outside school and their achievements and successes were acknowledged and celebrated. Within the four schools, awards, points and certificates were conferred on students during special morning assemblies or during special school ceremonies depending on the system devised by each school. Though successes and achievements were acknowledged by the four schools, special consideration was given to the effort made by each student. This resonates with the teaching of the Catholic Church which states that "respect for others, a spirit of solidarity and service towards all, especially those in need, a sensitivity for justice and an awareness to be called agents of positive change in society, are among the values that the Catholic Church promotes among its members" (Congregation for Catholic Education, 1982, par. 30).

A further noteworthy sign of inclusion was the ballot system introduced by the Catholic Church in Malta in the admission of children. Both within St. Mary and St. Jude the intake took place through a ballot where equal opportunities were given to each child to enrol irrespective of his academic abilities or family background. Also, the enrolment of students and members of staff belonging to other faith denominations was a further evidence of the inclusive spirit embraced by

the four schools. Only St. Bridget, being a grammar school, enrolled students by academic ability through the 11+ exam. This, however, did not feature in the sixth form, where students coming from a difficult family setting or who were encountering social problems were enrolled in spite of not having the standard academic requirements.

The leadership style was another significant aspect of inclusion within the four schools. Leaders encouraged their members to show initiative and trusted them to make decisions. Members of staff were invited to take an active role and participate as a team in constructing a common vision for the school. Interviewees claimed that this was possible to materialise, as the members felt trusted, valued and empowered in bringing about change within their schools. This echoes the teaching of the Catholic Church which maintains that within Catholic schools, those called for a mission to lead are solicited to promote a community climate and to work in partnership with one another (The Religious Dimension Of Education In A Catholic School, 1988, par. 38, 39, 40). Consultancy and sharing of ideas among the senior management team and the staff were noticeable within the four schools, especially when school policies had to be devised. In this way, authority did not only reside with the Head Teacher but with every member of staff. This is in line with what the Catholic Church promotes in the organisation and planning of its schools, that is, 'collaboration', 'principles of participation', 'co-responsibility' and shared decision-making based on principles of 'subsidiarity' (Gaudium et Spes, 1965, par. 43, The Catholic School, 1977, par. 70).

However, within St. Mary's, in spite of the school's commitment towards inclusion, there was evidence of unfairness in the way students were treated. Main parts in the annual Prize Giving Ceremony and special prizes were often awarded to students whose parents were actively involved in the school. Interviewees claimed that the school was not doing enough to help slow learners and students who were encountering academic difficulties to cope with the daily demands of school life. It was argued that the school setting was geared for academically high flyers, who looked down on their peers who did not perform equally well academically. This is in contrast with the teaching of the Catholic Church which holds that Catholic schools should be places where the person of each member is looked at and treated with respect and dignity, that is with the reverence Christ showed for every human being (Elementary School Department, 1970).

Another aspect in conflict with the sense of inclusion was the nature of the school building within the two English schools. The building, both of St. Bridget and St. Patrick, made it very difficult for wheelchair-bound students to commute. Parts of the building were not accessible because of the flights of steps and winding corridors and there did not seem to be any immediate possibility of altering parts of the building because of the high expenses involved. There were instances where physically-impaired students had to be turned down, which were highly discriminatory acts for the two Catholic schools professing inclusion. Though, as already stated, generalizations from this study are difficult to pursue, one can speculate on the impact of the nature of the school building on the inclusion of physically-disabled students within the two Catholic schools in England and the two Catholic schools in Malta. In a society like Malta where the catchment area of schools is negligible and both State and Church-run schools enjoy a homogeneous level of education, preclusion of physically-disabled students, on the grounds of the nature of the school building, might not be a sensitive issue as in England where Catholic schools are heavily over-subscribed. However, precluding students from joining a school of their choice because of their physical disability, contradicts the Catholic Church's notion of the Common Good defined as 'the whole network of social conditions which enable human individuals and groups to flourish and live a fully human life' that is, an "integral human development" (Catholic Bishops' Conference of England and Wales, 1996, p.8).

Reflections

Examining in depth the four aspects of Catholic schooling that emerged both from the literature and the research studies, one can argue that Catholic education and its institutions are driven and inspired by a set of values that find their roots in the teachings of Jesus Christ and, consequently, those of the Catholic Church. The focus of these values is the person of every individual created in the image and likeness of God his Creator, the person's thorough formation and development. Enhancing a community climate through a sense of service and inclusion, especially of those who are weak, physically, culturally or emotionally, is an integral part of the mission of these schools, and it eventually instils the Gospel values in the members in whatever they do. Through their engagements, students are encouraged to be of service both to their local community be it the school or the parish, and society, by utilising their talents and knowledge for the good of all. This is further enhanced by a sense of the sacred manifested in a particular way in the liturgies and rituals that support and give meaning to all that is done within these schools.

Within a secularised and liberal society, such reasoning can be considered as contentious. Liberal educational philosophers argue that education must be left free of any values and that students must be left free to choose which values to adopt; otherwise, they claim, it becomes indoctrination. However, the literature and the research studies maintain that teaching in itself is never value-free. McLaughlin (1996) and McDermott (1997) claim that every facet of school life is laden with values and value-learning which are transmitted directly through teaching sensitive enquiry into moral issues, and directly, through the everyday life of the school and the relationship among the different members of the school community. Values of some kind are always passed on to students whether secular, Christian or liberal. The Catholic Church argues that every school and every teacher within the school is constantly proposing values to students (Congregation for Catholic Schools, 1982, par. 30). There is no education which is value free, as stated by a Head Teacher in a Church of England school in Eastbourne in East Sussex (Moorhead, 2007)

Every school transmits a faith of some kind. Even people who don't believe in God have a faith – they have a faith that God doesn't exist. People say: how dare you push your faith at young people? But a head who doesn't believe is still a head with a faith.

According to this Head Teacher, supporting students within faith schools to live out the values they have received at home does not warrant being labelled as indoctrination. Mitchell (1982) argues that for students to be critical and creative they need to be offered a framework of beliefs and values within which they can grow. Consequently, as they grow older, they can consciously choose to reject or maintain these values. From a young age, children need to be offered a culture that gives them a sense of security and self-worth. The Swann Report, *Education for all*, claims that fostering a multi-racial understanding is achieved when children are assisted “to become secure in their cultural and religious roots” (Department of Education and Science, 1985, p. 502). The more the students feel comfortable with their own religious identity, the less inhibited they are to relate to other denominational groups (Short, 2002). Evidence in support of these claims comes from a study carried out among white racist youth in the London borough of Greenwich. It transpired from this study that the reason that white students identified themselves with racist political groups was because they lacked a culture with which they could identify themselves (Hewitt, 1996, p. 42).

Schools do not exist in a vacuum (Grace, 2002). External forces, being secular, humanist or religious play a part in the formation not only of the individual but also of society. We cannot be

immune from what the world around us considers to be of value. Living in a value less society is perilous. Etzioni (1993) claims that while in the sixties the values of the society of the time were deeply challenged, the problem that arose regarded the fact that the waning of traditional values were not followed by a solid affirmation of new values. Nothing filled the empty space that was left when existing institutions were erased. He contends that the result is “rampant moral confusion and social anarchy. We cannot tell right from wrong or back up what we do believe in” (Etzioni, 1993, p.23).

The difficulty arises with regards to the way values are to be promoted so as not to fall short of genuine transmission. McCauley (1970) makes the distinction between education and indoctrination. He holds that while the former is concerned with the transmission of knowledge considered to be of value through methods that do not hinder the individual from adequately evaluating the truth, indoctrination has to do with “the attempt to insinuate into the experience of the individual any belief...in such a way as to prevent these beliefs from being adequately evaluated by the individual” (ibid., p.136). Belief in this sense refers to a state of mind of the person which depends upon the acceptance of the belief on the evidence or authority of another. According to McCauley, “it involves the believer’s willing agreement to the belief in question” (ibid. p.133). Beliefs, cannot be forced upon a person, they must be implanted by providing the person concerned with some grounds for their acceptance. A person can believe falsely but one cannot know falsely. If what one claims to know turns out to be false, then one just does not know at all. In this way indoctrination cannot succeed by driving roughshod over the will. The indoctrinator must gain acceptance for his beliefs by argument and persuasion even if he presents his case to suit his aims. McCauley continues to argue that the essential feature of indoctrination is that it “deliberately violates the criteria of rational discussion with a view to achieving a favourable outcome for the position being advanced” (ibid., 134).

However, while the main concern of education is the transmission of knowledge, there are instances where education ventures in the realm of beliefs. In such circumstances, the aim of education remains always the promotion of something worthwhile considered to be of value. Where this is not possible, education demands a full and undistorted presentation of the evidence. Iheoma (1986) argues that education must rule out procedures of transmission which deny the learner the exercise of his freedom and autonomy. An educational process implies freedom and respect for the autonomy of the learner. A genuine educational process must “develop in the students the ability to think for themselves on issues of values and be able to make for themselves autonomous moral judgements” (ibid., p.143). The school has never been a place where knowledge is imparted in an objective, neutral, and value-free context. The human element in education and in the act of teaching can hardly be contested (Manely, 1996). Some would argue that the school should only be concerned with reason and instruction, while the affective is rejected on the pretence that it is considered to be part of the private and the individual’s personal life (Audiger and Motta, 1998). However, even with this framework in mind, it is difficult to deny that there are no constituent relationships that develop in the classroom or in the school corridors. Even the most rigid and detached teacher provoke feelings, and consequently attitudes, in students. Through schooling, education occurs in a context which is complicated and animated by human presence and human relationships. It is in and through these relationships that values and attitudes are confirmed or questioned (European Union, Commission of the European Communities, 2007, p.2).

This vision for education puts at the fore the belief in the intrinsic goodness of the human person and the trust in the potential of human capabilities of enhancing the goodness and beauty of life not only for oneself but for the whole of the human community (Delors, 1996). One of the aims

of education therefore, is to help students develop the ability and the necessary skills to think for themselves about issues regarding moral values and eventually be capable of making sound and autonomous value judgements. This pedagogical perspective to teaching and learning had also its influence on Catholic schooling especially after Vatican II. Teaching particularly in religion classes, through rote is seen as distorting the concept of faith. The aim of these schools is not to impose values on students, but “develop and nurture personal conscience as a guide to personal actions” (Bryk et al., 1993, p.112). Learning is seen as a tool which empowers the individual to think for himself without necessarily relying on any kind of authority (ibid., 1993, McLaughlin, 1996). An educational process implies freedom and respect for the autonomy of the learner. Moral education does not consist in imposing one’s point of view on others. Its aim must be to develop in students and young people, the ability to think for themselves about moral issues, and to make autonomous moral judgements (Iheoma, 1986).

Nevertheless, one has to be careful not to construct this sense of autonomy too narrowly, detaching it from a sense of community (Halstead, 1986). Community structure and social interdependence too are important ingredients that contribute to the flourishing of the individual. Within such a framework, young people need to have some kind of embeddedness or roots within their culture of origin (McLaughlin, 1996). Dawkins (2006) in his criticism to religion and the exposure of children and young people to different faiths, argue that children should be left free to arrive to their own conclusions about the incompatibility and consequently the validity of faith or faiths when they are old enough to do so. But who is to cast the vessel that needs to be filled? Is it the parents, the school, society? Etzioni makes the claim that “if the moral representatives of society do not fill the inborn vacuum, television and the streets will” (1993, p. 55). If all that children receive is custodial care and morally careless education, “their bodies will mature, but their souls will not” (ibid., p.55). Loading our students with hours of science, languages, maths and other bodies of knowledge is important, but is the education they receive thorough? What parent would be comfortable with their child having no moral code, no understanding of their place in the universe, no connection with the God that sustains them? Hume (1997) argues:

If democracy itself is not to degenerate into new forms of tyranny, it needs values and vision. It needs also to rediscover its own history, to reach back to its own roots, to understand the civilising influence that once gave society its shape and coherence, and then to undertake the slow and creative process of integrating past and present, the individual and the community, the material and the spiritual (p. 21).

Such a claim supports the argument that children need to be provided with an initial and stable conception of the good as the starting point for autonomous reflection. Within democratic societies, it is the parents’ right to shape the early education of their children according to their beliefs, values and moral ideologies. It also is their right to send their children to faith-schools of their moral and religious commitments (Gravissimum Educationis, 1965, par. 6,7, 8). The same argument is made by Jong and Snik (2002) who maintain that during the stage of ‘formative education’ (ibid., p.583), it is the parents’ right to choose which primary culture the child should be initiated into. At an early age, children require more direction and guidance. The role of parenting is to teach and to empower children to develop an internal point of reference for decision-making and guidance so that in time, as they move more towards maturity, they will be able to determine for themselves what is appropriate spiritually and morally. McLaughlin (1996) argues that it is the right of young people to exercise their own reasoned position with regards to faith, morality, values and beliefs.

Within this framework the moral educator is to guide pupils in discussions aimed at discovering acceptable moral beliefs, so that the students become more reflective and conscious of both the values they hold and the reasons for holding them. An enlightened teacher can, “profitably exploit appropriate beliefs, models and illustrations drawn from religion to support accepted moral precepts and to provide guidance in controversial matters” (Iheoma, 1986, p.148). Often different interpretations arise that can lead to conflict. In such circumstances, dialogue and tolerance must prevail. Haydon (1993) states that the scope of understanding is limited, if there cannot be dialogue where different points of view can be compared. It will all the more be necessary, if persons are to be able to go beyond simple recognising and understanding differences, to trying to arrive at a concrete position which they can all subscribe to. Subsequently guiding pupils in discussions aimed at discovering acceptable moral beliefs, does not warrant teachers, the charge of prejudice or indoctrination (Iheoma, 1986). Andrew Wright (2000) offers this way forward:

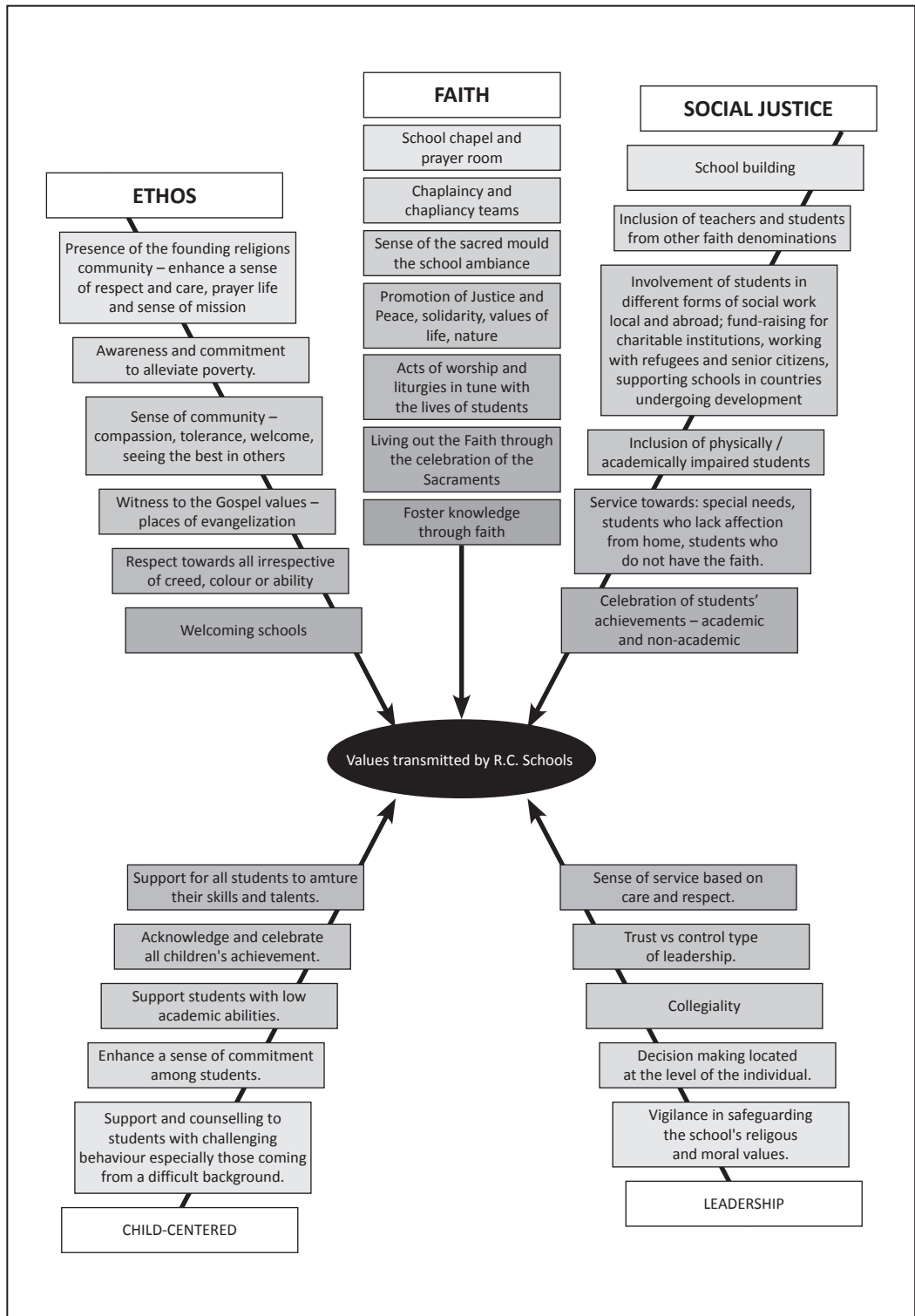
An effective spiritual education will combine a hermeneutic of nurture with a hermeneutic of criticism. A good school will unashamedly induct children into the spiritual values and world-view which it considers to be of greatest worth, as well as insisting that children explore alternative possibilities.

This study maintains that within the four Catholic schools, students were exposed to values that are rooted in the teachings of Jesus Christ and, consequently, those of the Catholic Church. In spite of the cultural differences between Malta and England, similar patterns in the way students were familiarised with the living out of the Catholic faith transpired in the four schools. Each school, within its capacity, tried to live out the Catholic faith through the sense of community, worship, a sense of inclusion and service towards all, especially the poor. This study showed that each of the four schools had its strengths and weaknesses, consequently giving way for certain aspects of the Catholic faith to feature within certain schools more than in others. This, however, did not diminish the effort each school community made to enable the students and the whole school community to encounter the Christian faith in action. In the light of the aforesaid, a typology of values transmitted within Roman Catholic schools was devised. Each area of Catholic schooling, ethos, faith, social justice, child-centeredness and leadership, illustrates how values come across through the different engagements held by Catholic schools and the daily life of the members. The diagram shows five arrows pointing to the centre that represents the core of Catholic schooling. A number of boxes are deployed along the arrows each depicting the values that fall under every area that transpired in the research. The values that feature in the typology are common in one way or another, to all Catholic schools. The stronger the agreement on certain values that emerged within the four Catholic schools, the nearer they are to the hub of Catholic schooling (See Fig. 1).

Conclusion

Though each of the four schools had its particular way of living out the Catholic faith, both within the school community and the community at large, they all strove to be an authentic ‘agency of evangelisation’ (Lumen Gentium, 1964, Chp. 2) within the Catholic Church. All the four schools were committed towards imparting a type of education that enhanced not only knowledge and the cultivation of the mind, but also moral and ethical values that nurtured the spirit. This study retains that values of community, inclusion and service, especially towards the poor and disadvantaged, maintained and strengthened by a faith community, was what gave these four schools their particular characteristics. The findings within this research study confirm that within the four Catholic schools, these values were upheld and endorsed by the members, irrespective of whether the surrounding culture was Catholic or secular. However, the aim of the four schools was not exclusively to represent and keep alive the teachings of the Catholic faith within their

Figure 1: The typology of value transmission in Roman Catholic schools (Scerri, A. 2009, p. 279)



school communities, but to challenge their students to reflect, discern and eventually engage in mature and fruitful dialogue within a multi-faith society.

It is the conclusion of this study that Catholic schools provide a platform for the Catholic Church to reach young people and adults so as to enable them to live the Christian faith in concrete ways and be witness of it through their actions. These four Catholic schools were characterised by a vocation of service and ministry towards their school communities and eventually the community at large. Since in Sullivan's words, the Christian community "is not a holy huddle of the timid or the withdrawn in hiding" (2000, p. 98), it is the Church's mission, and therefore that of the Catholic school, that all types of ecclesial nurturing are carried out with a view to ministry. It is this sense of ministry rather than mastery that bestows on the world of Catholic education a voice which beckons to vocation.

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Section III

LEADERSHIP, TEACHER AGENCY AND PROFESSIONAL LEARNING

Current Trends and Promising Practices in Teacher Learning: A Synthesis of Findings from Recent International Surveys

Milosh Raykov

Abstract

The changing world of work and knowledge-based economy demands an increased level of knowledge and skills. Teacher work is also affected by the changing nature of work and this study that is based on a secondary data analysis of several international surveys examines some of the issues in the domain of teachers' work-related learning. Analysis of the Teaching and Learning International Survey (TALIS) further shows that the overwhelming majority of teachers are frequently involved in informal dialogue with their colleagues and most of them believe that it is important for their continuing professional development. The Canadian Work and Lifelong Learning Survey also demonstrate that, in addition to learning at work, a large number of teachers participate in informal learning. The analysis of the data from the Programme for the International Assessment of Adult Competencies indicates that a large number, more than two-thirds of teachers, participate in various forms of learning but, a large number, more than a third of them experience unmet needs for education. In sum, the review of the literature and the available data demonstrate a lack of relevant applied studies and a need for organization of the viable and innovative forms of learning that can meet teachers' needs and professional interests.

Keywords: learning, international surveys, teacher competences

Introduction

The globalized world of work and knowledge-based economy demands an increased level of knowledge and skills (Commission on Behavioral and Social Sciences and Education, 1999). The increased complexity of work requires a higher level of skills and knowledge from all employees, and educational planners are responding to this challenge through the promotion and organization of various forms of lifelong learning programmes, as well as through mandatory participation in continuing professional development (CPD) activities in many occupations.

In the global context marked by increasingly complex and multidimensional requirements at work (OECD, 2013; Statistics Canada, 2013), many studies highlight the importance of core academic skills, as well as 'soft skills' and continuous participation in lifelong learning and CPD. Policy studies emphasise that regular monitoring of participation in learning and CPD are important for increasing participation in the various forms of adult learning (Eurostat, 2015; OECD, 2014b; UNDP, 2014). A significant number of studies also demonstrate a growing demand for, and motivation to obtain, higher levels of education. In many countries, however this kind of data is not available (Bowly & McMullen, 2002; Krahn & Taylor, 2005; Livingstone & Raykov, 2013).

There is general agreement that lifelong learning plays a highly significant role in modern society as a response to globalization and technological changes. Policy makers and human resource theorists emphasise its importance in increasing national competitiveness, organizational productivity, individual income and quality of life (CCL, 2010). Research concerning participation in lifelong learning demonstrates that large numbers of employees are engaged in formal education (OECD, 2015), while a significantly larger number engage in informal work-related learning (Livingstone & Raykov, 2013; Rubenson, 2006; Rubenson, Desjardin & Yoon, 2007).

Teacher work is also affected by the changing nature of work and learning and increasing demands for knowledge and skills (Darling-Hammond & Bransford, 2005). In addition to teacher participation in the various forms of CPD, teachers increasingly participate in some of the teacher networks formed specifically for the professional development of teachers. According to Abbott (2014), a professional learning community (PLC) is “a group of educators that meets regularly, shares expertise, and works collaboratively to improve teaching skills and the academic performance of students”. Recent large-scale studies demonstrate an increasing rate of teacher participation in some forms of PLC as well as extensive participation in various forms of lifelong learning.

Research problem

Several international studies (e.g. European Commission, 2015; OECD, 2016) demonstrate constantly increasing levels of involvement of adults in various forms of lifelong learning. However, there is also an apparent lack of data on the key aspects of adult learning demonstrated in many of the comparative studies of adult education (e.g. European Commission, 2014). In addition, most of these studies are focused on the previous participation and engagement in lifelong learning during a relatively short period of time, usually four weeks to one year, preceding a particular study. This retroactive orientation at the level of participation in lifelong learning does not provide sufficient and adequate evidence for educational policy and practice that aim to widen access to educational opportunities and raise citizen participation in lifelong learning. The same case is evident in the domain of teacher learning and CPD.

Objectives

Based on a comparative analysis of adult education and lifelong learning in countries with highly developed systems of adult education, this study examines teacher participation in different forms of lifelong learning as well as their participation in some specific forms of CPD based on the existing data related to adult education (Statistics Canada, 2013; OECD, 2013; Livingstone & Raykov, 2012) and teacher education (OECD, 2009). Taking into account the identified knowledge gaps and inconsistencies related to the evaluation of participation in lifelong learning, and the issues identified through the studies of international data regarding unmet demand for education (Livingstone & Raykov, 2013), this study addresses the following questions:

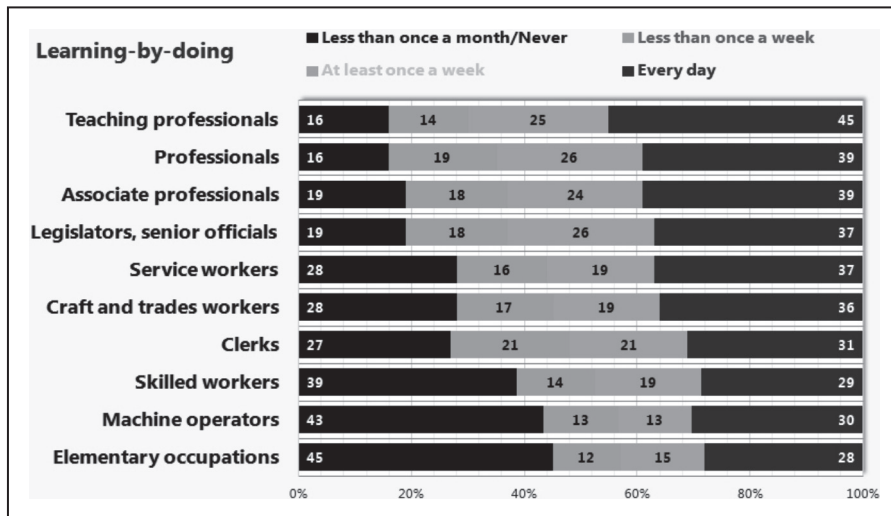
1. To what extent do teachers participate in various forms of CPD?
2. What content and forms of lifelong learning do teachers prefer and what do they perceive as useful for their CPD?
3. To what extent are teachers interested and ready to involve themselves in different forms of lifelong learning and continual CPD?
4. How large-scale international surveys can support policies related to teacher professional development.

Results and discussion

The analysis of the data from the Programme for the International Assessment of Adult

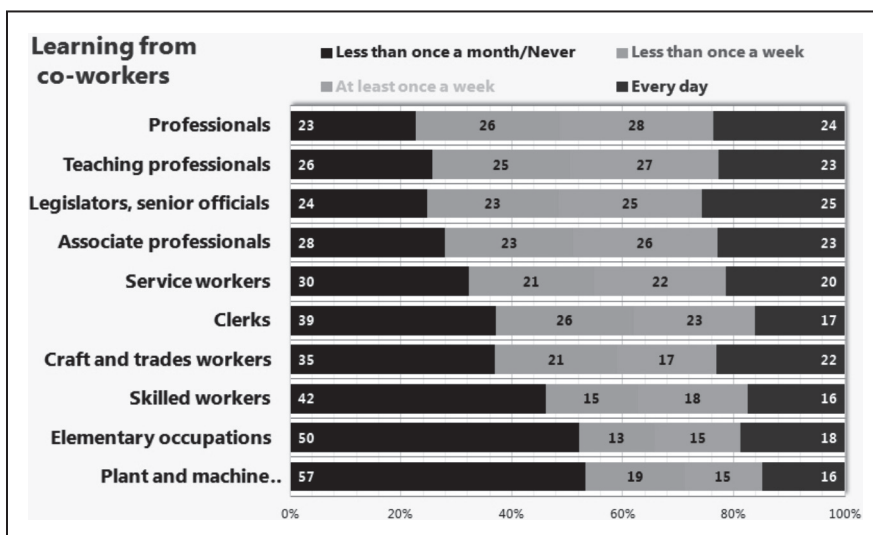
Competencies (PIAAC) that is based on responses from more than 150,000 participants from 24 countries indicates that more than half of teaching professionals (56%) regularly participate in some forms of job-related training (Statistics Canada, 2013; OECD, 2013). The same study demonstrates that most of the teachers (80%) learn for job-related reasons, slightly more than the members of other occupational groups (67%). The same study also shows (Figure 1) that a large number, seven out of ten (70%), of teachers learn-by-doing through daily teaching practice.

Figure 1: Teachers and Individual Learning (Learning-by-doing)



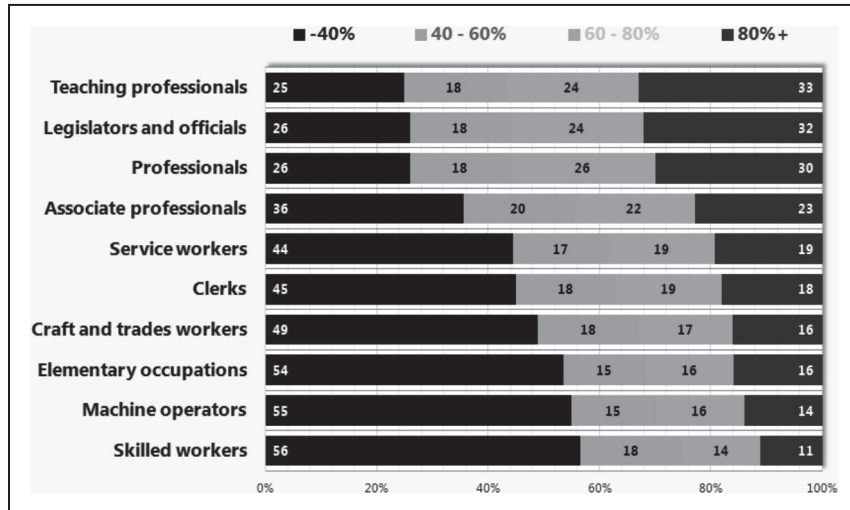
The analysis also demonstrates (Figure 2) that approximately half of the teachers (49%) learn from their co-workers or supervisors every day or several times during a week.

Figure 2: Teachers' Participation in Collaborative Learning (Learning from co-workers or supervisors)



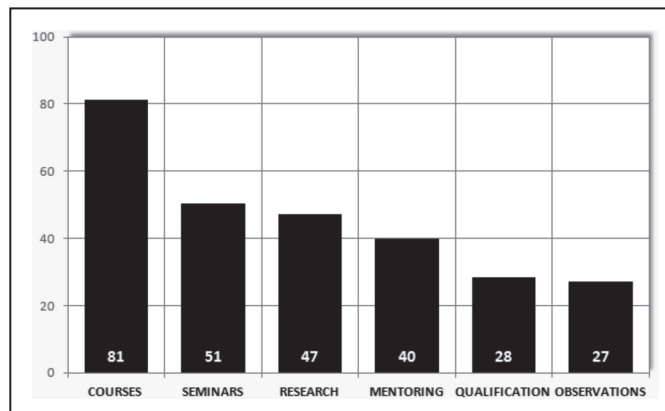
In addition to such frequent participation in various forms of learning, a large number (39%) of teachers and other employees (25%) experience unmet needs for education. As Figure 3 shows, a large number of teachers who participated in the PIAAC study (57%) also demonstrate a high level of readiness for learning.

Figure 3: Teachers' Readiness to Learn



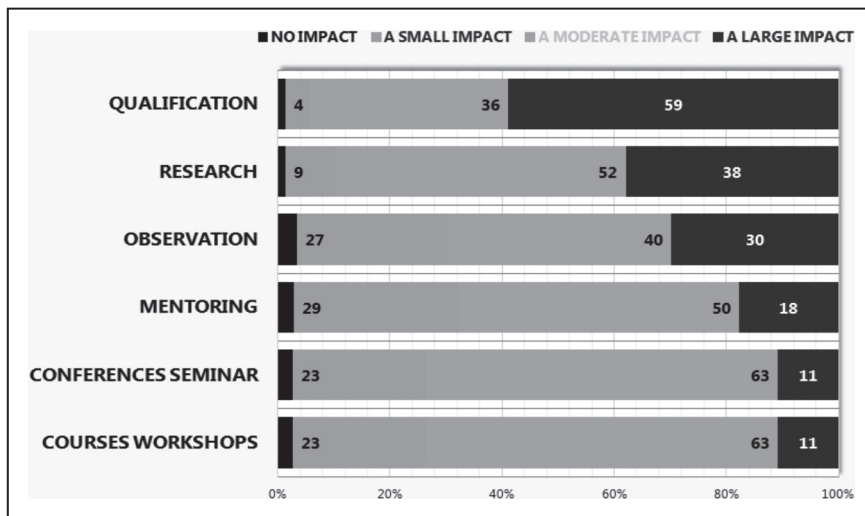
The OECD Teaching and Learning International Survey (TALIS) which included 72,190 participants from 24 countries, was analysed to determine the most frequent forms of learning and teachers' opinions about the efficiency of the specific forms of continuing professional development (CPD). This study shows (Figure 4) that a large number of teachers participate in some individual and collaborative forms of CPD, formally organized courses or workshops as part of their CPD, and the overall level of participation is very high (81%). Similarly, teachers in the OECD countries frequently participate in education conferences or seminars (51%), individual or collaborative research (47%), mentoring and/or peer observation and coaching, as part of a formal school arrangement (40%), qualification programme (28%) and observation visits to other schools (27%).

Figure 4: Teacher Participation in Various Forms of CPD



Despite the fact that teachers in the OECD countries are less frequently enrolled in degree programs and the various forms of collaborative research, they value these forms of CPD (Figure 5) highly. The majority of teachers, (95%), value qualification programs and participation in collaborative research highly (90%) and believe that they have a strong impact on their professional development. In addition, a vast majority of teachers (92%) are frequently involved in informal dialogue with their colleagues in order to improve their teaching, and most of them (84%) believe that it is important for their CPD.

Figure 5: Perceived Impact of CPD



A smaller but not inconsiderable number of teachers perceive observation visits to other schools (70%) and mentoring and/or peer observation (68%) as a form of CPD with a strong impact on their professional development. The most frequent forms of CPD (courses, workshops, seminars and conferences), a relatively small number of teachers perceive as forms of CPD with a large impact. Participation in conferences or seminars (11%) and workshops (11%) are rarely perceived as highly valuable forms of CPD and almost two-thirds (63%) of teachers believe that these forms of CPD just moderately influences their professional development.

Other international studies such as Work and Lifelong Learning Survey (Livingstone & Raykov, 2012) demonstrate that, in addition to learning at work, a large number of teachers participate in informal learning related to their employment. For example, the Canadian Work and Lifelong Learning survey demonstrate that almost two-thirds of teachers (63%) and approximately half of other employees (53%) participate in some form of informal learning. The study also shows that approximately one-third (34%) of teachers often seek advice from someone knowledgeable in order to develop their job-related skills. A component of this survey focused on teacher learning demonstrates that the majority of teachers were involved in formally organized courses during the previous year; 90% of them. Most of this learning (82%) was related to their work. With regard to the preferred forms of learning, this study demonstrates that more than a quarter (29%) of teachers consult some experts, 20% cooperate with a specially organized group of learners, while more than half (52%) consult their work colleagues.

The main objective of an additional qualitative study (Mayo, Borg & Raykov, 2016) was to provide

relevant and reliable information necessary for evidence-based decision making related to supporting teacher wider participation in different forms of lifelong learning and CPD. In addition to the analysis of the large-scale surveys, this study also includes a small pilot study of adult learners from Malta interviewed by phone in order to collect some preliminary data related to their participation in a wide variety of different forms of lifelong learning. The semi-structured interview was based on the Work and Lifelong Learning WALL (Livingstone & Raykov, 2012) and PIAAC (OECD, 2013) surveys. The survey was converted into an online form that was used as a base for computer-assisted telephone interviews. The participants were randomly selected from publicly available phonebooks and the study was approved by the institutional ethics review board. This component of the study included 28 participants who agreed to be interviewed or to take the online survey. Thematic qualitative analysis (Braun & Clarke, 2006; Tashakkori & Teddlie, 2009) with the application of software for computer-assisted qualitative data analysis was used to explore the data collected through the interviews.

Most of the participants were employed but only a few were involved or intended to continue their formal education as students in an educational institution. A significant number of participants in this pilot study reported that they are taking different forms of accredited courses on a part-time basis. Regarding informal and non-formal education, the majority of participants mentioned that they participate extensively in different forms of learning and acquire a wide array of work-related knowledge and skills through their paid work, work at home as well as through their participation in voluntary activities.

Participants with higher education attainment mentioned that they would feel “out-dated” if they do not take additional courses and many others mentioned that their profession requires continuing professional development (CPD). Employers often organise courses for their employees and this support is perceived as very convenient for CPD participants because of the many barriers to participation in the various learning activities and CPD. It was also obvious that the participants who use computers and the online forms of learning have more opportunities for their professional development and learning.

In addition, more than half of the interviewed participants reported their involvement in different forms of employment-related informal learning. Most of them reported learning about new job-related tasks, computers and new equipment. Also a significant number, almost half of the participants, reported that they learn about employment conditions, health and safety. Regarding the sources for informal learning, most participants indicated the Internet and family members as used sources for such. A relatively small number of participants reported learning from books. It is interesting to note that several participants mention that they learn from audiovisual sources from the Internet as it is flexible and allows them to learn at a time that is convenient for them. A much smaller number of participants reported that their main source of informal learning is television and radio programs.

The interviews also identified a significant number of participants who wanted to participate in formal or non-formal training but, due to various reasons, were not able to do this. The main theme that emerged from the interviews was that most of the participants were interested in participating in both, formal and non-formal lifelong learning related to their work and CPD, but several participants indicated that they face various barriers to engaging in adult education. Similar to the results from the previous studies (Livingstone, Raykov & Stowe, 2001), the most frequent barriers to participation were work-related duties, family obligations and the cost of training. Some of those who were not able to participate also mentioned a heavy workload.

Since one of the major barriers to participation in adult education for the majority of participants is their work schedule, it is evident that employers' support and the flexible schedule of adult education courses are likely to facilitate wider participation in adult education. Considering the findings from our previous studies (Livingstone, Raykov & Turner, 2005; Raykov & Livingstone, 2014; Livingstone & Raykov, 2006), it would be expected that measures aimed at improving and supporting lifelong learning could have broad effects on general levels of participation. The preferred forms of informal learning and the influence that membership in professional and trade organizations has on the level of participation in work-related informal learning indicate some of the ways in which work-related learning can be more widely implemented.

Regarding the question concerning the frequency of learning from co-workers or supervisors, more than half of the participants mentioned that they learn from co-workers every day or at least once a week. A significantly smaller number of participants, approximately one third, stated that they rarely or never learn from their co-workers or supervisors. On the other hand, for a number of participants "learning from their supervisors and co-workers" was perceived as a "normal" part of daily routine. The pattern of responses from the interviews is, despite the small sample, similar to the results obtained through large-scale surveys such as PIAAC (OECD, 2013). A very similar pattern of participation was identified with regard to learning-by-doing. The frequency of the intensive, daily learning-by-doing contrasts with the results obtained through official surveys and indicates that there is a need for the collection of a larger set of indicators that can provide a comprehensive overview of participation in different forms of adult education.

Concluding remarks

In sum, results from the analysis of the recent international studies demonstrate substantial variations regarding participation in various forms of lifelong learning and CPD among different countries as well as variations in the level of participation of different social groups. The variability of participation requires constant monitoring as well as in-depth studies focused on challenges specific to each society. At the current stage, there is an apparent lack of evidence regarding the profile of participants and non-participants in different forms of adult education and CPD. Future research studies will need to focus on the exploration of this issue. Results from this study demonstrate that collaboration, networks and partnerships play a significant role in the CPD of teachers. The review of the literature and the available data sources shows a lack of relevant applied studies and demonstrate a need for organization of the viable forms of CPD that can meet professional interests and needs of teachers.

Overall, the study demonstrates that teachers' participation in lifelong learning and some specific forms of CPD play a highly significant role in modern society as a response to globalization and technological changes since teacher work is also affected by the changing nature of work and learning. Teachers participate in many of the various forms of continuous professional development (CPD), and they increasingly participate in different forms of communities of learning and professional development that significantly contribute to teacher professional development and efficient work.

As our study demonstrates, the most frequent forms of CPD (courses, workshops, seminars and conferences) are not highly valued by teachers. They highly value qualification programmes, research and observation that are rarely available through their regular CPD programmes. Policymakers and senior management teams have the opportunity to use valuable results obtained through large-scale international surveys (e.g. OECD, 2009, 2014) as well as from many experimental studies (e.g. Dowling, 2016) and systematic reviews (e.g. Coburn & Penuel,

2016) to create feasible policies and efficient collaborative forms of CPD practice in educational institutions.

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Section IV
**IMPACTING ON PRACTICE... EXPLORING CURRICULA AND
PEDAGOGICAL ISSUES IN EDUCATIONAL CONTEXTS**

Introduction to Section 4

This section presents a series of studies that involve various and varied initiatives undertaken over the years to explore curricular and pedagogical issues and their impact on practice which is ultimately one of the main objectives of our educational endeavours as a Faculty.

In the first paper on language in primary Mathematics education Marie Therese Farrugia notes that whilst in Malta, the language of written Mathematics is English, and hence the academic register of Mathematics is English, many Maltese learners and teachers tend to use both Maltese and English for verbal interaction and, thus, translanguaging may be a common feature in many classrooms. Furthermore, given that our classrooms are becoming increasingly mixed in terms of nationalities or language groups, she argues against a view of language-separation that has prevailed for many decades. Farrugia upholds an acceptance of the various languages available to learners and recommends that explicit attention be given to ‘mathematical’ language through suitable pedagogic strategies.

Recent policy documents talk about the language of instruction and assessment in terms of ‘issues’. Farrugia argues that the practice of mixing languages is not an issue *per se*. Rather, she identifies two implementation issues that need to be addressed. One issue is the need to develop suitable pedagogical strategies to focus on academic language needed by the students for lesson participation and success in assessment contexts. The other issue relates to the acknowledgement, and even use of, other languages represented in our classrooms today.

The next contribution by Antoinette Camilleri Grima presents us with a paper that was published in the Polish journal *Lingwistyka Stosowana* in 2016. This paper takes a look at the bilingualism of Maltese children aged four to seven, and describes the ways in which the children interact bilingually in the home, at kindergarden and in public play areas across the two Maltese islands. All the studies reported here were conducted independently of each other in the last few years but have produced remarkably similar results. In each instance a balanced use of each language was observed, such that it can be safely concluded that young Maltese children are already functioning bilingually by age 4-5. It will be interesting to view this within an educational context – both in schools and beyond - that is becoming more ethnically diverse.

Ann-Marie Bezzina and Neal Sammut take a specific look at grammatical difficulties faced by Maltese learners in foreign language writing. This study, which explored essays written by 14 to 16 year-old learners, shows that an emphasis on teaching grammar is not leading to the desired results when learners need to apply extensive grammatical content in longer, written communicative tasks. The apparently dominant mode of work in the foreign language teaching programme, based on grammar exercises, needs to be complemented by tasks and activities in which learners practise their grammatical knowledge in longer stretches of writing.

In the current system where the French as a Foreign Language (FFL) syllabus in Malta is significantly loaded with grammatical content on which teachers hardly have any control or say, teachers claim that they feel stressed and as a result that they cannot really transmit a positive attitude towards FFL learning. The examples presented in the previous section, of nurturing a culture of collaborative endeavour amongst teachers, will radically help to address such matters. It is through such diverse studies that one learns to appreciate how research is so important and should help to enlighten policy issues and their strategic implementation.

Sandro Caruana, Stefania Scaglione, and Phyllisienne Vassallo Gauci present us with a very topical issue – that of multilingualism and migrant learners in Maltese schools. The authors argue that the presence of migrant learners requires language policies as well as inclusive didactic measures that could lead to their inclusion while valuing their personal experiences. They observe that the growing number of migrant learners has led to considerable efforts from the local educational authorities in order to develop policies related to their inclusion and to the appreciation of their languages. However, more practical measures are required in our schools, both to raise awareness of the benefits that may result through the inclusion of migrant learners and to help educators address their needs professionally.

The end note to their paper is of particular importance, once again highlighting how important it is to create better governance structures at school level whilst establishing stronger support structures. Caruana, Scaglione and Vassallo Gauci argue that pragmatic solutions need to be found at 'local' level, and that much hard work is required for the promotion and analysis of good practices in order to help create a social environment favourable to the promotion of the linguistic and cultural diversity resulting from immigration in schools. They also highlight various problems which have to be solved with urgency, above all the professional preparation of linguistic mediators and support teachers who could facilitate the inclusion of migrant learners, also by following some of the more successful models used in other European countries.

Acknowledging the changing realities facing Maltese schools and the need to embrace multiculturalism and diversity, Yosanne Vella presents various strategies for teachers as they face such challenges. Vella argues that whilst the promotion of multiculturalism in education is rich in rhetoric it is poor when it comes to concrete ideas of what a teacher can do in his or her subject in the secondary school. One cannot negate the challenges that exist and it is here that schools can make huge contributions.

Whilst acknowledging that various studies have been undertaken to address issues of equity and justice they often stop short when it comes to answering teachers' questions. It is precisely this 'what and how' that this paper addresses through a small-scale study conducted with 11-12 year-olds on how History as a school subject can promote diversity in the secondary school.

Karl Attard's contribution is on the importance behind Physical Education (PE) with a determined focus on Olympism. The paper focuses on how PE can contribute to a child's holistic development with special emphasis on social and moral development. Attard argues that this can be achieved if teachers and coaches start off by engaging in critical analysis of their own experiences and the world of sport. Only later, can they do the same with children under their responsibility. He believes that having critically reflective and physically literate students is the best way of promoting the ideals of Olympism. Students should also be handed the tools to decide for themselves what is ethical or not.

Another paper focusing on holistic wellbeing is that by Suzanne Piscopo, Karen Mugliett and Lorraine Piscopo. This paper presents a review of research and practice of Home Economics (HE) in Maltese society. The review of Maltese studies serves to bring out the complexity of food, health and consumption behaviours and the various influencing factors at different levels of the environment, the value of interventions based on theory and which of these are targeted to meet identified learners' needs. Observations were also made on how HE curricula and teacher training have developed in relation to contextual changes in society. The review also highlights the importance behind research as it can offer evidence in a variety of domains in order to inform

curricular decisions in the area and to influence and advocate for effective policies and structures in education, health, family and consumer affairs, among others.

George Cremona places the reader in another realm, that of multimodal pedagogy and so through a comparative study involving Malta and Bataan, a province in the central Luzon region of the Philippines. Through the comparative analysis of both sets of data, two main conclusions are presented. Firstly, that multimodal theories can effectively be applicable in both learning contexts. Secondly, whereas in both contexts, teachers were working in different cultural realities, frequently at bottom line teachers still identify similar and common challenges, namely time constraints, exam oriented challenges, packed syllabi, and benefits such as student-centred positive remarks, when reflecting on the application of multimodal theories and resources in their daily classroom practices.

Charles Bonello's contribution focuses on cognitive conflict to support students' understanding of abstract Science concepts. When using cognitive conflict one presents learners with a concept which is intriguing and which helps them reflect. It provides an opportunity for learners to apply their understanding of scientific principles to tasks that can potentially challenge this understanding so that they have to 'think again'. In a context where there still seems to be a focus on coverage, this presents educators with a challenge to review the way we view learning and hence the pedagogies used to teach and engage with our students.

In the paper *A Pedagogy of Dialogue: Curating and Artistic Education* Raphael Vella presents a different slant to the varied areas that our Faculty engages in. He argues that as curatorial discourse and curators play an increasingly significant role in contemporary artistic practices, art history and the public's understanding of the visual arts, art educators need to take account of and address curatorial strategies in their pedagogies. An educational experience of curating does not only develop students appreciation but also exposes them to others' frames of reference by teaching them to be receptive, rather than indulge in self-engrossed experiences. Vella goes on to argue that "this sense of 'caring', understood as the apprehension of the realities of others as possibilities for ourselves, is an important objective that must be balanced by an equally important attentiveness to a disturbance of our values and ideas by others' interpretations".

The paper by Stephen Camilleri, Deborah Chetcuti and Ruth Falzon narrates the views of six students with a profile of dyslexia regarding examinations. Following current trends in educational research, the study gives voice to the students themselves. In-depth interviews are carried out to find out what the students think about examinations, the challenges they face and how they envisage that examinations could be made 'fairer.' Results reported in this paper suggest that dyslexic students experience real challenges when sitting for examinations due to the actual difficulties due to their dyslexic profile; the time constraints of examinations and the stress and anxiety caused by their perceived inability to achieve at par with their peers.

In the final paper to this section Josette Farrugia explores the first steps taken by a group of Maltese teachers participating in the EU funded FP7 project aimed at promoting inquiry-based learning (IBL) in Mathematics and Science classrooms across Europe, PRIMAS, by providing long-term professional development (PD) to teachers during the introduction and implementation of IBL in an examination-oriented culture. Twenty-five teachers from five state schools who participated, on a voluntary basis, were provided with PD for two years by the author and colleagues from the Faculty. Small groups of five teachers met every two weeks with a PD facilitator. The meetings took place during school hours within the school. The teachers were given a reduced teaching

load to enable them to attend the PD sessions, prepare new lessons and resources, and reflect on their practice. During the meetings the teachers reflected on issues and practices related to IBL and to how inquiry may be encouraged and promoted. They worked on exercises and activities intended to help them reflect on their practice and on their students. During the meetings tasks that teachers were required to try out in class were set with a deadline. There was also time for sharing experiences, especially those related to their attempts at trying out IBL.

Findings from this study reported in this paper, once again reinforce the value behind teachers coming together within a supportive structure that allows teachers to take an active role in the learning process.

Section IV

IMPACTING ON PRACTICE... EXPLORING CURRICULA AND PEDAGOGICAL ISSUES IN EDUCATIONAL CONTEXTS

From Policy to Practice: Giving Attention to Language in Primary Mathematics Education

Marie Therese Farrugia

Abstract

The National Curriculum Framework of Malta (2012) states that attention needs to be given to the issues of the use of language/s in different learning areas. This recommendation resonates with international literature within mathematics education which holds that an essential aspect of learning mathematics is becoming aware of, and using, the language related to the subject. In Malta, the language of written mathematics is English, and hence the academic register of mathematics is in English. However, many Maltese learners and teachers tend to use both Maltese and English for verbal interaction and, thus, translanguaging may be a common feature in many classrooms. Furthermore, classrooms are becoming increasingly mixed in terms of nationalities or language groups. In this paper, I argue against a view of language-separation that has prevailed for many decades. Rather, I uphold an acceptance of the various languages available to learners and I recommend that explicit attention be given to 'mathematical' language through suitable pedagogic strategies. I give examples of how this might be done, by drawing on data taken from two Maltese primary classrooms wherein I carried out teaching/research experiences. One class consisted of Maltese pupils, while in the other class, many different home languages were represented. The classroom data, together with data collected from one-to-one conversations with a number of pupils, indicated that the explicit focus on mathematical language prompted pupils' increased use of language generally, and also enhanced articulation of mathematical ideas through English. I conclude the paper by suggesting further research that might be carried out on language and mathematics. The National Curriculum Framework, which strongly promotes inclusive education, also encourages reflection on medium of instruction issues. I believe that a variety of research directions may help us to move from policy to practice.

Keywords: Mathematics education; mathematical language; education policy; bi/multilingualism

Introduction

The National Curriculum Framework of Malta (NCF) (Ministry of Education and Employment, 2012) includes a section entitled "issues related to the language of instruction" (p.41). This section is prompted by the fact that education in Malta is carried out through two languages, Maltese and English. Maltese is often the first language of the majority of teachers and students, and has an important role to play in terms of communication and for the benefit of building and maintaining relationships. English, often teachers' and students' second language, has been used within local education for close to 200 years due to Malta's colonial past, and it continues to be the academic language for a number of school subjects.

Anecdotal evidence and research studies show that many teachers today codeswitch between Maltese and English (see Caruana Lia, 2016; various studies cited in Camilleri Grima, 2013; Farrugia, 2017). This is especially the case for subjects for which written texts are in English as in the case of, for example, mathematics and science. As explained in Camilleri's (1995) seminal work on code-switching in educational settings in Malta, the extent to which either language is used during a lesson depends on various factors, including the teacher's background, language preference, school policy, if any, and the language background of the students. Camilleri (1995) remarked that even if only one learner in a class is non-Maltese, the teacher is likely to use English much more. This point is certainly applicable today, with the ever-increasing number of non-Maltese students attending local schools. Statistics published in 2014 give the figure as 6% (Ministry for Education and Employment, 2014), although anecdotal evidence indicates that the figure has increased since then.

Local schools do not offer the support of adults who speak the various languages that might be spoken by the non-Maltese learners, and hence it is a common practice for teachers to use English as a *lingua franca*. Of course, English may not be the students' home language, but the apparent assumption is that it would be easier for both the non-Maltese and the Maltese children to follow and participate in a lesson given through *English*, than it would be for non-Maltese students to follow and participate if the lesson were to be given in Maltese. While it may be the case that a number of Maltese students will 'follow' lessons easily in English, and even participate verbally to various extents, it remains a fact that children whose home language is Maltese are learning through a second language. This is in contrast to the UNESCO (2007) support for mother tongue instruction as a means of improving educational quality. According to this advocacy document, education begins with what the learners already know, building on the language, culture, knowledge and experience that they bring with them when they start school.

Our reality is that English continues to be the academic language for several school subjects, including mathematics. Given this situation, I argue in favour of allowing flexibility of language (Maltese/English) but with explicit attention to English mathematical language. Hence, the language/s of instruction for mathematics is the focus of this position paper. I start with a historical outline of language in education in Malta, leading up to the most recent policy statements relating to issues regarding language of instruction. I then describe how one might focus explicitly on mathematical language, offering illustrations from empirical research. Thus, I focus on the NCF concern for the need "to address ... the use of language/s in different learning areas" (Ministry of Education and Employment, 2012, p.41). I end the article with some reflections on language use for mathematics in Malta and with recommendations for future research studies.

A historical overview of medium of instruction policies

The choices of official languages and media of instruction are shaped by political, social and economic forces (Tollefson & Tsui, 2004). Common factors often include the imposition of a language by a dominant group, and/or a perception of the dominant language as being a gateway to economic or social success. Malta is no exception. During the period of British colonization from 1800 to 1964, English gained ground as the language of education and social status. Prior to British colonization, *Italian* was the language of power, having been introduced into the country by the previous rulers, the Knights of St. John. The political 'tug-of-war' between forces supporting Italian or English resulted in periodic shifts in policies regarding which of the two languages should be used as the medium of instruction in schools. Over time, English took the upper hand, as it became increasingly relevant to the Maltese people due to the extensive naval activity on the island, and the civil service.

The use of *Maltese* in school in the early 19th century was quite minimal. Brincat (2017) explains that this should not be surprising, given that during this period, minority languages, dialects and small nation languages enjoyed no prestige or importance. Despite this, Maltese began to make its way into local education. For example, Brincat (2017) provides an illustration of an 1839 school book in Maltese written in a mix of Roman and Arabic script, and reports that the English governor of the same period admitted the role that Maltese could play as the medium of instruction. The 1879 inquiry into the state of local education commissioned by the British government (Keenan, 1880), recommended that Maltese be used as a medium of instruction. The increased use of Maltese in education over the 19th century occurred against the backdrop of the language slowly gaining literary ground and increased practical relevance for methods of communication (Brincat, 2017).

Shifts in policies with regard to the medium of instruction continued into the 20th century, with the options being English or Maltese. Camilleri (1995) states that we do not have information about the official medium of instruction around the time that primary schooling was made compulsory in 1924. However, Maltese was the recommended medium in 1934, when the language was raised to the status of national and official language. It is interesting to note contrasting views of the situation. The Director of Education serving in the 1930s, reported that “all subjects are now taught through the medium of English” (Annual Education Report, 1936-37, p.502, cited in Abela, 2017), and indeed, a consultative committee set up in 1948 to assess the problems being experienced by the educational system suggested that *English* be used as a medium of instruction (Zammit Mangion, 2000). On the other hand, an educator who had served as a Head of school between the late 1920s and late 1960s, reported to Camilleri (1995) that, in his school, Maltese had always been used as a medium of instruction. Hence, one should keep in mind possible discrepancies between official statements and grass roots experiences. It is likely that at classroom level, mixing of Maltese and English was an inevitable consequence of the language contact. Evidence of this is a mathematics textbook published early in the 20th century that utilized switching (Vella, 1913). An excerpt is reproduced below, followed by my own translation of the text:

“Mit-tfissir tal NUMERATION aħna tghallimna li qualunqua numru, cbir chemm icun, jista jifi ir-rappresentat per mezz tal NINE DIGITS AND SUCCESSIVE POWERS OF TEN”. (p.11, *spelling and punctuation as in original*).

[From the explanation of NUMERATION, we learnt that any number, however big, can be represented by NINE DIGITS AND SUCCESSIVE POWERS OF TEN”].

Moving on to more recent policy documents, the 1999 National Minimum Curriculum (Ministry of Education, 1999), suggested that mathematics, science and technology be taught through English. Code-switching was only to be used when English caused ‘great pedagogical problems’ (Ministry of Education, 1999, p.82). The apparent reasons for the recommendation were to improve students’ competence in English coupled with a disapproval of code-switching. This document also recommended that schools develop their own language policies. However, studies like those by Busuttil (2001) and Camilleri Grima (2003) indicate that the recommendation was of very little influence, and teachers continued to use their language/s of preference, with frequent instances of code-switching. The 2012 NCF document (Ministry of Education and Employment, 2012), is less prescriptive. Rather, it outlines what it refers to as “issues related to the language of instruction” (p.41). These include the use of language/s for different learning areas, the language of assessment and the revitalising of the earlier policy recommendation for school-based policies.

The NCF also asks for clear direction with regard to the language of instruction and assessment,

as part of a national language policy. To date, no such policy has yet been produced, but two language-related documents have been published. The first, published jointly by the local Ministry for Education and Employment and the Council of Europe (2015), forms part of a larger report on Language Education Policy in various European countries. The section on medium of instruction is once again placed in the section on 'Issues for discussion'. Issues that merit consideration include the role of English and Maltese as languages of instruction and assessment, particularly with regard to specific learner characteristics. The second document is a language policy document for the Early Years (Ministry of Education and Employment, 2016). It encourages the fostering of a bilingual ethos in early childhood settings, stating the importance of exposing children to Maltese and English consistently. However, the document further states that "when adopting language mediation, the teacher can also switch from one language to the other" (p.13).

Redefining the issue

Although in our most recent policy documents some tolerance is expressed with regard to mixing Maltese and English, I note that a view favouring monolingualism still appears to persist. This is evident through the frequent use of the word 'issue' with which the potential use of two languages is associated. The separation of the languages was perhaps understandable in times gone by, when English and Italian carried great political weight, and were used for different purposes. However, as expressed by Hélot and Ó Laoire (2011), schools should not persist in a 19th century world view characterised by the one language/one nation ideology. Indeed, a monolithic view of language obscures the reality that "many languages are used in different and changing ways, often mixed together, by different people for different purposes" (Barwell, 2016, p.27). Indeed, Cenoz and Gorter (2015) stress that multilingual speakers are creative, using elements from different languages. García (2009) points out that nowadays, bi/multilingualism is not a deviation from a norm, but a common communicative method used by many people in the world. García and Kleyn (2016) consider moves between languages – or 'translanguaging' – to be the "deployment of a speaker's full linguistic repertoire" (p.14).

The ever-increasing educational contexts wherein two or more languages are used, has prompted researchers to study the pedagogic and relational purposes of the practice of translanguaging. For example, Schwartz and Asli (2014) describe the use of Arabic and Hebrew by teachers and children in an Israeli kindergarten; Cenoz and Gorter (2011) focus on Basque, Spanish and English in the Basque Country and Parvanehnezhad and Clarkson (2016) write about a group of Iranian students' switches between Persian (Farsi) and English in two Australian schools. García and Kleyn (2016) highlight the relevance of translanguaging in post-colonial education contexts, where the medium of instruction is often different from the language spoken by the students. To mention but a few studies illustrating this point, Amin (2009) writes about shifts from Modern Standard Arabic to English or French in the Arab region, while Then and Ting (2011) discuss the use of Bahasa Malaysia and English in Malaysia. With particular reference to mathematics education, Halai (2009) focuses on Urdu/English in Pakistan, and Setati, Adler, Reed, and Bapoo (2010) reflect on the mix of English and indigenous African languages in South African contexts.

In line with contemporary perspectives on the flexible use of language, I accept the use of moving between languages in classrooms. Hence, for me, the 'issue of implementation' related to language/s use in different learning areas and the related language of assessment is not so much the use of two languages *per se*. Rather, for me, the issue is how to implement suitable pedagogical strategies that build on the language resources available to the students and the teacher. Of course, I cannot expect a Maltese primary school teacher to know all the languages children with different language backgrounds bring to class. I also acknowledge that English as

the academic language for mathematics is likely to be 'here to stay', at least for the foreseeable future and I follow Morgan (2007) in upholding the need to provide all students with "access to higher status forms of language" (p.241). On the other hand, I am very much aware that for a number of students in a primary classroom – both Maltese and non-Maltese - English is not a home language and that familiarity with the language may vary greatly from student to student. Given that frequent use of the word 'issue' in relation to medium of instruction, I wish to use this position paper to suggest an approach for the teaching and learning of primary mathematics, that might go at least some way in providing language support.

My basic tenet is that rather than using English in the assumption that students will 'pick things up', I follow other mathematics educators and researchers in recommending *explicit* attention to the subject specific language (see, for example, Gibbons, 2015; Lee, 2006; Melanese, Chung & Forbes, 2011; Murray, 2004). This includes not only attention to vocabulary, but also to 'ways of saying' that are particular to the subject. For mathematics this would include the formulation of questions and arguments, various problem genres, the use of the imperative verb (e.g. 'show' / 'construct' / 'calculate') as part of written mathematical text, and so on. Targeting subject content and language simultaneously is referred to as 'Content Language Integrated Learning' or CLIL. While traditionally this approach considered language and content as separate (e.g. targeting the German language by teaching mathematics through German), Dalton-Puffer (2011) notes that a more recent development of CLIL is to focus on *academic language*.

Lave and Wenger (1991) propose that learning can be considered as participation in a community of practice, which involves learning the tools of the activity and gaining autonomy. As students progress in their learning of the 'apprenticeship' of using mathematics discourse, they move from what Lave and Wenger call 'peripheral' to 'full' participation (p. 37). Learning the language of mathematics may be achieved by focusing on this aspect as an integral part of a lesson and encouraging students themselves to use the language productively. Interestingly, giving specific attention to language is implied in the NCF policy document (Ministry of Education, 2012), wherein it is stated that "mathematics concepts and language are [to be] inculcated through systematic teaching and learning activities" (Ministry for Education, 2012, p.51). In the section that follows I explain how this might be done by presenting details of two teaching/research experiences I carried out in two Maltese primary classrooms.

The research context and design

I carried out two small case studies in State-run schools, planning to take on the role of teacher for some days. As stated by Stake (1995), the purpose of a case study is to understand well a particular context. Knowing that non-Maltese students are not distributed evenly in local schools, I requested permission from the authorities to carry out my research in two schools where I anticipated finding a high number and a minimal number of non-Maltese children respectively. The Heads of School then assisted me in identifying volunteer teachers who kindly welcomed me into their classrooms. The topics to be taught in each class was negotiated with the teacher. The classes were a Year 1 class in which I conducted nine lessons on the topic 'Subtraction', and a Year 4 class, in which I conducted five lessons on 'Fractions'. While Subtraction was a new topic for the children, the Fractions lessons served as a revisiting of work carried out earlier in the year. This revision was carried out since the Year 4 teacher explained that while that her pupils had understood well fractions of a region (e.g. of a circle, rectangle, 'pizza' and so on), she felt that they had not fully mastered fractions of a *quantity* (e.g. $\frac{1}{2}$ of a set of 12 stickers, $\frac{1}{3}$ of a group of 15 children).

I recorded the lessons with two cameras strategically placed at the front and the back of the class.

Any pupils for whom I did not have both parental consent and pupil assent to show up on the cameras were placed out of camera view. However, these pupils participated fully in the lessons. Six pupils from each class participated in an informal interview before the series of lessons, during which we spoke about their language preferences. I also gauged their knowledge of the topic to be taught, and the way they expressed themselves through language about the related ideas. (In the case of Year 1, I spoke to them about addition since subtraction was new, but dealt with similar resources that I was to use for Subtraction e.g. fingers, blocks, the Number Line). After the lessons, another interview was held during which we talked about the content of the lessons I had taught. This interview served to encourage the children to once again talk about the mathematical ideas.

The Year 1 class comprised 22 children, who were all five years old. There were 9 Maltese pupils, 7 pupils who had one Maltese and one non-Maltese parent (Australian, Irish, Bulgarian, Serbian, South African, 2 Libyan,) and 6 pupils of other nationalities (Italian, Greek, Hungarian, Ecuadorian, South African, half-Finnish / half Kenyan). The teacher was fluent in Maltese and English but did not know any of the other languages represented in the class. The mixed class prompted her to use English throughout her lessons. She felt that the children were generally comfortable with this approach, although she also reported varying levels of proficiency, especially with productive English. On a one-to-one basis, the teacher sometimes used Maltese with the Maltese speakers, mainly with two pupils who were struggling with the school curriculum. When I gave the mathematics lessons myself, I followed the teacher's lead by giving the lessons in English with occasional Maltese for one to one interaction. The Year 4 class comprised 16 nine-year-old children. All students were Maltese, except one who had one Belarusian parent. This child, however, used language in class in a very similar manner to his peers. Their teacher delivered her mathematics lessons using frequent moves between Maltese and English. As I observed when I sat in for a few of her lessons, and as is quite typical in Malta, English was used for 'mathematical' expressions, for example:

“Issa ħa jibdew jitqalu għax issa għandna long u short ... [issa] ħa nitkellmu fuq objects, fuq il-lengths tal-objects.”

[Now they're going to get harder because now we've got long and short ... [now] we're going to talk about objects, about the lengths of the objects].

English was also used when the teacher read a written text, since this would be written in English. The children generally used Maltese for their communications, reserving English for the mathematical words. When I gave my own lessons, I too used a mix of Maltese and English. However, overall, I used more English than the class teacher since targeting (English) mathematical language was an integral part of my lesson plans. The pupils themselves also used more English than usual, due to my encouraging them in this direction through the lesson steps. Of course I did not put any pressure on the children to use English, making it clear through my interaction with them that they were free to use language as they wished at all times.

Although the linguistic 'make up' of the two classes was different, the attitude I assumed was similar: I considered the children as 'emerging' bilinguals (or plurilinguals as may have been the case). That is, rather than considering the students as having limited English proficiency, I followed Gibbons (2015, p.15) in viewing and treating them as “the people they could become”, given support. When writing up my lesson plans, I followed Gibbon's (2015) advice of listing both subject and language objectives alongside each other; this ensured that a key thrust of the lesson was on the mathematical expression. As Gibbons (2015) explains, the language mentioned in the

plan would not be all the language that may occur, but that which is *essential* to an understanding of the concepts and processes at hand. The lessons' mathematical and language content are given in Tables 1 and 2, with examples given as illustrations of a key language structure.

Year 1: Subtraction	
Mathematical focus and Related language focus
Subtraction as 'separation' (through pictures, blocks and fingers);	Five (blocks) take away two is three.
Symbolisation e.g. $5 - 2 = 3$;	Five minus two equals three.
Real life contexts to model subtraction.	Take away two! How many left? (Simple story problem genre). Luca has five cookies. He eats two cookies. How many (cookies) are left? Subtraction
Subtraction as 'reduction' (movement on the number line)	The frog is on six. He jumps back one. He lands on five.
Symbolisation e.g. $6 - 1 = 5$;	Count back Six minus one equals five. Subtraction

Table 1. Mathematics and language foci for Year 1

Year 4: Fractions	
Mathematical focus and Related language focus
<i>Area model.</i> Fractions of regions (shapes) (shading, recognising, comparison, importance of equality of parts)	Equal parts / whole The numerator/denominator shows us ...; The fraction is one fourth because ...; Two parts out of three are shaded, so the fraction is ...; I think that this fraction is two-thirds – am I right?

<i>Length model.</i> Fractions with Cuisenaire rods	The light green rod is half the dark green rod; one fourth of the purple rod is the white rod; the purple rod is half. Which rod is the whole?
<i>Set model.</i> Fractions of quantities.	One third of twelve is four because...

Table 2. Mathematics and language foci for Year 4

The key elements of the approach were the following:

Using specific vocabulary/expressions myself, to expose the pupils to the language, and in order to model sentence frames.

Displaying key expressions/ constructs in a large font in order for children to see the expressions in a written form.

Offering opportunities for the pupils to use the mathematical language themselves through specifically designed tasks or discussions; these may have been conducted as a whole-class or in pairs.

Overall, the children engaged well with the tasks, and took up the opportunities to participate using the related language.

Reflections on children’s learning

On reviewing and reflecting on the lessons and interview recordings, I noted an encouraging use of language by the pupils. This included increased use of English and, more specifically, using language to target mathematical ideas.

Increased practice of English

In Year 1, there were some children who had limited experience with using English, but they too made an effort to contribute when I drew on them in during the whole-class discussion or when they worked in a pair. This enabled them to practice using English. For example, a Hungarian child started off by saying “*How many is?*” but over two lessons progressed to asking “*How many are left?*” Similarly, an Italian boy who was new to the school, and described by his teacher as the weakest in English, showed a great keenness to participate. His apparent previous knowledge of the subject-content appeared to give him the confidence to show what he knew and this ‘had to be done’ through English. In this class I believe that the sentence frames I modelled offered a structure within which the children could express themselves. For example, when subtracting on a large number line, I modelled the basic structure: “*The frog is on 5. He jumps back 1. He lands on 4*”. The children then took turns to make up examples, while their classmates had to conclude on which number the frog had landed. As might be expected from young children using a second language, their ways of expression were not always grammatically correct. For example Mohammed (Libyan) phrased his word problem as “*Ms Farrugia is, have a ... like ... eleven biscuits and he eats ...em ...six biscuits... How many there are?*” This child had been described by his teacher as weak in mathematics, although fairly proficient in English. Bearing in mind that the child was an emerging plurilinguist, and that the topic at hand was novel to him, I considered his contribution to be a valid example of the word problem genre.

The Year 4 children, being older, had more experience with both English and mathematics. Partly

due to my direction, and partly due to their maturity, the pupils used English to express different mathematical purposes. For example, to justify themselves (“Because the pizza is divided [into] four groups, four slices”), to express relationships (“The yellow [rod] is half of orange [rod]”), to give an if/then statement (“If you shade them all, [then] they will become a whole”), or to self-correct (“Two, four, six. And it is in three groups ... AH! It’s half ... It becomes three because it’s half”).

Use of mathematical language

As stated by Pimm (1987), learning to ‘speak mathematically’ implies learning to *mean* mathematically. Hence, the language targeted, and subsequently used by the pupils, was an integral part of the *mathematics* being targeted. For example, during a paired task, the Year 1 children were expected to remove one card at a time from a set of monster cards, stating, for example, “six take away one is/leaves five”, followed by “five take away one is/leaves four” and so on. One child started his statements with the expression “Take away...”, that is, leaving out the initial number of monster cards. His partner corrected him, saying “FIVE take away ...” I supported this correction, since stating the number of cards in the initial set was an important link with the newly introduced symbolic representation $5 - 1 = 4$.

In Year 4, the teacher had asked me to revise the idea of fractions of a quantity and hence, the sentence structures provided were intended to focus pupils’ attention to number relationships. For example, we analysed ‘mushroom pizzas’ which were divided into sections, each with an equal number of mushrooms on it as shown in Figure 1.

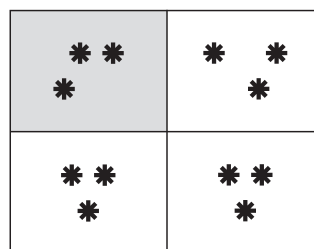


Figure 1. Diagrammatic representation of a ‘mushroom pizza’

The pupils were able to immediately notice that, for example, one fourth of 12 mushrooms is three mushrooms, since based on their knowledge of fractions of regions, this was perceptually obvious from the diagram. However, I then modelled, and expected, ‘reasons’ to be given that expressed relevant number relations. I supported the pupils by offering them a structure with which to work, for example, “One fourth of 12 is three because ...”. Reasons given by the children were: “(because) three times four is 12”, “(because) three plus three plus three plus three is 12” and “(because) 12 divided by four is three”.

Pupils’ use of language during structured interviews

The pupils’ responses during the informal interviews at the end of the topic were also encouraging. During the conversations, I had available all the resources we had used in the lessons, and I used gentle prompts to encourage the children to recall the week’s activities. The Year 1 children were able to explain the nature of the tasks we had carried out, using expressions such as take away, five minus two, count back etc. appropriately as they spoke about what they had learnt during the week. They also expressed the word problem genre appropriately. For example, the Serbian child formulated a problem about himself as follows: “Dragan has five cookies and he ate three, and it’s two”. With regard to Year 4, the topic Fractions had been covered by the class teacher some time earlier and during the first interview, I had asked the pupils to talk about what they knew about the topic. Hence, I was able to compare the language used during the interviews held before and after my lessons. This comparison is given in Table 3 below for three children working on fractions of sets of blocks. The children were described by their teacher as high, average and low achievers respectively. I considered that the better articulation in the second interview was a reflection of the now clearer understanding of the concept at hand.

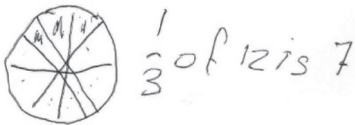
Interview 1	Interview 2
Ella	
<p>1/3 of 12 blocks</p> <p>Twelve divided by 3 ... which is four. 4 times 1 is 4. (<i>Ella makes three sets of four blocks</i>). So one third of 12 is 4.</p> <p style="text-align: center;">MTF: Why did you do that? Divide by 3 and times 1?</p> <p>These because ... because you ... look, first we ... the fraction (<i>points to the 1/3 written on a sheet of paper</i>) tells you that it is divided like that ... Then times one ... one ... I think it's because there's one group?</p>	<p>1/3 of 12 blocks</p> <p>(<i>Ella makes 3 groups of 4 blocks</i>). It's four.</p> <p style="text-align: center;">MTF: How do you know?</p> <p>Because it's one third, and in every 'whole' - 12 is the whole number - and every 'whole' has ... for example if we had one third, it needs to be the same ... it has to be three groups because [it's] one THIRD.</p>
Rachel (average achiever)	
<p>1/3 of 12 blocks</p> <p>(<i>Rachel ignores the blocks, and draws a circular region on the provided sheet of paper. She attempts to divide it into 12, but creates 13 dissimilar parts, shading 3 parts. She counts the parts that are NOT shaded, omitting 3 very small parts</i>). Seven. The answer is 7. (<i>Rachel writes 1/3 of 12</i>).</p> 	<p>1/3 of 12 blocks</p> <p>(<i>Rachel makes 3 sets of 4 blocks</i>).</p> <p style="text-align: center;">MTF asks: How do you know?</p> <p>Because 3 times 4 is 12... Because it's thirds. Fourths would be FOUR groups, fifths would be FIVE groups.</p>
Jessica (low achiever)	
<p>1/2 of 12 blocks.</p> <p>(<i>Jessica places 1 block in front of her, then places two attached blocks next to it; she disregards the remaining blocks</i>). I divided them: one, then two.</p>	<p>1/2 of 12 blocks</p> <p>(<i>Jessica creates 2 sets of 6 blocks</i>).</p> <p style="text-align: center;">MTF asks: Why is that?</p> <p>Because half of six is twelve ... no ... double ... double six is twelve.</p>

Table 3. Year 4 pupils' articulation of fractions of a set

I am aware that the second interview was held the day following the end of my lessons, so that things were 'fresh' in the pupils' minds, while the first interview was held several weeks

after the topic had originally been covered by their teacher. This difference in time-frame may partially explain the difference in responses. Hence, I can only present this data as an encouraging indication of the pupils' use of the mathematical language I had targeted.

Discussion and Conclusion

The conversations I held with the pupils after the lessons led me to conclude that my emphasis on language had been beneficial in supporting them in learning how to use (English) language to express mathematical ideas. For both classes, I concluded that I had gone some way in guiding the children with different language backgrounds and differing proficiency levels of English to appropriate the 'academic' mathematical discourse and hence to increased participation in the practice (Lave & Wenger, 1991).

During the whole class discussions I had a certain amount of control of the interaction and hence, was able to keep the children's attention on the targeted language. During pair work children 'let go' of the targeted language more easily. For example, the Year 1 children's attention at times moved onto things other than the actual task at hand. For example, comments like the following were overhead: "Do you like my green monster?", "Hey! Don't take all the blocks!" Similarly, in Year 4, the children used targeted language less in paired activities. They also used informal talk, usually expressed through Maltese, and used code-switching when talking about mathematics. For example, "Ahjar inpinguom (We'd better colour them)" and "Din x'tigi? One fourth **naħseb. (What's the answer to this? One fourth, I think)**". Such expression is part-and-parcel of a mathematics learning experience that allows for full use a student's language repertoire. Although one cannot expect students (of any age) to interact all the time using 'academic' language, nor is it necessary for the progression of their learning mathematics, the data does highlight the role of teacher in supporting discourse. Ultimately, a teacher will always need to use discretion as to if, and when, to prioritise academic language, that is, if and when to prioritise *form* over *function* of language.

While my general approach in terms of planning was similar in both classrooms, there were differences in the implementation in term of language. In Year 4 I had an added advantage of being able to draw on the children's home language at will. In fact, I used Maltese for informal talk, occasionally during an explanation or one-to-one discussion, or if a child appeared to wish to communicate in Maltese. I also code-switched in a similar way when I spoke to their teacher at various parts of the lesson. One added advantage of the availability of the two languages was that a switch from Maltese to English on my part actually served to signal a point in the lesson when I wished us to focus specifically on expressing mathematical ideas through academic language. This advantage was not present in the Year 1 classroom, except to a very small extent (one-to-one) with Maltese children. Since all the lesson was conducted in English - but also due to their young age - signalling mathematical expressions tended to be done through a stressed intonation, touching displayed written texts, modelling a 'conversation' with their class teacher, and asking children to repeat sentence frames after me.

I noted that in class, the Year 1 children never used their home languages. Their teacher explained that this was generally the case, which implies that perhaps even at this young age, children were already assuming that their home language served no purpose at school. It might be argued that a child may have no-one with whom to use the language; for example, there was only one Greek child in the class, one half-Finnish child and so on. However, the two Libyan children did not use Arabic either, and the Italian boy did not attempt to use Italian even after I had indicated to him that I could use some Italian if he so wished. Meyer, Prediger, César and Norén

(2016) admit the difficulty of implementing the ideal context wherein there is the possibility of all children's languages to be used, but they recommend a situation where first languages are *possible* and *encouraged*, even if the teacher cannot speak them all. Meyer et al., (2016) suggest the definition of key concepts in the various first languages and the importance of drawing on parental participation. For me, this aspect of language is an issue that needs further reflection and begs for concrete steps to be taken.

The National Minimum Curriculum (Ministry for Education and Employment, 2012) recommends school language policies. Possibly, schools may be in better positions to reflect on how language might be used for various subjects and contexts if there is local research available on which to draw. The study I describe in this position paper is an example of such research; more research related to mathematics academic language that can be carried out may include the following:

- Focusing on other Grade levels and other mathematical topics;
- Designing activities that would prompt the pupils to use the targeted language, even when engaging in a task without teacher intervention;
- Working with classrooms wherein more than one child speaks a particular home language; encouraging the use of the language amongst the children and drawing on parental involvement.
- Working with deaf students and their parents, thus also considering sign-language as a home language.
- Supporting students to produce *written* mathematical language; this may be done through, for example, journal writing.
- Giving attention to examination style texts in order to help prepare children for school and national examinations, thus also targeting the 'issue of language of assessment' mentioned in the National Curriculum Framework.

I started this paper by giving a historical outline of the use of Maltese and English in education in Malta. Today, in an increasingly multilingual world, and when participants have various resources available to them, I believe that one cannot persist in a view of language separation. Recent policy documents talk about the language of instruction and assessment in terms of 'issues'. In this paper I have argued that for me, as a mathematics educator, the practice of mixing languages is not an issue *per se*. Rather, to my mind, there are two implementation issues that are pressing. One issue is the need to develop suitable pedagogical strategies for focusing on academic language needed by the students for lesson participation and success in assessment contexts. The other issue relates to the acknowledgement, and even use of, other languages represented in classrooms. The NCF mentions key points of curriculum implementation, the learning of mathematics concepts and language, and inclusive education. Indeed, the NCF upholds principles of respecting diversity and "promoting an inclusive environment" (Ministry for Education and Employment, 2012, p. 32). Engaging in research-based reflection may help us move from policy to practice.

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Section IV
**IMPACTING ON PRACTICE... EXPLORING CURRICULA
AND PEDAGOGICAL ISSUES IN EDUCATIONAL CONTEXTS**

Young children living Bilingually in Malta
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Abstract

Malta presents a unique and interesting sociolinguistic scenario of widespread bilingualism in Maltese and English. Over 95% of the population are ethnic Maltese, learn and use Maltese in their everyday life as a first language, in parallel co-existence with English. In fact, over 85% of Maltese people are also fluent in English. This paper takes a look at the bilingualism of Maltese children aged four to seven, and describes the ways in which the children interact bilingually in the home, at kindergarden and in public play areas across the two Maltese islands. All the studies reported here were conducted independently of each other in the last few years and they have produced remarkably similar results. In each instance a balanced use of each language was observed, such that it can be safely concluded that young Maltese children are already functioning bilingually by age 4-5. This is very similar to the situation found in primary and secondary schools, and in Maltese society in general.

Keywords: children, bilingualism, Maltese, English, Malta

The sociolinguistics of bilingualism in Malta

Recently, while sunbathing on one of the popular Maltese beaches, I heard a brief conversation between a girl about six years of age, who was swimming in front of me, and her mother who was sunbathing next to me

Girl: **Ma issa ejja ilgħab miegħi.**

Girl: **Mum now come and play with me.**

Look ma this is protecting me from
the waves (*showing a piece of wood
she was holding in front of her face*)

Mother: **Iva ejja hawnhekk.**

Mother: **Yes, but come here.**

I immediately realised how typical this use of language was among Maltese children. In this example, the girl utters one full sentence in Maltese (shown in bold) asking her mother to play with her, followed by a full sentence in English giving information about what she was doing, and then her mother reacts by ordering her in Maltese to come close by. In this chapter I would like to show how Maltese children are growing up in a fully bilingual environment, where they are not only exposed to the Maltese and English languages in a non-diglossic context, but to which they are also contributing as active participants by interacting bilingually. The Maltese scenario presents a unique situation where one ethnic group functions bilingually on a daily basis. According to the

traditional concept of languages as depicted by Fishman (1967), it can be described as bilingualism without diglossia because the two languages are used in all social domains and treated on an equal footing. Indeed, the majority of citizens have command of both Maltese and English, in both written and spoken forms to various degrees, and therefore, as explained by Hudson (2002) and by Snow (2010, 2013), such a context would be considered as non-diglossic. According to Fishman (1967, p.85) a speech community that functions bilingually without diglossia must be showing signs of “rapid social change, of great social unrest, of widespread abandonment of prior norms before the consolidation of new ones”. However, the Maltese context challenges this observation because Maltese society has been operating in this way for a good number of decades. While it is true that the Maltese language has been influenced by English on a number of linguistic levels such as the morphological and lexical ones, and that the variety of English used in Malta is described as Maltese English (Brincat, 2011; Vella, 2013) one cannot say that the Maltese language has been in any way ‘swallowed’ by this major international language, or that Maltese English is in any way unintelligible to the international community. In A. Camilleri Grima (2015) I explain this successful bilingual reality in terms of a healthy tension between valuing the Maltese language for identity and self-preservation, while adopting English for instrumental reasons in order to fit in with the rest of the world. There is no doubt that the fact that Maltese was recognised as an official European Union (EU) language in 2004 when Malta became a member state, strengthened the social and political standing of the Maltese language. In this contribution I concentrate on young Maltese children and my aim is to describe and discuss how they function bilingually in Maltese and English in the home, at kindergarten and during play time in public gardens and play areas. I will start by presenting the local sociolinguistic context.

The Maltese Constitution recognises Maltese as the national language and both Maltese and English as official languages (Constitution of the Republic of Malta 1974, Section 5). Maltese law is written in both language versions, although the Maltese one is binding. In public administration, for example, the Gazzetta tal-Gvern ta’ Malta/ Malta Government Gazette is published on-line in two separate language versions, but it is printed and is available in pdf format on- line with the two languages appearing side by side on the same page, as shown in Figure 1.

BORD TAD-DIRETTURI TAL-KORPORAZZJONI GHAS-SERVIZZI TAL-ILMA	WATER SERVICES CORPORATION BOARD OF DIRECTORS
<p>NGHARRFU b’ din illi bis-saħħa tas-setgħat mogħtija lill bl-artikoli 5 u 7 tal-Att dwar il-Korporazzjoni għas-Servizzi tal-Ilma, il-Ministru għall-Enerġija u s-Saħħa għogbu jahtar mill-ġdid lill-Bord tad-Diretturi tal-Korporazzjoni għas-Servizzi tal-Ilma kif jidher hawn taħt b’seħħ mis-27 ta’ April, 2015 għal perjodu ta’ sena.</p>	<p>IT is notified that, in exercise of the powers conferred through articles 5 and 7 of the Water Services Corporation Act, the Minister for Energy and Health has re-appointed the Water Services Corporation Board of Directors with effect from the 27th April, 2015 for a period of one year.</p>

Figure 1: Extract No 608 from the Gazzetta tal-Gvern ta’ Malta/Malta Government Gazette (30 June 2015, page 11, 345)

The Maltese media is roughly equally divided into English and Maltese broadcasts on radio, television and in printed matter. Two of the four daily newspapers and five of the eleven weekly

papers are in English. Out of the thirteen Maltese radio stations at least six broadcast in Maltese, a couple of others have programmes in both languages such as the University-based station *Campusfm*, and the rest broadcast only in English (Vella, 2013). There are six local TV stations and on all of them most programmes are transmitted in Maltese, but films and documentaries, as well as adverts in English are shown. Films in Maltese in local cinemas have recently started to be shown, such as the successful film called ‘Simshar’ based on a real life tragedy at sea. Telenovelas in Maltese on local TV stations are very popular. English documentaries and other programmes in English on TV, and films in English at the cinema, are shown without dubbing. In 2015 a new radio and TV station were inaugurated in order to transmit live parliamentary sittings which are always carried out in Maltese. In education, although the teaching of the majority of subjects relies on textbooks in English starting from the Early Years upwards, the use of Maltese is widespread especially as a spoken medium of communication among learners and between the teacher and the learners (Camilleri, 1995). Bilingual classroom discourse in Malta has been well researched, and there is clear evidence that the learners’ linguistic repertoires, including the dialects of Maltese, Standard Maltese and English are, in many cases, admirably used to promote and sustain learning across subjects (Camilleri Grima, 2013; Farrugia, 2013; Gauci & Camilleri Grima, 2013). It will suffice to say that at school leaving age (age 16), the national matriculation examinations required for entry to further education include five subjects, namely Maltese History, Social Studies, Religion, European Studies, and Environmental Studies, in which candidates are allowed to answer questions in either Maltese or English. The language subjects are examined in the language under investigation and the rest are examined in English.

To gain entry to a post-secondary institution and/or to the University of Malta, candidates must pass the examinations in Maltese, English, Mathematics and one Science subject. To enter teacher education courses at the Faculty of Education of the University of Malta, passes in written and spoken proficiency tests in both Maltese and English are obligatory. The de facto bilingual school policy has been in place for many decades and it will remain so in the foreseeable future given that both the Maltese government, as well as European policy, support bilingualism (Commission of the European Communities 2007; Council of Europe 2015). National statistics, based on self-report data, give a clear picture of how the vast majority of the Maltese people are bilingual, with more than a third of them being trilingual (Table 1).

Languages spoken	Well	Average	Total	% of Maltese citizens
Maltese	352,121	5,571	357,692	90%
English	248,570	61,709	310,279	78%
Italian	93,401	62,863	156,264	39%
French	11,698	18,886	30,584	8%
German	3,979	3,987	7,966	2%
Arabic	3,948	2,457	6,405	1.6%

Table 1: Languages spoken in Malta (Adapted from the Census of population and housing 2011, National Statistics Office 2014)

The essential characteristics of the speech community under investigation that need to be highlighted are that, (i) it consists of a single ethnic group; (ii) it has experienced bilingualism

historically for many centuries. For instance, there was a degree of bilingualism concerning the Maltese vernacular and the Latin and Italian languages from the Middle Ages to the latter part of the nineteenth century (Brincat, 2011); (iii) both Maltese and English have been present in the education system since education became compulsory for all at the beginning of the twentieth century under British rule; and (iv) to a lesser or greater degree the Maltese population has been functionally bilingual in Maltese and English for decades, with each language expanding its roles, e.g. English gaining important ground in the tourism industry which is the mainstay of the Maltese economy, and Maltese developing intensively in terms of lexical elaboration. Malta's entry to the EU offered the opportunity for EU legislation to be translated into Maltese, and this created a new translation and interpreting industry. Such new language services brought about "an expansion of the language's functional range, allowing it to serve, for example, as a medium of scientific and technical discourse" (Ferguson, 2006, p. 24). Since the focus of this article is on children, in the following sections I will focus on three domains: the home, the kindergarten, and the public play area, in order to describe the bilingual life of young Maltese children. In order to do this, I will draw mainly on the research conducted by Sultana (2014), Scerri (2015) and Caruana Lia (2016).

Bilingualism in the home

Sultana (2014) observed two boys (names changed to Aron and Brent) and two girls (names changed to Clara and Donna) aged 4–5 years in their homes. She visited the families for an average of four hours per week at different times during the day, over a period of nine months during 2013. All four children who were chosen randomly by convenience sampling (Cohen, Manion & Morrison, 2000, p. 102), resided in a central conurbation, attended the local state kindergarten and hailed from working class families where none of the parents had attended school beyond the age of 16. At the start of the study it was ascertained that all the parents spoke Maltese as L1 but also had knowledge of English. In addition to her field notes and recordings the researcher asked the parents to keep a language diary on certain days of the week for fourteen weeks in which they recorded samples of speech during activities such as waking up the child, getting the child dressed, during meals, dropping off or collecting the child from school and other daily routines. Tables 2 and 3, based on Sultana's (2014) work, present a succinct picture of the presence of Maltese and English in the home life of these children. Table 2 takes into account three types of activities carried out by the children, namely, watching television, using the internet, and reading books. The internet is largely used in English, although Clara was observed to use one Maltese site. Books, on the other hand, were widely available in both languages. As Table 2 shows, books in English are likely to be more plentiful in the home.

In order to obtain a more holistic picture of bilingual life at home it is necessary to look at Table 3 which provides the percentages of spoken language in the homes of the four children. In the case of Aron, Brent and Clara, Maltese was much more profusely used than English by the children and their parents. In the case of Donna, there was a more balanced bilingual interaction.

Aron is an only son whose father works at the airport interacting mainly in English at work while his mother works in a factory using almost only Maltese. The language of the home is largely Maltese, but English is used in polite formulas, as in 'good morning' and 'please'; and to refer to items such as 'socks', 'noodles' and 'toast'. Aron did utter sentences in English occasionally such as, 'Today I am going to school with dad' when addressing the researcher. The researcher spoke Maltese to the child but the child was aware that she was a 'teacher' and this could have triggered his use of English. Many other utterances addressed to the mother were in Maltese: 'tini oħra għax għandi l-ġuħ' (give me another one because I'm hungry); 'ma rridx brodu, ma rridx lañam' (I don't want broth, I don't want meat).

	T.V. programmes	Internet	Books
Aron	Only in English	Only in English	Equal number in Maltese & English
Brent	All in English except one in Maltese and one in Italian	Only in English	Two-thirds in English and one-third in Maltese
Clara	Mostly in English but watched two in Maltese and three in Italian	All in English but one site in Maltese	Two-thirds in English and one-third in Maltese
Donna	Only in English	Only in English	In English except for one book in Maltese

Table 2: Children’s exposure to Maltese and English at home

	Aron	Aron	Brent	Brent	Clara	Clara	Donna	Donna
	child	parents	child	parents	child	parents	child	Parents
Maltese	87%	85%	81%	64%	76%	90%	47%	59%
English	13%	15%	19%	26%	24%	10%	53%	41%

Table 3: Percentages of Maltese and English words used by children and their parents

Brent has an older sister aged eleven. Their mother is a housewife and their father is a computer technician and is more likely to use English at work than the mother. Although Maltese is clearly the dominant language of home conversation, the mother said she makes a conscious effort to address Brent in English, for instance, when dropping him off at school: ‘Bye’, ‘God Bless you’, ‘take care’, ‘be good’, ‘pay attention’. Brent’s parents reported that they had made a conscious decision to adopt Maltese as the language of the home, and to expose their children to English through books and by occasionally using English with them. Brent’s utterances in Maltese tend to be longer than those in English, as in:

Brent’s utterances in Maltese

Iva kollox kilt.

(Yes I’ve eaten everything)

Ma rridx laring illum.

(I don’t want any oranges today)

Ma rridx niekol is-soppa.

(I don’t want to eat any soup)

Illum għall-iskola?

(Are we going to school today?)

Brent’s utterances in English

Bye bye

Good night

Show!

I love pasta

Clara has an older brother aged ten. The mother is a housewife and the father is a store-keeper and they use Maltese throughout the day. Nevertheless, they sporadically use English, for instance during meal times: ‘Do you want any more?’, or when dropping off Clara at school: ‘Bye, love you’. The mother admitted that she sometimes makes an effort to speak English to her daughter in order to provide Clara with an opportunity to feel more confident in an English speaking environment. The following are some examples of Clara’s utterances:

Clara’s utterances in Maltese

Ma kiltx kollox illum.
(*I didn’t eat everything today*)

Ma rridx aktar.
(*I don’t want any more*)

Kemm hu tajjeb.
(*This tastes really nice*)

Clara’s utterances in English

Thank you.

Love you.

Good morning.

Donna has an older sister aged nine, and a younger brother aged two. The father works in a factory where Maltese is used and the mother is a housewife and uses Maltese predominantly in the household. However, during the observations it transpired that in the presence of the brother-toddler, English is used as a form of ‘motherese’, using words like ‘paint’, ‘pink’, ‘chocolate’, ‘nice’, ‘police’, ‘cereal’, ‘strawberry milk’; and other adapted words like ‘wakey, wakey’ for ‘to wake up’, ‘milky’ for milk and ‘facey’ for ‘face’. Given that the mother speaks in this way to the young brother, Donna imitates this and uses the same form of motherese. It is interesting that as Borg (2011) notes, the use of English as motherese is eventually replaced by the use of Maltese as the children grow older. The final reflection I would like to make about language use in the Maltese family is that all the parents included in Sultana’s (2014) project were surprisingly aware of how Maltese and English were being used at home. The following quotations from the interviews with these parents illustrate how the children’s parents spoke about their language use in the home:

L-iktar li nitkellmu bil-Malti. Bil-Malti drajt u l-Malti l-lingwa tagħna. Meta jkun hemm kliem aktar faċli bl-Ingliż bħal ‘bus’, ‘car’ nuża l-Ingliż biex ikun jaf jitkellem mal-barranin u meta ma jkunx jaf xi kelma bl-Ingliż naqleb

għall-Malti jew nuża terminu ieħor.
(Aron’s mother)

Donna qed titgħallem il-kuluri biż-żewġ lingwi imma l-aktar li nużaw l-Ingliż, pereżempju ‘orange’ mhux ‘orangjo’, ‘pink’ mhux ‘roża’. Meta nara li Donna mhix qed tifhem meta nsaqsiha għal xi kulur li ngħidilha bl-Ingliż, nirrepeti bil-Malti. (Donna’s mother)

We speak mainly in Maltese. I’m used to speaking Maltese and Maltese is our language. When I find easy words in English like ‘bus’, ‘car’ I use English so that Aron will know how to speak English to foreigners,

and when he does not understand a word in English I switch to Maltese or use another term. (Aron’s mother)

Donna is learning the colours in both languages but we use English more frequently, for example ‘orange’ not ‘orangjo’, ‘pink’ not ‘roża’. When I feel that Donna is finding it difficult to pick the right colour from a set of crayons if I ask her in English, I repeat the colour in Maltese. (Donna’s mother)

During the interviews the parents were able to speak about their employment of bilingualism fluently and with ease. They all explained that Maltese was the first language of the home, and that they were aware of how English pervades their children's life; of how they sometimes shifted from one language to another and of how at times they made an effort not to; and that their overall belief was that while Maltese was a natural and obvious choice, it was necessary to expose their children to English as this was crucial in education and for life. This perspective that English is synonymous with education is also attested by Borg (2011).

Bilingualism in early childhood education

The first study in Malta that looked specifically at language in a kindergarten setting through observation was that of Banković (2012). This was a case study that studied language use in two kindergarten classrooms with children aged 4. According to Banković (2012, p. 72):

The findings showed that acquisition of English was a priority. Activities which had great potential for children's learning and development were organised. These include storytelling, drama and crafts.

Similarly, Sultana (2014) conducted six hours of observation in three kindergarten classrooms in a large state school located in the largest town of Malta. Table 4 gives an idea of how the teachers of the children mentioned in the previous section, Aron (Teacher A), Brent and Clara who were in the same class (Teacher BC), and Donna (Teacher D), adopted language by activity.

The following table illustrates the number of activities by language during researcher's observation period.

	English	Maltese	Both languages
Teacher A	1	5	8
Teacher B C	2	6	8
Teacher D	0	11	4

Table 4: Number of activities by language in three kindergarten classes (Sultana, 2014)

The information gleaned from Table 4 suggests that while Teacher A and Teacher BC conducted many activities in Maltese with a majority of activities utilizing both languages, Teacher D emphasised Maltese. Indeed, the teacher herself is a significant variable when it comes to language choice in Maltese classrooms (Camilleri, 1995). As mentioned by Banković (2012), Sultana (2014) also refers to the use of songs, CDs, and games in English and, in fact, this naturally results in the use of English and Maltese within the same activity because the dialogue and interaction with the children in activities using English media tends to involve Maltese anyway. The following is an outline of a two-hour period of observation in Aron's kindergarten classroom:

First: Children watch video in English called 'Noah's Ark' twice	The volume of the video is very low and the children do not seem to be paying much attention.	This lasts 35 minutes.
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Second: Activity in English about letter sounds like 'cl' (cliff, clap), including a word search game.

The children write down words, colour the words starting with the 'cl' sound.

This session lasts 45 minutes. The teacher speaks mostly in English to the group and to individual pupils but towards the end of the activity switches to Maltese.

Third: Activity in Maltese, including reading and vocabulary work.

At the start of the activity the teacher specifies that now they are shifting language to Maltese 'Mela tfal, issa ħa naqilbu għall-Malti' (*so, children, now we are switching to Maltese*).

This activity lasts for 30 minutes and ends with a prayer in Maltese.

It is typical of teachers to draw pupils' attention to the use of either Maltese or English at any point in the interaction. In the example from Teacher A's class above it was toward the end of the activity in English, and highlighting that the next activity was going to be in Maltese, that the teacher announces the switch from English to Maltese. However, in the following excerpt transcribed from a recording of an activity in Teacher BC class (Sultana, 2014, p. 52), the teacher requests the use of English half-way through the interaction:

	Interaction	Translation
Teacher	What should we do before we cross the road?	
Brent	Inħarsu 'l hemm u 'l hemm.	<i>We look there and there</i>
Teacher	Why?	
Brent	Biex jekk ikun hemm karozza nieqfu.	<i>So that if we see a car we stop.</i>
Teacher	Try to speak in English	
Brent	When we are crossing the road we look this way and that way	
Teacher	Very good !	

Even from this brief interaction one can appreciate how Brent could understand and speak English, but using Maltese came more spontaneously to him as he answered in Maltese to the teacher's questions in English. The teacher, on her part, insisted on an answer in English and Brent was able to give it. This is quite typical of bilingual use in Maltese classrooms throughout the age groups (Camilleri Grima, 2013; Farrugia, 2013).

Caruana Lia (2016) has observed, recorded and transcribed kindergarten lessons with children aged 4 in two different schools. The data on language use that emerges from her lesson transcriptions is very interesting, and concurs with previous findings. For example, in one of the story-telling activities, there is constant reference to explicit metalinguistic awareness activities,

as in, 'X'ngħidulha bil -Malti?' (what is this called in Maltese), and 'X'number hu tnejn in English?' (How do you say number 2 in English). During a reading activity the book is in Maltese but rather than simply reading it out aloud the teacher discusses the pictures with the children. This means that they sometimes identify objects in the pictures using English, like 'tomatoes', 'pumpkin' and 'treat'; and sometimes in Maltese, like 'pala' (spade) and 'gallinar' (hen coop). Many a time, when the children give the word in English the teacher asks explicitly for the equivalent word in Maltese 'Black in English. Bil-Malti x'ngħidulu black?' (What is black in Maltese?); or simply repeats the word or phrase in Maltese. 'kanna tal-ilma in English jgħidulha water spout' (in English is called water spout). This happens at other moments during the day like in the morning when the teacher says 'good Morning in English u bongu bil-Malti hux veru?' and 'Ejja tlaqna, hurry up'. More significant is when during the teaching of the alphabet the teacher asks for a student's name that starts with the 'sound 'g' in English and another one with 'j' in English'. The letter 'g' in Maltese sounds like the first letter of George and the 'j' as the first letter of Yanika. So the teacher emphasizes how the names sound in English by referring to alphabet letters in Maltese.

During an activity which involves the practice of numbers, and includes a number song in English, all the numbers are uttered in English (Caruana Lia, 2016). The following is an excerpt from the conversation that follows the song:

		<i>Translation</i>
Teacher	Dak x'number hu? (<i>pointing to different numbers on the board</i>)	<i>What number is that?</i>
Girl	Five, seven, six.	
Teacher	Brava	<i>Good girl.</i>
Girl	Four	
Teacher	Għoddhom.	<i>Count them.</i>
Girl	One, two, three, four.	
Teacher	Dan x'number hu? (<i>pointing to different numbers on the board</i>)	<i>What number is this?</i>
Girl	Five, four, three, six.	
Teacher	Very good! Tini six.	<i>Very good! Count to six.</i>
Girl	One, two, three, four, five, six.	
Teacher	Very good. Ċapċpulha. (<i>The children clap their hands</i>)	<i>Very good. Give her a hand.</i>

The use of Maltese and English when referring to numbers was researched by Cucciardi (1990). He found that Maltese people refer to numbers in English when telling age, class at school, bus numbers, bus fares, and lotto numbers. The same group of respondents used Maltese when giving the time and telling the number of family members. When referring to the cost of objects there was a tendency to use English when mentioning cents and Maltese when referring to pounds (Cucciardi's study was conducted prior to the introduction of the Euro). When giving the date or the date of birth, there often was a mixed language construction as in: 'it-tmienja ta' Jannar, nineteen seventy-four' (8 January 1974).

As a concluding remark on the use of Maltese and English at kindergarten level, it must be affirmed that teachers often draw the children’s attention to whether they are speaking one or the other language, often ask for the equivalent word in the other language, and when giving instructions or explaining something they repeat in both languages: ‘Close your eyes. Għalquhom sew. Kulhadd għajnejh magħluqin sew. So I want you to close your eyes. Close your eyes’ (Close your eyes properly. Everyone close their eyes tight), and as in ‘Twaħħal, sticky, hux vera twaħħal? (It is sticky, isn’t it sticky?).

Bilingualism in public play areas

Scerri (2015) carried out extensive data collection in public play areas and gardens across the islands of Malta and Gozo. This researcher (Scerri, 2015) spent about thirty hours observing a random sample of children and noting their linguistic interaction. Several of her findings are noteworthy of mention, such as the fact that in Malta’s island of Gozo the parents or adult carers are much more likely to be involved in the child’s play: 81% of conversations in Gozo involved an adult, while 45% of conversations in Malta involved an adult. However, both in Malta and Gozo, whenever an adult was involved it was largely to give instructions and directions to the children. Indeed, in only one conversation held between a mother and her son did the mother ask questions about colours instead of instructing him to do something using the imperative form. Another important finding is that while in Malta the languages used are Standard Maltese and English, all the conversations recorded in Gozo consist of dialectal Maltese and English. (For detailed reviews of dialects in Malta and Gozo see Azzopardi-Alexander, 2011; Borg, 2011; Camilleri Grima, 2009). Scerri’s (2015) analysis is largely qualitative, but she also produced word counts in order to quantify the use of Maltese and English. Out of a total of 5,024 words, 2,713 (54%) are in Maltese and 2,311 (46%) are in English. This is rather similar to a word count based on a set of lesson transcriptions noted in another study (Camilleri, 1995), which included 48% Maltese words and 52% English ones. Scerri (2015) gives a breakdown of her word count by locality in Malta and Gozo. It transpires that in Gozo 63% of words are uttered in Maltese as opposed to 37% in English. In Malta, there are four localities (Naxxar, President’s Garden in Attard, Sliema, Ta’ Qali) with a significantly higher percentage of English words as opposed to three localities (Birzebbuga, Rabat, Qormi) where Maltese predominates. Scerri (2015) found that it is not unusual for children to play together for some time without actually talking to each other. Furthermore, she noticed that when children talk during play their utterances tend to be very brief. In order to delve deeper into this issue I conducted an MLU (mean length of utterance) analysis of the play area transcripts in order to check whether there were obvious differences in the length of the children’s utterances when they spoke in Maltese and in English. I found that the MLU of utterances in Maltese is 2.8, in English it is 3.6, and in utterances containing elements from both languages it is 4.4. This could be rather surprising at first, but upon further linguistic examination it comes to light that a semantic meaning in Maltese which is expressed in single word items, in English it requires two words or more. Consider the following examples, which are expressions with equivalent meaning, found in the data:

Maltese	English
inżel	climb down
ejja	let’s go
attent	watch out
lesta	I’m free

Furthermore, it is important to note that mixed language utterances amount to only 14% of the total number of utterances in Scerri’s (2015) data, since 51% of utterances were in Maltese and

35% were in English. In the mixed utterances, 8% contain only one word in the other language, and among these Maltese tags in English utterances predominate, as in: 'It's rolling ok, hux?' (isn't it?). When whole phrases in each language are used in one utterance, as in: 'Pa nista' I get down?' (Dad, can I get down?), such utterances would have a larger MLU. And more significantly, intersentential switching is much more frequent. Consider the following example from Scerri's (2015) transcript in which Boy A opens the conversation by asking a question in Maltese to which Boy B replies in English. When Girl A joins the conversation she first used English and then immediately switched to Maltese. Girl B joins the interaction by first speaking in Maltese and then switching to English. Indeed, such intersentential switching is much more typical than mixed sentences.

	Actual conversation	Translation
Boy A	(after a short period of silent play) X'ghamiltu l-iskola?	<i>What did you do at school?</i>
Boy B	Insects, ants, birds, parrots	
Boy A	Le, jien minn hawn (<i>referring to the direction of play</i>)	<i>No, I'm going this way.</i>
Girl A	Are you going? Jien minn hawn.	<i>I'm going this way.</i>
Girl B	Ara x'ghamel! There's a big dinosaur.	<i>See what he did !</i>
Boy A	I've had enough.	
Girl A	Ejja nerggħu nitilgħu.	<i>Come let's go up again!</i>

Conclusion

Young children in Malta are exposed to two languages and probably other ones as well, through the media, in books, and their environment. At school, especially, there is a constant reference and awareness raising to which language is being used, such that if something is expressed in English the teacher would request the children to find the equivalent in Maltese and vice-versa. In fact, this is a fundamental characteristic of bilingualism in Malta, i.e. there is a constant and obvious individual and social consciousness of whether communication is being carried out in English or Maltese.

In Camilleri Grima (2001) I examined the relationship between language use in the Maltese bilingual classroom on the one hand, and in the societal context within which the classroom is embedded, on the other. I concluded that the classroom is a microcosm of Maltese society because the discursive and literacy events taking place inside it are a reflection of societal values and identities. In turn, they shape and elaborate the linguistic repertoire of Maltese bilinguals. The data presented in this chapter corroborates the previous findings because, for example, the reading of books and the use of internet sites by children is much more extensively done in English than in Maltese, while spoken discourse by parents, kindergarten teachers and young children is largely conducted in Maltese. The overall picture that emerges is one of balanced bilingualism across social domains.

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Section IV
**IMPACTING ON PRACTICE... EXPLORING CURRICULA
AND PEDAGOGICAL ISSUES IN EDUCATIONAL CONTEXTS**

**Grammatical Difficulties in Foreign Language Writing:
The Case of Maltese Learners of French as Target Language**

Neal Sammut and Anne-Marie Bezzina

Abstract

This study attempts to describe Maltese learners' foreign language (FL) grammatical difficulties within the context of the teaching and learning of the writing skill in French as a Foreign Language (FFL). An in-depth analysis is carried out of a corpus of 120 French essays provided by Year 10 and Year 11 students of FFL (fourteen to sixteen-year old learners) in six Maltese secondary schools. Grammatical errors in seven distinct grammatical categories are counted. Special emphasis is laid on the verb category, which appears to be the most problematic word class. Errors concerning verbs are divided into four further sub-categories according to their type: wrong conjugation, wrong tense, wrong mood, and absence of an obligatory verb. A descriptive analysis of these main difficulties illustrates learners' most frequent errors. An interpretation is attempted of the possible sources of error: although learner motivation issues may partially account for the observed situation, a linguistic explanation can be provided through the fact that grammatical performance lies naturally within learners' interlanguage (Selinker, 1972), based on a structurally intermediate status between the native and the target language. Within this interlanguage, the corpus includes errors seemingly caused by different processes: some patterns are borrowed from the L1, others are extended from the FL itself, and attempts at expressing meanings using already known words and grammar are observed. Questions are asked in relation with main themes concerning the teaching of grammar and writing, involving institutional constraints, the need to adopt improved teaching methods and teacher training, and the washback of the current examination system.

Keywords: grammar errors, application, writing, sources of error

Grammatical errors in learners' written texts

Developing competence in writing is no easy feat, especially in a foreign language (Harris & Mason, 2005; Kurk & Atay, 2007). Grammatical errors are a recurrent phenomenon in foreign language (FL) writing (Bentayeb, 2012; Namukwaya, 2014). The scope of grammar teaching in learners' training for the acquisition of the writing skill has long been a subject of debate by teachers and researchers (Torgerson et al., 2006). Whereas in traditional language teaching, grammar was presented explicitly and massively, in more recent methods, its role is not always well-defined (Manley & Calk, 1997). With the advent of the communicative approach, Canale and Swain (1980) propose a theoretical model in which communicative competence is based on grammatical, sociolinguistic, discursive and strategic competencies. The focus of this study is on learners' grammatical competence, so fundamental in language that if one were to exclude it completely, communication would be restricted to the use of isolated words, sounds and

gestures (Azar, 2007). Since writing is a major tool for communication, grammatical ability is important within the framework of written language competency.

In Malta, the educational sector comprises State Schools, which cater for around 55% of the population, Church Schools (around 33%), and fee-paying Independent Schools (around 12%). Students choose a FL, from among a choice of proposed languages, to study as from their entry into the secondary cycle. French is traditionally the second most chosen language, after Italian, although for a number of reasons, French is rapidly losing ground to other languages (Bezzina, 2016). Students who show lack of advancement in their language acquisition after two years of studying a foreign language may, especially in State Schools, opt to continue their studies following the Subject Proficiency Assessment (SPA) route, which offers the possibility to revise the basics and is geared towards building proficiency in a balanced way across the four sub-skills. The majority of students follow the Secondary Education Certificate (SEC) syllabus. Students need to sit for SEC examinations at the end of their secondary education, to obtain a number of passes allowing them to proceed to post-secondary education. SEC language examinations, as well as end-of-year secondary and post-secondary examinations, give a lot of weighting to the written component, and thus to grammatical accuracy. Sammut (2017) explains how in the French SEC examination, 70% of the marks are allotted to components falling within the brackets of writing.

Our experience in the teaching of French as a Foreign Language (FFL) locally has made us aware of a substantial level of difficulty encountered by learners at Secondary, Intermediate and even Advanced levels of learning, especially when learners need to produce longer texts calling for more complex written structures (Sammut, 2012; 2017). It seems to be more than just our personal impression that learners are knowledgeable about grammar rules, but that their performance is generally poor when they need to apply these rules in longer writing. In fact, the Examiners' Report (2016) for Paper 2A of the French SEC examination states that candidates' general performance was 'good' or 'satisfactory' in grammar exercises 3 and 4 (respectively requiring matching and fill-in-the-blanks), and that it was 'a pleasure' to note that even the Pluperfect tense was worked out correctly (Chairperson, French SEC Examiners' Panel, 2016, p. 5). The same could not be said of candidates' performance in the writing tasks, in which verb tenses 'presented huge pitfalls' and sentence structure 'proved to be problematic' (2016, p.4). The report is precisely concluded by the remark that 'Candidates need to understand not only the particular grammar points but also their application so as to strengthen their linguistic performance' (2016, p. 5). Examiners' Reports for the MATSEC Advanced French examination, which local candidates sit for at the end of their Sixth Form course, also stress learners' linguistic shortcomings, especially in essay writing. These grammatical difficulties, as well as learners' struggling to develop and organize ideas, whilst transforming them into a legible text, create frustration and a negative attitude in the students towards the practice of writing (Sammut, 2012; 2017).

It is important for students to avoid distortions to their intended message because of their inability to use grammar adequately. However, mistakes are part of a natural process of competence building along the language learning journey. Far from reducing the teaching / learning of a new language to imparting / memorizing grammatical rules, grammar must be treated as a tool for effective communication. The question arises of how much local FL teaching effectively follows the aim of enabling learners to communicate in real-life situations, which are pertinent to the students' likes and needs. In recent years, academic research based on observations of Maltese FFL lessons, with or without recordings, has increased. How far can one attribute to coincidence the fact that researchers observe a vast majority of grammar and comprehension lessons, as

opposed to training for production, both orally and in writing? Teachers themselves confirm this imbalance favouring the teaching of grammar rules (Sammut, 2017).

The notion of error in FL learning

One characteristic of errors in the moral domain is that they are involuntarily committed, whereas mistakes are produced in a state of awareness of the infraction (Messina Ethé & Onana, 2014) and are thus defined as an infringement of a rule or a principle (Le Robert-Dixel, 2012). This is in line with Corder (1974), who, from a didactic point of view, proposes that mistakes are non-systematic and appear in the use of the L1, being the results of fatigue, tension or other psychological causes. Errors are, on the other hand, systematic because they appear in the practice of the FL, and are linked to the lesser degree of competence in the target language (TL). Self-correction of mistakes, but not of errors, is thus more possible (Gass & Selinker, 2008).

In the traditional system of language teaching, language was seen as a set of rules and exceptions, so grammar was explicitly taught, focus was on writing and reading, and language errors were systematically sanctioned. The Direct Method, applied as from the end of the 19th century, marked a radical shift, as it strove to make learners acquire a solid practice of the spoken language. However, it still did not tolerate errors and it was expected of learners to avoid them. The spoken language continued to be given preference in the Audio-lingual and Audio-visual approaches of the 1940s up to the 1960s, where learning of structures by imitation and automatic production of morpho-syntactically correct sentences were paramount. In contrast with these rigid impositions, the Communicative Approach developed as from the 1970s targets learners' communicative needs, whilst providing for an improvement of their linguistic competencies. While the four sub-skills supposedly receive attention and are practised in authentic contexts, errors occurring in any of them are perceived as necessary and as a natural reflection of the state of evolution of the learner's interlanguage (Porquier, 1977). To the nowadays appreciated value of formative assessment corresponds an increased significance of errors as an indication, to teachers and learners alike, of effective progress as well as persisting difficulties. The different sets of beliefs which succeed each other in FL teaching, rather than die out completely, tend to leave traces in teachers' pedagogical practices. This may happen, if for no other reason, because teachers will often have witnessed, in their young age as students, a certain teaching ideology, even though they will subsequently receive training to teach according to another set of methods. It is thus important to understand how errors have been perceived and treated in the different teaching methodologies, because each of these, to a greater or lesser degree, contributes to forge a basis of teaching tradition. Thus, in the Maltese FL scenario, one often speaks about a rather traditional, grammar-based and teacher-dominant approach which still tends to be observed in classrooms (Camilleri Grima & Caruana, 2016; Bezzina, 2017; Sammut, 2017; Bezzina & Gauci, 2018).

Major types of error in target language (TL) writing

Errors related to form can be of a syntactic, lexical, morphological and orthographic nature. Corder (1973) places grammatical errors within four categories: omission, or the absence of an obligatory element, addition of elements unnecessary to the utterance, substitution, or the incorrect use of a morpheme or structure, and word order, when a morpheme or group of morphemes is wrongly placed in an utterance. A distinction also needs to be made between errors, which somehow distort the global message of a text, and minor errors, which do not have a direct effect on the message (Burt, 1975).

Possible causes of errors

It is proposed here that causes of error can be classified into three categories, namely situational,

affective and linguistic. Situational causes refer to the learning context, and may include a bad choice of textbook / teaching method, or an inferior level or style of teaching. Secondly, errors may also be the result of a lack of motivation on the learner's part, leading to negligence, or of insecurity, leading to the learner's reliance on words, phrases or idiomatic expressions known in the L1 or in other previously learned languages, which s/he literally translates. Finally, a linguistic explanation of the occurrence of errors can be provided through the fact that grammatical performance lies naturally within learners' interlanguage (Selinker, 1972). The interlanguage, or intermediate status of language knowledge, follows a process of development leading progressively further from the L1 and closer to the TL. However, in a learner's interlanguage, the partial knowledge of the FL differs from both the native and the target languages, as the learner effects a restructuring of the TL using rules which are connected with the L1 and / or the TL (Koutsoukos, 2002). Within learners' interlanguage, errors can be both interlingual and intralingual. Interlingual errors result from interference of the L1 or other previously known languages, which cause negative transfer of structures, vocabulary, morphology and pronunciation. Intralingual errors are directly connected with the acquisition of the FL, which, as we have said, for a foreign learner would be at an imperfect and provisional state. According to Richards (1971), learners experience overgeneralization (using the wrong form on the basis of other existing forms in the TL), lack of knowledge or rule constraints (applying rules in contexts where they are not applicable), inadequate application of rules (lacking knowledge to apply a structure which has been well learned), and the construction of false systems or concepts (having difficulty to completely understand distinctions within the TL).

Locally, there have been a few studies on the possible sources of errors appearing in the performance of Maltese learners of FFL. Bezzina (1999) provides an analysis of problems in the pronunciation of French specifically by Maltese learners. Skinner (2010) deals with errors in using the *passé composé* (perfect) tense in writing by FFL learners. Morpho-syntactic difficulties, which are our main object here, are the focus of Seychell (1996), and Seychell (2007) deals with interference on the morpho-phonetic, syntactic, semantic and pragmatic levels.

The research design

Several issues were kept in mind when designing the nature of empirical data that needed to be acquired for this study, and data procurement methods. The main problem to be investigated stemmed from the observation that students find difficulty in applying rules in writing despite the observed emphasis on grammar instruction. We thus wanted to examine the grammatical errors made by Maltese learners by analysing their written texts. Therefore 120 participant learners (20 learners from six Maltese secondary schools) were asked to write a short essay totaling between 100 and 150 words, at home. The number of words was kept this low in order not to discourage learners from participating. They were invited to choose one out of four titles, ranging from narrative to descriptive or circumstantial, in keeping with the SEC syllabus corresponding to the writing task. All learners were bilingual (Maltese / English) prior to commencing their learning of French. Two groups of learners came from boys' church schools, two from girls' church schools and two from state schools. The targeted level was A2. The written productions were obtained from Year 10 and Year 11 students. In order to retain as much homogeneity as possible in the level of language mastery, the Year 11 written work was collected between October and November, while the Year 10 work was collected between May and June. It would have been difficult to obtain the required number of works from one year group only, given the naturally voluntary basis for participation.

We notice that students' writings are often riddled with errors pertaining to these seven

grammatical phenomena: noun determiners, nouns, adjectives, verbs, conjunctions, pronouns and prepositions. We retained these categories for our analysis. Data collection was inspired by four related research questions: 1) which grammatical points are found most difficult by Maltese learners after four years of learning French, and at which frequency they appear in their work; 2) whether possible sources of grammatical errors can be identified; 3) which grammatical features are perceived by the learners themselves as being the most difficult to grasp and which problems they identify in writing French; 4) which are the most prominent challenges faced by teachers in relation with the teaching of the written competence. Of these axes of research, the present study focuses solely on questions 1 and 2, bearing upon the concrete corpus data. Questions 3 and 4, which deal with perceptions and personal experiences, are dealt with in another study (Sammut & Bezzina, forthcoming).

The investigation objectives related to research questions 1 and 2 warrant an analysis of descriptive data, which can illustrate grammatical errors present in the written texts.

Error analysis

Each error pertaining to one of the seven grammatical categories retained for this study was manually identified in the 120 learners' written texts, and totals and percentages were calculated. Each error was also placed in a sub-category representing a sub-type of error within the larger grammatical category. It was important to understand each occurrence of error in its context within the written text; thus errors were documented and described in the whole sentence where they appeared. Table 1 shows the different types of errors identified as sub-categories within the grammatical category of verbs (for the other grammatical categories see Sammut, 2017).

Grammatical category	Error type
Verbs	<ol style="list-style-type: none"> 1. Wrong structure or conjugation 2. Absence 3. Wrong choice of verb mood 4. Wrong choice of verb tense

Table 1: The different sub-types of errors within the grammatical category of verbs

4.0 Frequency of errors pertaining to the grammatical categories and sub-types

A total of 1,243 errors classified within the seven categories retained for this study were identified in the learners' texts. Table 2 indicates the extent to which learners find each category problematic in numerical terms. Errors in verbs account for 32.1% of all errors and verbs are thus the most challenging grammatical category for the learners, followed by determiners (28.16%). Errors in prepositions and adjectives are also non-negligible (14.88% and 14.16% respectively). At the other end of the scale, there seems to be better mastery of the use of conjunctions (2.49% of errors) and nouns (2.33%).

Results indicate that within the category of Verbs, the most problematic sub-types of features are verb structure or conjugation (54.14%), followed by the choice of verb mood (24.31%) and of verb tense (12.53%). Absence of necessary verbs accounts for 9.02% of all verb-related errors.

Grammatical category	Frequency of errors (in numbers)	Frequency of errors (in percentages)
Verbs	399	32.1%
Noun determiners	350	28.16%
Prepositions	185	14.88%
Adjectives	176	14.16%
Pronouns	73	5.87%
Conjunctions	31	2.49%
Nouns	29	2.33%
TOTAL	1,243	100%

Table 2: Frequency of errors made in each grammatical category

Descriptive analysis of learners' errors

The qualitative description of errors actually occurring in the corpus will likewise be limited here to the verb category (for a description of all grammatical points retained for the wider study of learners' errors see Sammut, 2017), with its sub-types of wrong conjugation, wrong choice of verb mood or verb tense and verb absence. Within these cases, only a small selection of errors will be shown (for more examples see Sammut 2017), with sentences taken faithfully from the corpus. Therefore, they will also up to a certain point allow a glimpse of other types of difficulties in sentence constituents other than the verb, which however will not be commented on here. A strictly objective and linguistic perspective is adopted in this description.

Wrong structure or conjugation

This sub-category accounts for more than half of all errors regarding verbs. Many students encounter difficulty to conjugate verbs in the present indicative. This may even happen in the most basic, common irregular verbs:

- (1) *Quand je petite, j'aime Paris parce qu'il **sont** une belle ville.
- (2) *Je **sont** très content.
- (3) *Nous **allez** danser et parler avec nos amis.
- (4) *A Gozo vous **peut** allez au la plage.
- (5) *On **allons** visiter 'Azure Window'.

Example (5) shows that the learner hasn't grasped the point that although the third person singular pronoun 'on' may be semantically equivalent to the first person plural 'nous', the verb has to be conjugated to agree with the third person. Errors frequently occur even in the simple, regular verbs of the first group (-er verbs; exs. 6-8). The less common verbs of the -ir and -re groups are on the contrary very rarely used (9).

- (6) *Je **regards** ton letter pour ton vacance à Malte.
- (7) *Je **organisez** un week-end à Gozo au mois de juin.
- (8) *Et ils **aime** beaucoup le été aussi.
- (9) *J'espère tu **répondez!**

Both regular and irregular verbs, in both the simple (10-11) and near future (12-13) tenses seem to be problematic. The near future 'aller (conjugated in the present) + infinitive verb' was at times replaced by a literal translation from English 'to be (go)ing to' (12):

- (10) *Quand vous **êtes** ici, tu **fera** de la plongée, c'est mon passionnée et tu **fera** du shopping avec ton famille à la Sliema.
- (11) *Quand nous **arriver** à Xaghra, nous **allerons** à la maison que à une pictine et c'est devant la plague de Ramla.
- (12) *Nous **sommes aller** a Dwejra pour inspecter 'Azure Window'.
- (13) *Le weekend prochain, nous **avons organizer** un week-end à Gozo au mois de juin.

Conjugation errors become even more frequent when the noun phrase of the sentence is a lexically full subject, not a pronoun. This may be because conjugations are practised with pronouns. A pattern emerges because third person singular forms (14-16) are privileged. Inversely, third person plural forms are also at times used when the subject calls for a third person singular form (17-18).

- (14) *Les touriste **aime** beaucoup les paysage maltais!
- (15) *Les plages de Malte **est** très magnifique.
- (16) *Mon parents et moi **visite** plus restaurants à la matin à l'après-midi et le soir.
- (17) *... il y a beaucoup de plages où toute la famille **peuvent** être contente et relaxée.
- (18) *Paris **ont** un 'heaven' pour le shopping...

The use of the passé composé tense is marked by numerous errors stemming mainly from (i) wrong choices of auxiliary verbs (19-20), (ii) absence of auxiliary verbs (21-22), (iii) wrong forms of the past participle (23-24) and (iv) errors related to agreements of past participles (25-26).

- (19) *Quand nous **avons arrivé** en France, nous sommes allés à l'hôtel.
- (20) *Nous **sommes visités** l'Arc de Triomphe, la Tour Eiffel et le Louvre.
- (21) *Nous **allés** toutes les musées, le Louvre et l'Orsay.
- (22) *Je **dormi** l'avion.
- (23) *J'**ai vois** beaucoup de monuments, musées et j'ai mangé dans beaucoup de restaurants.
- (24) *Nous **avons prendrons** le bout pour Gozo.
- (25) *Quand mes amies **sont partis**, j'ai nettoyé tout la table et je me suis couchée.
- (26) *... nous **sommes resté** dans une maison a la campagne.

Wrong choice of verb mood

Of the 97 errors related to the choice of verb mood, most consisted of the use of an infinitive when a conjugated indicative was necessary (27-28), or vice-versa (29-30).

- (27) *Je **passer** une semaine à Paris.
- (28) *J'espère que cela était bon aide et **répondre** pour plus conceils.
- (29) *Il y a beaucoup de plage a Malte que vous pouvez **visité**.
- (30) *Vous devenez **apportions** vêtements clairs.

Another category of errors concerned the inappropriate use of an attempted past participle instead of verbs conjugated in the indicative:

- (31) *Si tu **préfère** j'irai dans le vacance, c'est un bon idée aussi!
- (32) *Nous partons à Gozo à sept heures de matin et **reterné** à Malte dimance à onze heures de soir.

Whereas the infinitive form should normally follow prepositions in French, the corpus contains several instances where past participle (33), present indicative (34), and attempted simple future (35) forms appear in this context:

- (33) *J'ai beaucoup de Plaisir parce qui était intéressant à **vu**.
- (34) *Moi je suis... fatigué parce que je vient de **retourne** à Malte après une semaine à Paris.
- (35) *Nous payerons Eur30 par personne pour utiliserons la ville et pour **venerons** la nourriture et les boissions.

Although the present subjunctive lies within the local secondary French syllabus, at this level learners cannot be expected to apply it in their writing. The only instance when it was needed was when a learner ventured to use the conjunction *bien que* (although); the subjunctive was substituted here by the indicative:

- (36) *Bien que Malte **est** une petite île, sa population est grande.

Wrong choice of verb tense

Within the category of verb-related errors, 12.53% were wrong choices of tense. This happened mostly when learners chose to answer the two titles where the passé composé was needed as the main narrative tense, but often substituted the passé composé by the present indicative:

- (37) *Le premiere journe nous **visitons** le Tour Effiel.
- (38) *Je **arrive** hier.
- (39) *Je **retourne** à Malte jeudi dernier.

However, the passé composé was also replaced by the imperfect tense (40), the near future (41), and the present conditional (42).

- (40) *Ils me **donnaient** des cadeaux et nous avons commencé notre fête.
- (41) *En samedi nous **allons depenser** un tout jour shopping.
- (42) *J'**achèterais** beaucoup de vêtements.

The imperfect tense, which needs to complement the passé composé (the main past tense) by being used for descriptions, repeated and longer-lasting actions in the past, was also substituted by the present indicative. In example 43, in spite of the simple relation of coordination between the two clauses, the present was used in the second clause even if tense choice was appropriate in the first. In example 44, the imperfect is substituted by the present indicative and later by a past participle which is generally pronounced identically to the imperfect form by Maltese learners as foreign speakers of French.

- (43) *Le climate en France était très frois et il y **a** de neige.
- (44) *Je ne **sais** pas je suis aller parce que le voyage **été** une surprise.

Some learners attempt structures with multiple verb sequences which prove too complex

for them. In example 45, the correct sequence would have been *dire* conjugated in the *passé composé* followed by the conjunction *que*, the third person plural pronoun and the conditional perfect. It needs to be appreciated that the learner took the risk to attempt to express him/herself and that s/he managed to more or less communicate his/her idea. This type of error should not be sanctioned because it goes beyond any expectations of what the features of A2 learners' interlanguage should be like at their learning stage. The same applies for the third verb cluster in example 46: the learner here needed an imperfect followed by an infinitive, which may be expected to be problematic at A2/A2+ level. The complexity of the sentence undertaken by the learner is however remarkable.

- (45) *Ils me **disent auront aller** pour en picnic. (for *Ils m'ont dit qu'ils seraient allés à un pique-nique.*)
 (46) *Je **vais me réveiller** à 7 heures parce que je **serai** trop excité et je **vais devoir** aller à l'hôtel pour se préparer à mon parti. (for *Je me suis réveillé à 7 heures parce que j'étais trop excité et que je devais aller à l'hôtel pour me préparer pour ma fête.*)

Verb absence

Omitting an obligatory verb accounts for only 9% of errors concerning verbs but quite regular patterns emerge in students' difficulties of omission. Simple, single-verb sentences are also effected. Copular verbs are the ones which are most often missing, especially the verb *être*, in both singular and plural forms:

- (47) *Le histoire très intéressante.
 (48) *Les magasins belles.

Omissions become more frequent in complex sentences. This happens in cases of both coordination and subordination. In the second coordinated clauses of examples 49-51, it is semantically full verbs like *vivre*, *voir* and *aller* that are left out, possibly because of a (momentary?) lack of availability of the verbs in the learners' lexical repertoire:

- (49) *Il y a mon première experience en France et je une experience très belle.
 (50) *Je suis allée musées et je des monuments intéressantes.
 (51) *Chaque jour nous mangeons dans une restaurants différents et tout bien.

In the case of clause embedding, the verb is at times absent from the matrix (52) and at other times from the subordinate clause (53, 54). In example 52, the verb appears to be replaced by the preposition *en* within a phrase where the meaning is extremely hard to decipher. In example 53, it seems that the student may be attempting to write the expression containing a verb *c'est*, but ends up substituting it with the demonstrative adjective *ce*. Example 54 is just one illustration of several subordinate clauses in the corpus, opened by the conjunction *parce que* and left without a verb:

- (52) *Je en un bot petit déjeuner qui était crêpes.
 (53) *Elle est un payée petit et la population ce de 500,000 que ce une petite nombre.
 (54) *France a un histoire riche et varié parce que des monuments très special.

It is interesting to note that verbal collocations such as *faire du shopping*, *envoyer un message à quelqu'un* are dissected in such a way that the verb is discarded and the noun is elected to carry out its grammatical role:

- (55) *Nous sommes allés shopping du matin et achetée beaucoup de vêtements.
(56) *Si vous pouvez venir, me message.

Considering that the above are but a small selection of the mistakes pertaining to the verb category taken independently of the other grammatical categories, it is generally observed that the learners' written sentences are riddled with errors that distort the flow of the text and at times prevent its understanding. To address the situation, it becomes important to attempt to interpret these results, especially in light of their potential causes and linguistic sources.

Significance of the study's results

An evaluation is attempted here of the observations emanating from the research questions' investigation. It aims to establish some degree of comparison between these results obtained in the local scene and conclusions of similar investigations conducted in other formal FFL learning contexts.

Frequency of errors in the seven main grammatical categories

The above basic statistical calculations and descriptive analysis of errors indicate two realities: firstly, the high number of grammatical difficulties in Maltese FFL learners' writing, and secondly, the existence in the educational system of factors which must be contributing to learners' lack of a better mastery of the written competence. The reasons for this second cause of concern will mainly be tackled in a different study targeting learners' and teachers' views related to the observed situation (Sammut & Bezzina, forthcoming). The focus is here on the frequency of errors attested in learners' written production. Thus, the first hypothesis expecting difficulties in applying grammatical rules in communicative situations spanning beyond the small-scale grammar exercises is not only corroborated, but surpassed, as it is observed that many errors produced after four years of learning of the FL are related to the most fundamental grammatical concepts, covered in the first two years of exposure to the language. The extent of the problem is surprising, considering that it is observed by the research and confirmed by the teachers themselves (Sammut, 2017) that grammar tends to locally be the main focus of FFL teaching.

This confirms Macaro and Masterman, (2006) in that electing grammar as a privileged component of language teaching does not necessarily imply a better mastery of the writing skill.

Another conclusion in relation to the first research question is the classification of the seven main categories of grammatical difficulties in order of frequency. It was expected that verbs would be the most problematic category (here accounting for 32.1% of all errors), confirming the high frequency of verb-related errors in FFL learning in studies conducted in Turkey (Delen Karaağaç, 2012), Sudan (Mohamed and Mohamed, 2013) and Uganda (Namukwaya, 2014). However, the extent of learners' difficulty in handling determiners (28.16%) was a surprising observation. In fact, Cardell (2013) finds that the majority of Swedish FFL learners show mastery of determiners and use number and gender forms appropriately. Nonetheless, Morana (2006), Darne (2011) and Gonac'h and Mortament (2011), respectively working on the Maltese, Polish and Afghan contexts, do remark that their learners are often in difficulty when confronted with the need to choose the correct noun determiner.

It was expected that difficulties in using prepositions (14.88%) and adjectives (14.16%) would be less frequent than in verbs, although perhaps not that errors in each of these categories would be less than half as common as for verbs. The low score obtained for problems with pronouns (5.87%) is probably attributable to a rather rare use of object pronouns than to actual mastery of

the grammatical category. In our practice we actually observe that confusion of direct and indirect object pronouns, as well as incorrect placing of the object pronoun in the case of compound verb tenses, tend to persist at much higher levels of learning. Whilst it was somewhat expected that difficulties with conjunctions and nouns would be lower than for the other categories, the very low degrees of difficulty obtained in these two cases (2.49% and 2.33% respectively) is interpreted as a positive result.

Possible sources of error

In response to our second research focus, which questioned whether errors could be traced back to possible sources, it can be said that while most errors seem to be attributable to the learner's interlanguage stage of TL learning, some of them appear to be the result of inappropriate extrapolation to areas of the L3 (French) of grammatical features belonging either to the L1 or L2 (Maltese or English) or to the L3 itself. For reasons of brevity, examples will be few and once again concern verbs only (see Sammut, 2017 for more examples concerning verbs and other grammatical categories).

Among the interlingual errors, one can detect the influence of Maltese for instance in the absence of obligatory verbs, owing to the fact that nominal sentences are very common in Maltese, where the copular verb is optional. Thus structures natural to Maltese like "*l-istorja nteressanti*" (literally: the story interesting) and "*il-ħwienet sbieħ*" (lit. the shops beautiful) seem to be the reason why learners wrote **l'histoire intéressante* and **les magasins belles*. The one-word Maltese perfect tense, and / or the English past simple, may be at the origin of the error of omission of the auxiliary of the compound passé composé tense, leading to reduced structures such as **nous mange*, **je dormi*, **mes parents bu* and **nous rencontré*. Inversely, habitual use of compound tenses in English, such as the present continuous and the past continuous, seems to explain why some simple tenses in French, like the present indicative and the imperfect, were attributed a superfluous auxiliary, as in **Nous sont habiter* for *Nous habitons* (English: We are living), **Je suis organiser* for *J'organise* (Eng. I am organising), and **nous étions danser* for *nous dansions* (Eng. We were dancing).

Intralingual errors also appear in the corpus and some seem to be attributable to overgeneralisation of grammatical rules of the TL to areas where they are not applicable, as the learner strives to construct hypotheses on the FL on the basis of his limited experience of this language. Difficulty to apply rules already covered in the teaching-learning process of the language is evident. As regards verbs, overgeneralisation of the two rules listed below is present in the corpus:

- i. In the passé composé tense, the auxiliary needs to be followed by a past participle → subject + auxiliary (verbs être or avoir) + past participle
- ii. A semi-auxiliary (modal verb, etc.) needs to be followed by an infinitive → subject + semi-auxiliary + infinitive verb

Learners seem to mix the two rules. At times they place a past participle or a verb conjugated in the present indicative after a semi-auxiliary, as in **vous pouvez visité*, for *vous pouvez visiter*, **j'espère écouté* for *j'espère écouter*, **vous devez apportons* for *vous devez apporter* and **on peut marche* for *on peut marcher*. At other times an auxiliary is followed by an infinitive verb, as in **nous avons organiser* for *nous avons organisé* and **nous sommes rester* for *nous sommes restés*.

There is also extrapolation of the agreement of the past participle in the passé composé tense,

necessary in verbs which take être as an auxiliary, but sometimes extended in the corpus to verbs conjugated with the auxiliary avoir. Thus one finds **nous avons regardés* for *nous avons regardé*. At other times verbs which need to be conjugated with the auxiliary avoir are on the contrary conjugated with être and are thus also given an unnecessary ending of gender and number, as in **nous sommes visités* for *nous avons visité* and **le temps sont étés belles* for what in a literal translation would give **le temps a été beau* (the proper expression being however *il faisait beau*).

It can thus be concluded that Maltese students of FFL in their final two years of secondary education encounter grammatical difficulties emanating from the influence of Maltese and English. This influence could occur unconsciously or even consciously, as word for word translation from previously known languages may also be a factor which induces learners into negative transfer. The partial mastery of the TL is another contributing factor.

Final remarks

The present study is limited by its focus on grammatical difficulties pertaining to seven particular grammatical categories. A more thorough investigation on learners' ability in written production would also need to take into account other types of error, as well as spelling, punctuation, sentence construction (see Sammut, 2012 for complex sentence construction by Maltese learners of FFL), etc. Learners were constrained by the four assigned essay titles; a wider variety of writings would allow more objective results. Since learners were asked to carry out the essay writing at home, they may have resorted to different sources of help like online translation tools, which will have impinged on their performance.

It appears that the FL teaching system in Malta, allowing for three or four lessons weekly in the language, a number of which are however lost due to various school activities, is not giving highly satisfactory results. It may be that the learners' degree of motivation for FL learning is not ideal. FFL textbooks in most Maltese educational sectors are outdated (Bezzina, 2016). What is clear at the end of this study is however that the often observed and teacher confirmed emphasis on teaching grammar is not leading to the desired results when learners need to apply this extensive grammatical content in longer, written communicative tasks. It would be interesting to investigate the level of grammatical accuracy when learners need to communicate orally. To date, no such study has been carried out, although recordings of learner talk, for instance of role play in studies which have focused on the spoken interaction abilities of Maltese learners of FFL (Micallef, 2003; Bondin, 2014; Zammit, 2018), seem to suggest that extensive grammatical difficulty is not limited to written production.

Teachers need to be aware of the nature of learners' errors in written production. According to Ferris (2003), correcting mistakes remains a priority for most teachers who see, in correction, the most effective strategy to improve their learners' writing. Through correction, teachers guide, motivate and encourage them in this skill (Brannon & Knoblauch, 1982). It must be ensured that the apparently dominant mode of work in the FL teaching programme, based on grammar exercises, is sufficiently complemented by tasks and activities in which learners practise their grammatical knowledge in longer stretches of writing. Writing workshops may be periodically set up in the FL lesson. Learners' willingness to expose themselves to the FL beyond the classroom would also be beneficial.

Teachers need in fact to work on learners' attitudes to FL learning and on their motivation, which have such a determining power on success or failure. This could be achieved by shifting the priority given to summative evaluation, which may demotivate learners since it involves assigning

marks, which frequently tend not to be high. It is believed that the educational system would benefit from giving more weight to formative assessment, which would consider errors as a tool and an opportunity for learning, and which would place more interest on the development of learners' FL competence rather than on the social classification of learners through placing them within marking bands. This objective can only be attained if teachers dispose of sufficient time to adequately correct and analyse learners' FL production in order to give them constructive feedback. In the current system where the FFL syllabus in Malta is significantly loaded with grammatical content that has to be covered, on which teachers hardly have any control or say, teachers claim that they feel stressed (Sammut, 2017) and as a result that they cannot really transmit a positive attitude towards FFL learning. The situation may be partly improved, therefore, if teachers are more centrally involved in decision taking processes concerning the teaching programme and evaluation methods.

Teachers' feedback needs to be sufficiently explanatory and to help learners avoid repetition of errors. Class correction and discussion of common difficulties can create awareness regarding correct forms, as well as a wise use of self and peer evaluation which lead to in-depth reflection. Since it would be logistically difficult to allot more lessons to FL teaching, a revision of the syllabus would be more practical, with a re-sizing of the grammatical content which would allow teachers to quit the rather traditional way of language teaching, which is being observed in the research (Bezzina, 2017; Sammut, 2017; Bezzina & Gauci, 2018), and give scope for more practice of production skills. The final Secondary Education Certificate (SEC) examination, with, among others, its traditional grammar, metalinguistic, culture and dictation components, is a determining factor suspected to exert a washback effect on the teaching practices currently observed. The inclusion of such components in the final summative evaluation does not seem to be improving learners' performance. It is hoped that improvement in learners' performance will be noted with the current plans and actions being undertaken to reform local language examinations in such a way as to finally be more in line with the recommendations of the CEFR (2001, 2017), based upon equal weighting of speaking, writing, listening and reading skills, as well as integrating formative assessment as a way of enhancing learning.

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Section IV
**IMPACTING ON PRACTICE... EXPLORING CURRICULA
AND PEDAGOGICAL ISSUES IN EDUCATIONAL CONTEXTS**

Multilingualism and the inclusion of migrant learners in Maltese schools

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This version is updated and elaborated further. The original paper was first translated into English in collaboration with Dr Ivan Grech (American University of Malta)

Abstract

In Malta, like in several other Southern European countries, the migratory flows of recent years has led to a situation which has rendered schools much more multi-ethnic and multilingual than they ever were. The presence of migrant learners requires language policies as well as inclusive didactic measures that could lead to their inclusion while valuing their personal experiences. This would be of benefit for all learners, including those born and brought up in Malta. In this contribution Maltese schools are viewed in the light of some linguistic and social considerations that result from other contexts in the Mediterranean. We observe that the growing number of migrant learners has led to considerable efforts from the local educational authorities in order to develop policies related to their integration and to the appreciation of their languages. However, more practical measures are required in our schools, both to raise awareness of the benefits that may result through the inclusion of migrant learners and to help educators address their needs professionally.

Keywords: Multilingualism, Migrant learners, Linguistic policies, Inclusion, Language education

Introduction

In the last few decades, the significant increase in migratory fluxes towards southern European countries has resulted in relevant social changes, which are the more evident if one considers that, up to the 1960s, many of these states had not experienced similar situations. On the contrary, these were countries from which people emigrated.

Due to this sudden inversion in the direction of migration and, above all, in view of the cultural, linguistic and religious 'super-diversity' (Vertovec, 2007), which are distinctive features of several new immigrant communities, the public debate on migrants in the southern European countries has been conditioned by phobias which accentuate problems, at the expense of calm and reasoned reflection on possible solutions (EUMC, 2005). Even at institutional level, the discourse on the contribution to cultural diversity by migratory fluxes often is conditioned by stereotypes and prejudice.

Therefore, it is particularly interesting to analyse the dynamics within educational institutions,

where the needs of schools, which are becoming ever more linguistically and culturally heterogeneous, require urgent, innovative, and efficient pedagogic measures.

Students face plurilingualism and linguistic diversity resulting from immigration on a daily basis, and it is precisely at school that they are to learn to appreciate the value and potential of diversity. However, in the absence of institutional discourse which legitimises and favours the progressive phasing out of the monolingualistic *habitus* (Gogolin, 1994) and of the traditional homoglottic ideology (Lüdi, 2011) nurtured in many educational systems, individual and collective linguistic resources which are different from those included in the traditional repertoire of the national community, are still largely untapped by scholastic communities. Often, these are considered as obstacles to be overcome, while only European foreign languages taught at school are given acknowledgement and, as a result of this, gain prestige. In Malta schools struggle to teach foreign languages to Maltese and English speakers and, even though studying a third language is compulsory, results often leave much to be desired to the extent that major curriculum revisions are deemed necessary (Pace, 2015). Bilingual programmes which form part of some school curricula are largely conducive to the teaching of English, while other languages are practically excluded, despite the fact that they may be widely spoken by the students who have settled in southern European countries (European Commission/EACEA/Eurydice, 2017). With reference to schools in the U.S, Cummins (2005) refers that foreign students should be encouraged to use and maintain their heritage language/s, and avoid the risk of losing it/them, thereby becoming monolingual English speakers. The necessary precautions and measures should also be taken in Europe, where there is an increasing number of students in schools whose mother tongue/s is allochthonous, i.e. a language which is not used regularly in the country which receives them. This is not only the result of new arrivals, but is also due to the presence of foreign children born in receiving countries.

In order to collect empirical data, between 2009 and 2011 seven research entities from six Euro-Mediterranean countries (Italy, Malta, Spain, Portugal, Slovenia, and Romania) worked on the MERIDIUM project (Caruana, Copesescu and Scaglione, 2013), the ultimate aim of which was to study multilingualism in Primary schools, and to analyse critically how different educational systems react to this new reality. The project stemmed from the realisation that, despite the fact that in some of these countries educational policies include intercultural dialogue among the main schooling objectives, and envisage specific measures for the integration of pupils with different L1s from the language/s used as a medium for instruction, such documents generally refer very vaguely to the need to promote the languages and cultures of origin of migrants and, by and large, ignore the indications of the Council of Europe for the development of policies and curricula for plurilingual and intercultural education (Council of Europe, 2007).

While a summarised analysis of the single national situations was published in the conclusion of this project, in this paper we update – a number of years after the formal end of the MERIDIUM project – some considerations related specifically to Malta. The rapid changes in the immigration fluxes, together with the distinctive nature of the use of both Maltese and English in schools¹ make Malta a particularly interesting case study.

¹ Although Maltese is the L1 of the vast majority of Malta's population, several textbooks in English are used in Primary schools, and the need to understand and to express oneself in English increases as pupils progress from one scholastic year to the next. In Secondary schools, teacher-student interaction is carried out through code-switching between Maltese and English, with specific functions. For example, English is often used to explain technical aspects of certain subjects, such as Mathematics and the Sciences, while Maltese is also used in these lessons for informal exchanges or to impart instructions. The frequency of use of either of the two languages varies according to the individual teacher

Basing ourselves on the comparison between the different tendencies that emerged from the data collected for MERIDIUM, apart from recent demographic indications (§ 2), we will analyse the latest developments of the regulatory framework concerning the integration process of the pupils of migrant origin (§ 3). The conclusion of the study (§ 4) will be dedicated to problems which still hinder – on an ideological and organisational level – the exploitation of the linguistic resources that result from immigration. The analysis will be supported by results derived from didactic experiences, including materials produced within the MERIDIUM project.

The linguistic super-diversity in Maltese schools

In 2004, according to the data of the National Statistics Office Malta (www.nso.gov.mt), the Maltese population numbered 402,668, of which 11,999 (3%) were foreign residents. Data from the same office reveals that ten years later, in 2014, this number more than doubled, with 27,476 foreigners residing in Malta. This corresponds to 6.4 % of the overall population, which in the same period reached 429,344. Even more recent figures indicate an even steeper rise in the population of Malta, which in 2018 amounted to 475,700², including 43,000 foreign workers, many of whom originating from Italy, Britain, Bulgaria, the Philippines and Serbia³. This considerable increase, as well as indications that the trend has not plateaued and is still on the rise, is also reflected in local schools where recent figures show a substantial presence of non-native students, in Malta normally referred to as ‘migrant learners’. The figure on page 333 shows some statistical data, retrieved through figures provided by the Migrant Learners’ Unit, which reveal how the presence of these learners increased significantly in recent years.

Further to the above, in response to a parliamentary question, the current Minister for Education and Employment referred in January 2018 there are 5,744 foreign students in local schools, with the majority of them – 3,835 – in state schools. The Church school sector has relatively few – 132 – with the remaining 1,777 in independent (fee-paying) schools. Of these 3,389 are in primary school and 2,355 in secondary school⁴.

While data on the schooling population reveals that there are several English-speaking foreign students, as well as learners from bordering EU countries (especially Italy), it has to be underlined that even in these cases, language-related issues may constitute an obstacle for full integration within Maltese classrooms. The same can be said for migrants from Eastern Europe – especially from Serbia, Macedonia and Ukraine – the presence of whom has increased especially in the past two years. Migrant learners, in fact, come face to face with an intricate linguistic situation locally because, as explained earlier, both Maltese and English are used in different domains and choice of one language over another depends heavily on context and interlocutors. These are clear-cut for local learners, but not so for whoever has not lived in Malta for a long period of time.

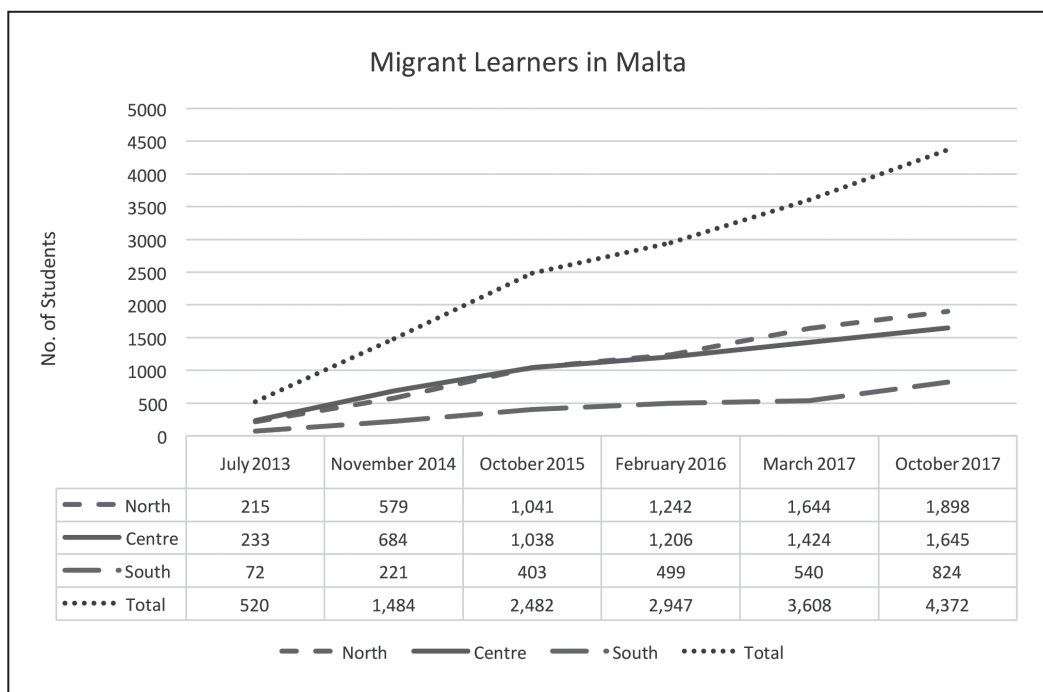
The situation is even more complex in the case of asylum seekers and of refugees who have often been the subject of debates which, at times, lack both insight and objectivity. Inevitably, opinions

and the school attended. Most written work and exams are carried out in English. At higher levels, including University, almost all teaching and assessment is carried out in English. Since there are significant differences in the use of English and Maltese in schools, and since the former language gains importance as one moves through the educational system, the Maltese educational context is characterised by scholastic diglossia (Caruana, 2011).

² Times of Malta, June 10th, 2018: <https://www.timesofmalta.com/articles/view/20180710/local/increase-in-malta-population-more-than-15-times-that-of-the-eu.684039>

³ Times of Malta, June 27th, 2018: <https://www.timesofmalta.com/articles/view/20180627/local/43000-foreign-workers-in-malta-and-more-are-expected.682918>

⁴ <https://www.timesofmalta.com/articles/view/20180124/local/church-schools-only-host-132-of-5700-foreign-students.668795>



on these issues are divergent, but today there is undoubtedly more widespread awareness on the theme of the reception of migrants and on the need for Malta to be better disposed towards multi-ethnic societies. Linguistic integration is often cited as being of primary importance for inclusion and integration to occur. These migrants, in fact, originating mostly from Libya, Syria, Nigeria, Ethiopia, Eritrea, and Somalia, do not speak Maltese and their proficiency in English is generally very limited. Often the lack of formal learning opportunities constrains them to acquire, as best they can and often in a completely spontaneous way, the basic terms and expressions of one or both languages (Caruana, 2008). At times the difficulties encountered to learn the two context languages of Malta hinder both their employment and social integration, and increase the difficulties that children encounter throughout their scholastic life.

This situation is in sharp contrast to the situation of the early Noughties, when local schools were practically monoethnic. Furthermore, Maltese kindergartens – frequented by children aged 3-5 years – constantly register a considerable increase in the presence of non-Maltese pupils. This indicates that, in the next few years, Maltese Primary schools will have an ever-increasing multi-ethnic and multilingual imprint and the complexity of recent migration trends, characterised by the afore-mentioned super-diversity (Vertovec, 2007), necessitates a new paradigm when dealing with schools and classrooms.

As indicated by the MERIDIUM survey of 2010, in Malta – as in the other countries which participated in the project – school authorities take note of the citizenship of the students at schools, but do not collect systematic data about their native language, or about the languages spoken by their families. The MERIDIUM survey had shown that from a sample of 164 pupils who attended three Maltese Primary schools when the project was carried out, 14.6% of the respondents spoke neither Maltese nor English in their households. This project was carried out specifically in schools with a high amount of migrant learners. However, this percentage

decreased to virtually zero when the same pupils were asked if they used their own L1 at school, when speaking to teachers and schoolmates: in fact, only one pupil said that s/he did so. This data mirrored a situation where, due to the lack of linguistic and cultural mediators, the only means of linguistic integration adopted with foreign children was prioritising the use and teaching of English. Today, this method – which still commands a fundamental role – is in some cases accompanied by the teaching of Maltese, especially in the case of children whose L1 is Arabic⁵.

The choice of giving English absolute priority is fully comprehensible, if it is taken into consideration that, in Malta, this language is an important medium used, in alternation with Maltese, at school. However, the choice of prioritizing English harbours at least two relevant inconveniences. First of all, knowledge of English is not enough to fill all the gaps, since many interactions, especially informal ones between pupils, are carried out in Maltese. We reiterate, in this respect, that code-switching between Maltese and English is based on complex dynamics and may be very difficult to grasp for migrant learners.

Secondly, this strategy suffocates the preservation and promotion of the languages of origin of migrant learners, exposing the education system to the risk of encountering, in the very near future, cases of delayed achievement, dispersion, and educational failure, which today are already worrying phenomena in many other countries in the South of Europe with a longer, and more established, history of immigration (for example Italy, Scaglione, 2016) when compared to Malta.

The MERIDIUM survey carried out in Malta, as in the other countries participating in the project, revealed how several teachers complain about the fact that they lack the necessary skills to adapt didactic activities to the needs of non-native pupils. These issues, and other similar ones, have started to be addressed more systematically in recent years, as we explain in the following section. However, further research and action aimed at the integration of the migrant learners are obviously necessary: these can stem from the insights garnered through the MERIDIUM project itself.

The evolution of the regulatory framework and initiatives being taken

The situation of the Maltese educational system in relation to the reception of pupils of a different citizenship has been analysed, and harshly criticised in two reports published in 2011 and 2015, by the Migration Policy Group, a European independent non-profit organisation which, for the past few years, has been drafting a five-yearly Migrant Integration Policy Index (MIPEX) for all the countries of the EU and for other extra-European states. Among the MIPEX indicators, the one which deals with education takes into consideration multiple aspects, such as the possibility of access to different levels of education, the answer to the specific needs of migrant learners (support programmes for children and their families, teacher traineeships, standard teaching of L2, etc.), socio-educational integration measures (including the promotion of the languages of origin of pupils whose language/s is/are not used in local contexts), and intercultural education for all students. These parameters were at the basis of the 2010 survey, according to which the integration level of the pupils of foreign origin in the Maltese education system is deemed unequivocally inferior to the EU average (16 points over 100, when compared to the EU average of 39/100)⁶.

⁵ At present migrant learners whose linguistic skills in the two autochthonous languages - Maltese and English - are very limited, attend induction classes until they manage to reach a level which allows them to follow mainstream lessons and to interact with the teachers and their classmates.

⁶ Cf. 'Malta' at: <http://old.mipex.eu/countries>

The most critical aspect regards the socio-educational integration measures (0/00), due to the total absence, in 2010, of:

- optional opportunities to teach the languages and cultures of migrants;
- surveillance mechanisms relative to possible phenomenon of scholastic segregation;
- measures favouring social integration, aimed at supporting parent participation in the education of their children.

The evaluation of the answer to the specific needs of migrant pupils (10/100) was also considered rather poor. Apprenticeship courses for teachers seemed to constitute the only moderately favourable factor in this evaluation. On the other hand, it was noted that there are no intensive programmes to introduce the new arrivals to the lifestyle of the country in question and to its education system. Similarly, at the time of the 2010 MIPEX survey there were no measures for continuous educational support for the learning of the languages used for schooling; no measures for the systematic surveillance of the pupils of immigrant origin; and no specific policies regarding the educational situation of the migrants. The results regarding access to education (21/100) and, above all, to intercultural education for all (33/100, when compared to the EU average of 41/100) were relatively better.

In the subsequent survey – which took place in 2014 and was published the following year – the overall figure is slightly higher (19/100, when compared to the EU average of 38/100)⁷; increases were registered in the answers provided to specific needs (20/100) and within the sphere of intercultural education (40/100), which is practically equal to the EU average score (43/100). However, the score regarding measures for socio-educational integration remained unchanged.

Irrespective of the schematisation of the MIPEX evaluation, one has to point out that, from 2010, the integration policies in favour of migrant pupils and their families have developed at a fast pace in Malta, as we now outline in synthesis.

In May 2011, the then Ministry of Education launched a new National Curriculum Framework (NCF), which has been subjected to a wide public consultation⁸ and the results of which led to 'A National Curriculum Framework for All' (MEDE, 2012). In this document, the recommendations of the European Parliament and Council regarding the key competences for lifelong learning⁹ are applied to the Maltese educational system, highlighting in particular the respect for diversity and the importance of developing a model in which pupils are placed at the centre of the learning process. It must be pointed out that this curriculum promotes a more open approach towards the integration of those who choose a secular education, with the option to frequent Ethics Education classes for students who do not follow lessons of Religion. As far as language learning is concerned, the NCF stresses the importance of the teaching of Maltese and, above all, English. The formal teaching of foreign languages, as is traditional in Malta, starts at secondary level (at the age of eleven), when the study of a third language is compulsory. However, there are no explicit references in the document to the linguistic needs of migrant learners, as this is limited to the following, thereby confirming the point made at the beginning of this paper, in relation to

⁷ Cf. <http://www.mipex.eu/malta>

⁸ <http://curriculum.gov.mt/en/resources/the-ncf/pages/default.aspx#Consultation>

⁹ Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning (2006/962/EC), <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32006H0962>

how official documentation takes a very pragmatic stance on the matter without delving into the complex issues related to language identity:

...Malta has become a multi-cultural society and that all schools should be in a position to provide children and their parents with language support in Maltese and English so that they achieve a basic working knowledge of these languages at the earliest possible in order to allow them to integrate quickly. (MEDE, 2012, p.4)

In January 2013, the Ministry of Education issued a letter circular for the inclusion of linguistic mediation mechanisms in the school-family communication dynamics, to the benefit of parents with non-EU citizenship. This is one of the first measures taken to create concrete links between parents of migrant learners and schools, proposing short courses for non-EU parents so that they, in turn, become mediators within educational institutions.

In March 2013, following the political general elections, the then new government set up the Ministry for Social Dialogue, Consumer Affairs and Civil Liberties (MSDC), whose competences include themes related to the integration of migrants¹⁰. One of the most important initiatives adopted by the new ministry is that of guaranteeing, on equal terms with Maltese nationals, free childcare for the children of non-EU citizens, if both parents work or study in Malta.

During the same year, the different initiatives for the integration of migrant learners – both EU and non-EU citizens – are concentrated in a single unit established by the Ministry for Education & Employment (MEDE), the Migrant Learners' Unit¹¹. The decision on this measure was taken due to the constant increase in the migrant population, which made it necessary to set up an infrastructure capable of managing migrant reception policies, special projects and teacher education courses. Government and European funds were specifically requested for migrant learner education and the professional training of teachers of English as a Foreign Language (EFL). More recently, the necessity to introduce the teaching of Maltese to non-natives has started to be tackled in schools. Through the award of this funding, MEDE has implemented various projects which covered the training of teachers in EFL methodology through the IF 07-11, recruitment of language support educators and parent leaders (through the Language Learning and Parental Support for Integration Projects- LLAPSI 1, 2 and 3) as well as the procurement of focused online materials targeting reading and spelling (RESS Project) and an online core competences' assessment tool (CCOAST project). In October 2016, MEDE through the Migrant Learners' Unit, submitted a proposal for EU co-funding which targets the consolidation and further development of the previous LLAPSI projects, as well as the setting up of new initiatives to support migrant learners. These initiatives include activities focused both on language learning and on inclusion measures.

Apart from this, the Unit has provided clear indications regarding the importance of investing in education in the early years, involving the families directly, and the need to avoid further procrastination:

The main areas of language-related support should take into account both in-school and out-of-school provision addressing both the learner and the family. Links between what happens during the school time, after school and at home should be

¹⁰ <http://socialdialogue.gov.mt/en/Pages/default.aspx>

¹¹ <https://migrantlearnersunit.gov.mt/en/Pages/About%20us/about-us.aspx>

established since one area influences the other. Studies have shown how investment in the early years pays off by reducing problems faced later on during the schooling lifetime of the learner (Faccioli et al. 2015, p.11).

Schools need to accept the fact that the phenomenon of migrant non-Maltese learners is here to stay ... Training in this aspect of inclusion, in the handling of multi-ethnic and multi-cultural classes, in the detection of discrimination and xenophobia, cannot be put off any more. (Faccioli et al. 201, p.19)

The Unit is responsible for the provision of an induction course for newcomer learners who speak neither Maltese nor English and who would therefore have major difficulties in following lessons in mainstream classrooms (Vassallo Gauci, 2017). Induction classes are held at the same school attended by the learner or, if not possible, in the geographical proximity of the child's receiving school. The induction course lasts for approximately one year or until learners have acquired the language competence deemed necessary, either in Maltese or English, or in both languages, to be able to join the mainstream classroom. Apart from the induction course, the Unit has extended its services to areas such as the provision of language support to migrant learners who are already in mainstream schools through pull-out sessions where students are drawn out of the mainstream classroom and given extra support in Maltese or English as needed in smaller groups. The Unit also organises social activity classes through the *Making Friends, Bringing Friends Club* where cohorts of Maltese and non-Maltese learners are invited to participate through fun activities while making friends during after school hours. Since 2017 the Unit organises *Language to Go* Summer language revision classes in Maltese, English or both languages for students who have completed the induction course or as an introduction for newcomer learners who will be attending Maltese schools in the following scholastic year¹².

In July 2013, MEDE established the 'Language Policy in Education Committee', in order to draft a country report on the linguistic education policies (MEDE, 2014) which constitutes the first step towards the formulation of Malta's 'Language Education Policy Profile'. The 'Profile' was published in March 2015, in collaboration with experts of the Council of Europe and of the Language Policy Unit of the CoE (MEDE-COE, 2015). The document tackles explicitly themes related to the two languages of schooling and access to education for non-Maltese students (mostly deriving from countries outside the EU) within a wider framework related to opportunities to renew the objectives of linguistic education in Maltese schools. The document also underlines the need to gradually heighten attention towards the adoption of an authentically plurilingual – apart from multi-cultural – approach towards the education of all pupils, including migrant learners. This approach should fully exploit the extraordinary potential inherent in the history and in the geographical location of the island and, therefore, in the linguistic repertoire of its speaking community, in which – a unique case in Europe – Semitic, Germanic, and Romance languages have taken root and mingled.

In the meantime, also in 2015, the restructuring of the Faculty of Education of the University of Malta has led to set up a Department of Inclusion and Access to Learning. One of the objectives of this department is to develop a teacher education model which caters for the needs of all learners, including the children of migrants. Particularly interesting is the fact that the Migrant Learners' Unit and the Department collaborate to create greater awareness – even in Maltese public opinion – regarding the importance to consider diversity, and therefore also multilingualism, as

¹² Initiatives such as the *Making Friends Bringing Friends Club* and *Language to Go* are part-financed by the European Union, Asylum, Migration and Integration Fund 2014 – 2020.

a precious resource for the entire community, a resource that deserves to be promoted and managed competently, through a unified and organised political effort which involves all the society. The Department is currently involved in preparing and training teachers who will be responsible for the delivery of Maltese culture and language courses for the integration of adult migrants. In the near future it also plans to offer a course in Cultural Mediation and a number of study-units which will serve as Continuing Professional Development courses for in-service teachers. These measures are aimed to address the serious deficiency, which is felt locally, in order to allow migrant learners to be able to receive more in-class and in-school support.

In May 2015, MSDC launched the public consultation 'Mind D Gap: Together we can make a difference'¹³, within the remit of the elaboration of the 2015-20 national strategy for the integration of migrants (MSDC, 2015). This led, at the end of 2017, to the publication of the Migrant Integration Strategy & Action Plan (MEAE, 2017), which provides clear goals to be reached by 2020 in various sectors of the Maltese society, including education.

In August 2015, the same Ministry established the Forum on Integration Affairs.¹⁴ One of the most important measures included in this strategy proposes a revision of the 'National Curriculum Framework for All' (MEDE, 2012), in order to further highlight matters regarding social justice, multi-cultural diversity, inclusion, and the understanding of different religious creeds. Once more, particular emphasis is placed on the importance of strengthening the linguistic skills of the migrant learners, with specific reference to Maltese and English, apart from facilitating the integration of these students at school. The MSDC strategy goes beyond compulsory education. It underlines the importance of permanent education as an instrument which allows total access to different sectors of Maltese society. However, even in this document there are no references to the maintenance and the promotion of the languages of origin of the migrants.

The general impression is that the measures adopted in recent years are encouraging ones, even though – in view of their full implementation – most of the initiatives which today regard linguistic and social integration of migrant learners in schools still depend heavily on the individual teacher or head of school. The creation of the Migrant Learners' Unit is an important initiative, which shows that the local education authorities are aware of the fact that issues at hand are to be managed more carefully than in the past. Acknowledging the importance of analysing and promoting the good practices which are already taking place in our schools is equally important. A good example of such an exercise is the 'Compendium of Good Practices on Inclusion and Equity in Schools' (MEDE, 2018). The report which was presented by MEDE in 2018, sheds light on educators' perspectives of challenges they face in bringing about social inclusion and equity in the school. It also highlights a number of educators' suggestions and examples of good practice for social inclusion and equity in the classroom and school. Apart from the general good practices listed in the Compendium, a number of positive initiatives which promote multilingualism are adopted in schools, or at college level, throughout the scholastic year. One such example is the celebration of 'Mother Language Day' on the 21st of February, when Maltese learners together with learners from a migrant background are encouraged to come up with a song, a poem, a small theatrical performance or anything they wish to share with the rest of the school in their own language (Vassallo Gauci, 2018). Another example is the publication of the book '*Kellimni - Let's Talk*' (Sciriha & Micallef Cann, 2018) on initiative of St Clare College Pembroke Secondary School. The book identifies topics, words and phrases in Maltese and English that newcomer learners in

¹³ http://socialdialogue.gov.mt/en/Public_Consultations/MSDC/Pages/Consultations/MDGIntegration.aspx

¹⁴ <http://socialdialogue.gov.mt/en/Forum%20on%20Integration%20Affairs/Pages/Welcome-Page.aspx>

Maltese schools will need to begin communicating with others and making friends. It also allows space for learners to write the meaning of the words and phrases in their native language and to add other vocabulary, thus promoting awareness of the value of the child's native language and celebrating its importance.

However, two problems underlined in Malta's 'Language Education Policy Profile' must not be underestimated (MEDE-COE, 2015). One is the difficulty to persuade public opinion that immigration is not a transitory phenomenon, but rather a structural component of modern society which is bound to grow. The other is the need to conceptualise a more flexible and transparent organisational model for schools, in which greater attention is given during teacher education to the specific dynamics of learning in plurilingual environments and where teachers are directly involved in action-research projects, which favour self-analyses of didactic methodologies and on the effective needs of students.

The analysis, in fact, highlights the apparent contradiction according to which, in a bilingual educational system, similar to the Maltese one, there still largely exists a homoglottic perspective, which in many ways is similar to the 'monolingual solitudes' (Cummins, 2010) assumption, according to which each language taught at school is to be learnt autonomously, and separately from other languages that learners may know or encounter. In pursuing a supposedly balanced bilingualism, this assumption compromises the possibility of exploiting to the full the potential strategies, such as code-switching, intercomprehension, and explicit interlinguistic reflection which, on the other hand, are fundamental for bilingual speakers. Many Maltese teachers are well aware of this through their daily practice in class. However, up to this day, there is still a lack of opportunities which could allow them to delve deeper into and assimilate these aspects within their teaching, as this is often highly characterised by targeted goals which one has to reach by the end of the scholastic year. Obviously, any progress in the direction of a more multilingual education would be beneficial for the integration of members of linguistic minorities, whose linguistic skills could be exploited to the benefit of the entire class. This would, in turn, constitute the basis for a possible – and augured – widening of the offer of languages that are taught in Maltese schools. In fact, it would be rather inappropriate for a State in the middle of the Mediterranean not to promote extra-European languages of growing global importance, such as Arabic and Chinese, although this would have to be done in a carefully planned manner.

In this respect, the introduction of a re-thought Foreign Language Awareness Programme (FLAP) in September 2017 for Year 3 and Year 4 students of state primary schools is certainly a small step in the right direction. The new FLAP offers an alternative to the programme previously carried out in primary schools in Malta (which consisted in giving a first taste of some of the foreign languages which are taught in Maltese schools at secondary level – Italian, French and German), in such a way to better reflect and implement the principles of plurilingual and intercultural education in the teaching of languages¹⁵. The new FLAP is in line with the proposals for language education heralded by the Council of Europe, in which the primary focus of language education is shifted from achieving mastery of a single target language to developing proficiency (of varying degrees) in several languages and experience of several cultures. This implies teaching languages in order to foster language awareness wherein one is not to:

¹⁵ Information retrieved from the unpublished proposal for a re-thought FLAP Programme for the Primary schools formulated by Dr Phyllisienne Vassallo Gauci and Dr Mario Pace and presented to the Ministry for Education and Employment (MEDE) on the 16th of September 2016.

...keep languages and cultures in strictly separated mental compartments, but rather build up a communicative competence to which all knowledge and experience of language contributes and in which languages interrelate and interact. (Council of Europe, 2001, p.4)

By means of a number of activities and the creation of enriching materials, young learners are being encouraged to reflect on the diversity that characterizes the process of linguistic development and communication. During FLAP lessons, students are exposed to a range of languages, both European and non-European and helped to develop an awareness of and interest in reading and decoding unfamiliar language (new sounds, alphabets, scripts etc...). In this way, the programme helps learners foster plurilingual and intercultural competences from an early age and leads them to develop a better knowledge of languages, skills to learn them, and positive attitudes towards linguistic diversity.

Conclusions and prospects

The geographic dimensions of Malta, which impinge on the organisation and distribution of schools over the island's territory, and the super-diversity which is distinctive of the migratory fluxes towards the island, undoubtedly warrant pedagogical measures and didactic materials which are tailor-made for the local context. The fact that, as can be evinced from the MERIDIUM data, these measures and materials are still inadequate in other neighbouring countries, does not augur well. In fact, it seems that making these instruments available is far from simple, and that the efforts made up to now for research purposes and to create innovative linguistic policies cannot be easily translated into efficient structural measures, which could be used in a practical way in class.

There is no doubt that the cultural and linguistic super-diversity which results from the presence of migrant learners must be tackled, while taking into consideration that, in the eyes of public opinion, the phenomenon is indeed a very sensitive one. Apart from this, significant financial and organisational efforts are necessary and these must be evaluated realistically. However, the challenge is worth taking. Otherwise, there is the risk of an increase in the number of learners who could be excluded from the scholastic system, with inevitable negative consequences not only on their performance at school, but also on their behaviour and their contribution to society in its entirety once they become adults. In fact, the OECD-PISA (2017: 343, Tab. III.7.3) refers that the difference between local learners and first-generation immigrants, as far as their feeling of belonging at school is concerned, is one of the largest among PISA-participating countries and economies: whereas 70.7% of Maltese-born students state that they they feel a sense of belonging to their schools, this only occurs in the case of 51.5% of migrant learners. Although this consideration is based on data collected in 2015, that is prior to a number of measures discussed in this paper, it cannot be disregarded and it would be interesting to verify if the gap has now narrowed. It is also worth noting, that in the same OECD-PISA report the difference between Maltese-born learners and migrant learners is less accentuated in other variables and more aligned to that of other countries, including the one regarding whether one feels lonely at school. This, for example, tallies to a difference of 5.8% between the two groups, thereby indicating that at the level of pastoral care there is a sense of responsibility towards the needs of migrant learners (OECD-PISA, 2017)¹⁶.

¹⁶ This result is also included in the highlights of the OECD PISA report, available at: <http://gpseducation.oecd.org/CountryProfile?primaryCountry=MLT&treshold=10&topic=PI>

Many local educational authorities, heads of schools and teachers, are well aware that linguistic and cultural pluralism are valuable assets in educational terms, as they harbour potential advantages for the students born and bred in Malta, which can help them develop their own horizons. The feedback from schools themselves is also important, despite being largely anecdotal and confined to some realities: in those schools where initiatives geared at promoting linguistic and cultural diversity are organised, the attitudes of teachers, families, and children – especially those attending primary schools – is very positive.

Tangible proof of this phenomenon was provided by the European project MERIDIUM. One of the objectives of the project was the production of a simple didactic instrument which can be used in primary classes with pupils of foreign origin, in order to stimulate curiosity and debates on linguistic diversity. The MERIDIUM researchers, therefore, devised a booklet (*Babel and languages*) structured similarly to a travel diary of an extra-terrestrial creature, named Babel, who arrives on Earth from the planet Multilanguage, where the languages of all the other planets are studied in order to communicate with other people of the Universe. In the diary, Babel describes what he learnt about the inhabitants of Earth and on their languages, using the six official languages of the MERIDIUM project (Italian, English, Portuguese, Romanian, Slovenian, and Spanish). Apart from this, Babel asks children to help him process the information he collected¹⁷.

The text is made up of five sections, each of which deals with a different aspect of linguistic diversity: individual bilingualism, collective bilingualism, linguistic families, the writing systems, and the learning of languages. The sequence of the arguments is organised according to a principle of increasing complexity and its aim is to create a discussion space in which the phenomena of plurilingualism and linguistic diversity are ‘naturalised’, that is they are represented as ‘normal’ and not as a product of extraordinary occurrences. The introduction of each section provides information regarding the general theme and continues with three simple exercises, whose aim is to stimulate in the pupil a reflection which is always based on his experiences and feelings regarding the languages he speaks and to which he is exposed in his environment. With this instrument at hand, the teacher can organise workshops for thematic analysis structured on the characteristics of the class, and on the life experiences and interests of the children.

The booklet has been well received, not only by the European Commission experts, but also by the school heads and teachers who participated in the seminars organised by the MERIDIUM research units in Malta, as in the other countries participating in the project. The distribution of the booklet to children was enthusiastically received even by their families and, in many cases, stimulated the creation of other initiatives aimed at creating true and proper didactic modules. One must also point out that the booklet and didactic experimentation that ensued are also useful to promote, among the teaching community, the guidelines for developing (meta) linguistic and educational awareness in plurilinguistic contexts, such as, for example, the projects promoted and subjected to successful trials by the European Commission, the Council of Europe (for example FREPA)¹⁸ and by several universities in the past few years.

The MERIDIUM experience induces us to endorse the opinion, also expressed in the ‘Language Education Policy Profile’ according to which it is probably more likely that pragmatic solutions will be found at ‘local’ level, rather than through high profile national campaigns which could

¹⁷ The booklet can be downloaded freely from the MERIDIUM website: http://meridium.unistrapg.it/sites/meridium.unistrapg.it/files/brochure_bambini.indd_esecutivo.pdf

¹⁸ <https://carap.ecml.at/>

be launched in support of migrant needs, much as this could be desirable (MEDE-COE, 2015, 52). Much hard work is required for the promotion and analysis of good practices, in order to help create a social environment completely favourable to the promotion of the linguistic and cultural diversity resulting from immigration in schools. Furthermore, there are problems which have to be solved with urgency, above all the professional preparation of linguistic mediators and support teachers who could facilitate the integration of migrant learners, also by following some of the more successful models used in other European countries.

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Section IV

IMPACTING ON PRACTICE... EXPLORING CURRICULA AND PEDAGOGICAL ISSUES IN EDUCATIONAL CONTEXTS

Strategies to learn about multiculturalism and diversity through Maltese history.

Yosanne Vella

Abstract

Any country, community or agency that embraces democracy must also embrace multiculturalism, for inclusion of all and acceptance of diversity are fundamental to human rights and democratic values. Politicians and administrators seem to instinctively sense this and wholeheartedly push multiculturalism in education, but it is not an easy route and teachers' apprehensions cannot be ignored. Unfortunately, while promotion of multiculturalism in education is rich in rhetoric it is poor when it comes to concrete ideas of what a teacher can do in his or her subject in the secondary school. One cannot negate the challenges that exist and it is here that schools can make huge contributions in meeting these challenges. They are very real, and educators and schools in my country, that is, Malta as well as in other countries are struggling to face the challenges resulting from social and demographic changes brought about by immigration and multiculturalism. What makes multicultural Maltese classrooms quite interesting is that they are a recent innovation, a few immigrant pupils in our classrooms were born in Malta while many others were not. It is quite different from having different ethnic pupils who are second or third generation children of immigrants. In many ways we are at this point in time in uncharted territory. There are a number of sociological, educational and political studies that address the impact of schools on their society where diversity is concerned. Issues of equity and justice are addressed in these studies, as they should, however they often stop short when it comes to answering teachers' very important question 'but what do I do in my classroom?' And it is precisely this 'what and how' that this paper attempts to answer. This paper reports a small scale study which tries to find ways how history as a school subject can promote diversity in the secondary school.

Keywords: Pedagogy, history, teaching, multiculturalism, diversity

Introduction

Back in 1999 I gave a presentation at a Euroclio Conference (European Association of History Educators) in Edinburgh on *Heritage and National Identity* where I quite brazenly claimed that "It must be emphasized that Malta is not a multicultural society, on the contrary, it has a quite homogeneous population" (Vella, 1999, p.13). Quite an uncompromising and straightforward statement but indeed at least where my work place, that is school classrooms, was concerned it was so at the time and had been so, throughout my own childhood school experience. Up to the 1990s a teacher in any Maltese school faced a class of pupils who were ethnically Maltese, Roman Catholic and usually hailing from the villages surrounding the school, and further segregated by gender since co-education in secondary schools only came into existence when a few new Private schools introduced it in the 1990s and then in State schools as recently as 2014. So you either taught at a boys' school or at a girls' school and furthermore from sociological studies conducted

in the 1980s different social classes gravitated into particular schools (Sultana, 1991; Darmanin, 1991). Therefore, in many ways my statement that Malta was a homogeneous society at that point in time was very much a truism.

However, I was not to know back then that 1999 was a very significant year for it was the year preceding the 21st century when it all started to change in Malta as far as population is concerned. Initially it happened very slowly with the first few hundred migrants arriving annually on boats and rafts from Africa but slowly it gained pace until between 2008 and 2012 when compared to other industrialized countries “Malta received, on average, the highest number of asylum-seekers compared to its national population: 21.7 applicants per 1,000 inhabitants” (UNHRA., 2012, p.13). After joining the EU in 2004, EU members also started to trickle in, followed by Eastern Europeans mainly from the Baltic States.

This has now resulted in quite interesting classrooms; for example, a class I recently visited to see one of my student teachers during her teaching practice was a year nine class (13 year olds) where only 3 were ethnic Maltese, there were three Russians, two Pakistani, three Italians, two Serbs and one Libyan. Perhaps this was an extreme case and it is true that in some villages 90% of pupils would still be ethnic Maltese and Roman Catholic, but in others you can get a kaleidoscope of pupils in one classroom just like the one I visited. In Malta today it is not uncommon to have various ethnic groups in the same class.

Multiculturalism in Malta

There is no question in my mind that any country, community or agency that embraces democracy must also embrace multiculturalism. Inclusion of all and acceptance of diversity are fundamental to human rights and democratic values. This is not to negate the challenges that exist and it is here that schools can make huge contributions in meeting these challenges. Politicians and administrators seem to instinctively sense this and whole heartedly push multiculturalism in education, but it is not an easy route and teachers’ apprehensions cannot be ignored. They are very real, and educators and schools in Malta as well as abroad struggle to face the challenges resulting from social and demographic changes brought about by immigration and multiculturalism (Zembylas, 2010).

What makes our multicultural Maltese classrooms quite interesting is that they are a recent innovation, a few immigrant pupils in our classrooms were born in Malta while many others were not. It is quite different from having different ethnic pupils who are second or third generation children of immigrants. In many ways we are at this point in time in uncharted territory. For example, one ongoing debate is what language to use, officially we are bi-lingual and most Maltese speak English but many Maltese pupils do struggle with English and much prefer to use Maltese. For all the years I’ve been in Education the policy for history teaching in Malta was that Maltese was to be used for all instruction during history lessons and I personally was always very strict about this and insisted with my trainees that all teaching materials had to be in Maltese. However, the situation has now changed while official policy has not yet caught up and at the moment there is no official policy on what language to use during history lessons. The advice I was given by the History Education Officer in May 2015 and who seemed as unsure as I am about the situation was to play it by ear and take a decision once you get to know your class. I suppose this makes sense under the circumstance and research has shown that codeswitching is in fact a useful pedagogical tool (Camilleri, 1995; Heller & Martin-Jones, 2001). One has to adapt to the audience in front of you and one history lesson I observed by a smart multitasking history teacher trainee was conducted in three languages Maltese, English and Italian.

There are a number of sociological, educational and political studies that address the impact of schools on their society where diversity is concerned. Issues of equity and justice are addressed in these studies, as they should, however they often stop short when it comes to answering teachers' very important question 'but what do I do in my classroom?' The position of many of these studies is articulated by La Belle, J. and Ward, C (1994) when they say what their book is not, in the introduction of their now classical work *Multi-culturalism and Education*:

"... nor is it a book about how to teach multiculturalism in the classroom. Although we review pedagogical and curricular approaches to multiculturalism and address the issues of educating the student from differing social and cultural backgrounds, we do not instruct how and what to teach to enhance diversity." (La Belle & Ward, 1994, p.2)

And it is precisely this 'what and how' that is my particular field of interest, working on the assumption that multiculturalism is a good thing this study attempted to find ways how history as a school subject can promote diversity in the real classrooms.

There are moments in history where communities do remain fairly isolated and this may give the false impression that multiculturalism is a recent phenomenon however when looking at the past from a holistic perspective it is in fact the 'isolated' moments that are the rarity rather than the norm. In this study I wanted pupils to become aware of Malta as an island that hosted diverse communities throughout its history. People of various ethnic origins did co-exist together with the local community. Few in Malta seem to be aware of this and some people view multiculturalism as a negative notion created by liberal politicians and as a result a number of anti-integration and anti-multicultural demonstrations have occurred. Unfortunately, or perhaps fortunately the dates I had chosen together with the head of school to start my history lessons and try out the strategies was the third week of November 2015 starting Monday 16th and the Paris Attacks occurred on the 13th, the Friday before. It was quite unsettling and I considered very much whether it would be appropriate to do the activities.



'Patriot' protest against integration
Malta September 29, 2014.



Paris Attacks November 13, 2015.

I decided to go ahead with the lessons and in fact there were no real problems at all.

The Research Design

With some thought history as a school subject can in itself be a means to teach multiculturalism.

Of course the worse possible approach is to give a teacher centered power point presentation on multiculturalism in history! Show and tell them what's it all about and 'they will get it'. A great temptation for many teachers but unfortunately that is not how pupils learn and absorb values and notions, one has to use much more effective strategies. It is also not the way language acquisition works, language acquisition being an indirect objective in multicultural classrooms. To learn a language research has highlighted the need to design activities which involve more pupil interaction (Dalton-Puffer, 2005, 2007).

Wonderful ideas on multicultural teaching in history come mostly from Britain mainly Levy and Smart's work on Multicultural Britain¹ and various inspirational papers in Teaching History² journal. In history every statement needs to be backed up by evidence and pupils need to learn this. We can have different interpretations but to be valid they need to be based on sources of evidence and one finds that the most effective history pedagogies in fact make use of historical sources to answer the very important historical question 'how do we know'.

What sources to use?

Paintings are one useful source which often intentionally or unintentionally depict the societies of their time. Visual evidence has been used to target inclusion and diversity in history teaching, and one such pedagogical approach was used by Jane Card when she used the painting of Dido Belle and Lady Elizabeth Murray. This society portrait shows Dido Belle the illegitimate mixed race daughter of Captain Sir John Lindsay, as Card says:

“Visual images such as Dido Belle and Elisabeth Murray portrait are powerful media for pupils to learn contemporary ethnically and diversity issues, concerns, problems and solutions. They are accessible to all pupils; as such they bring the past to life to illuminate the present.” Card, 2013 p. 19



Painting of Dido Belle and Elizabeth Murray attributed to Johann Zoffany, 1779.

Similarly I searched and found paintings which while depicting everyday life in the past in Malta also included people of different races (See figures 1, 2 and 3). I then created group work activities (available in both Maltese and English) for each source.



Figure 1: Antoine Favray 1706 – 1789 The Visitors



Figure 2: Giuseppe Cali 1846 – 1930 A re-evocation of 18th Century Malta



Figure 3: A.W.C. McFall 1862 – 1923 A variety of figures on the Palace Square, Valletta c. 1886

Apart from the visual evidence I wanted to include evidence from prehistory as well as classical times. One illuminating presentation given by Ilona Aronovsky³ at a Heirnet Conference in London in September 2015 gave me the idea on how to focus on one historical site which brings together a number of artefacts belonging to different civilizations. This would show that people were constantly on the move, travelling, immigrating, bartering, trading and generally mixing together in societies that can only be described as multicultural and diverse. One impressive pedagogical tactic used by Aronosky is that of using maps in such a way as to show the interconnectivity presented by the artefacts found in the Sutton Ho site. They show where the things came from and their multicultural aspect. For Malta one multi period site which brings together a huge number of primary sources is the Tas-Silġ site at Marsaxlokk a village in the South of Malta. This is a large complex where archaeologists have found remains of Megalithic Temples, Bronze Age settlements, Punic, Hellenistic and Roman Temple, as well as Byzantine remains, with one particular interesting artefact found in the Greek layer from Mesopotamia.



Tas-Silġ site (Photo: Frank Vincentz)

Activities/ Lesson Plan

Title of lesson: People have always been on the move resulting in diversity in all societies throughout history including Maltese history

Tme: Lesson plan covers two sessions of 35 minutes each

Objective: Analysis of sources archaeological and visual evidence

Historical Evidence from Maltese History

1. Tas-Silġ a multi-period site
2. Image of 19th century Malta (McFall drawing)
3. 18th Century painting – Ladies (Favray painting)
4. 18th Century painting – Upper Barrakka (Cali painting)

Resources used

Time line



Maps

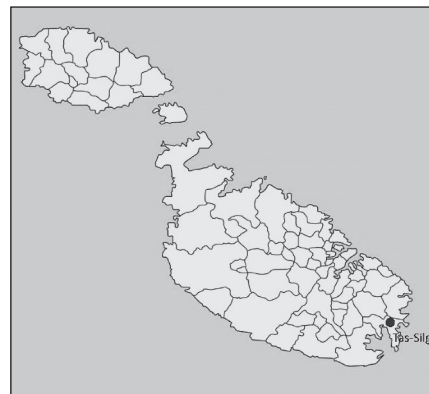
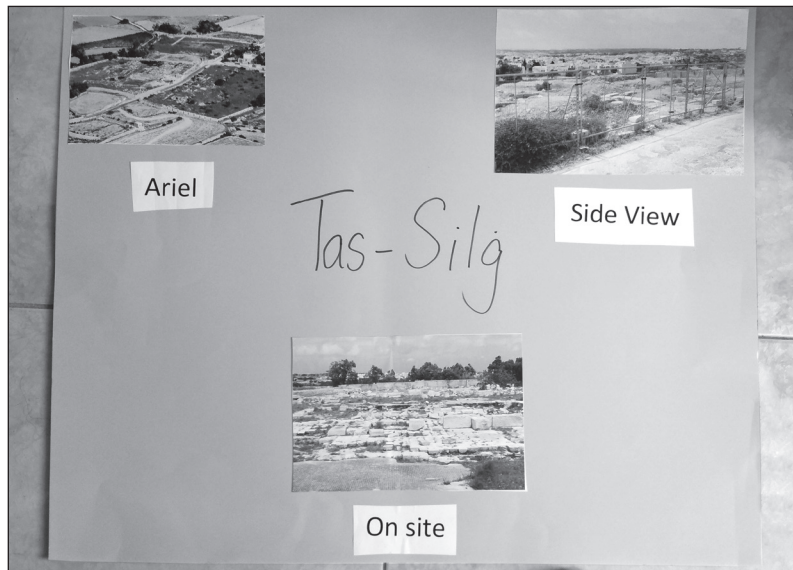
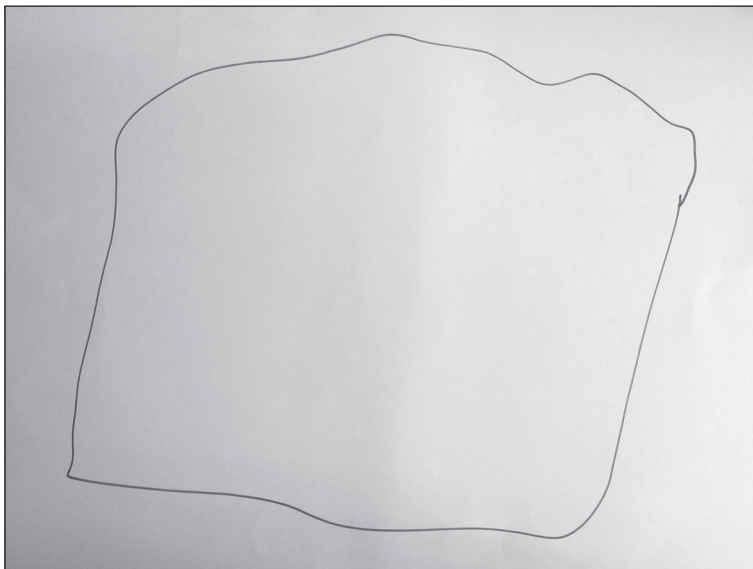


Chart showing on one side view of Tas-Silg from an ariel, from a side and from an on site perspective



Other side of chart showing plot of Tas-Silg where pupils had to place chronologically on top of each other the Primary sources found on the site.



The Primary Sources



Phoenician

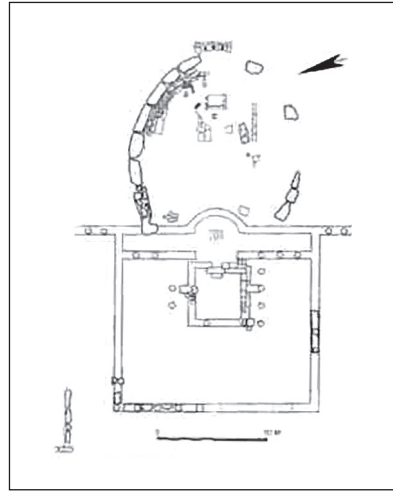
Cicero accused Verres of stealing from the temple of Juno at tas-Silg. Cicero told Senate:

"The representatives of Malta, who were sent here by the leaders of their land, give evidence that the theft from Juno's temple; that this person left nothing inside it, that that place where often the ships of the enemy took refuge, where pirates every year typically spent their winters, but no pirate ever desecrated or destroyed the temple, it is only Verres who emptied it"

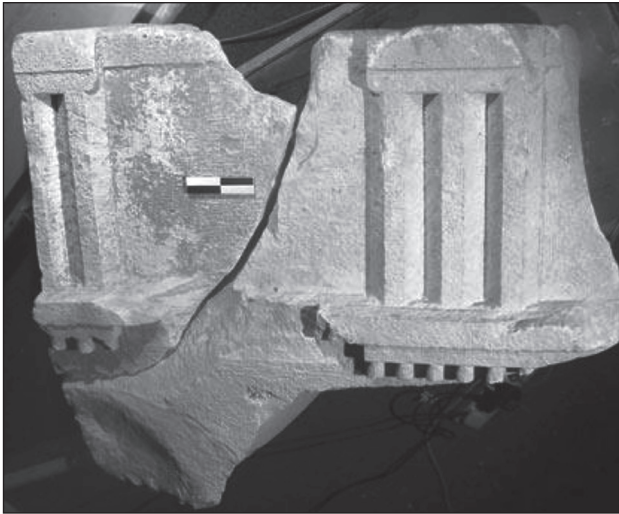
Roman



Byzantine (Photo: Frank Vincentz)



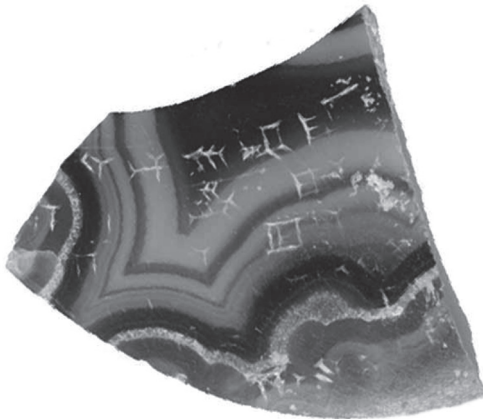
Byzantine



Greek



Megalithic



Mystery: How did it get to tas-Silġ?
Mesopotamia found in Greek layer.



Table 1: Discussing meaning of multiculturalism and diversity

Introduction: I put up the words ‘multicultural’ and ‘diversity’ up on the whiteboard and the class discussed the meaning of these two words. Then I told them that today we are going to try and investigate whether Malta ever had in the past diverse communities and a multicultural society. It was emphasised that in history your answer should always be based on Evidence. (See Table 1)

The following three questions are put on the board and class told they will be asked these questions after following a PowerPoint presentation *People on the move* (3 minutes long Table 2)

- a. Where did the first human beings come from? How do we know?
- b. How come today they are found everywhere?
- c. Why do people move about?

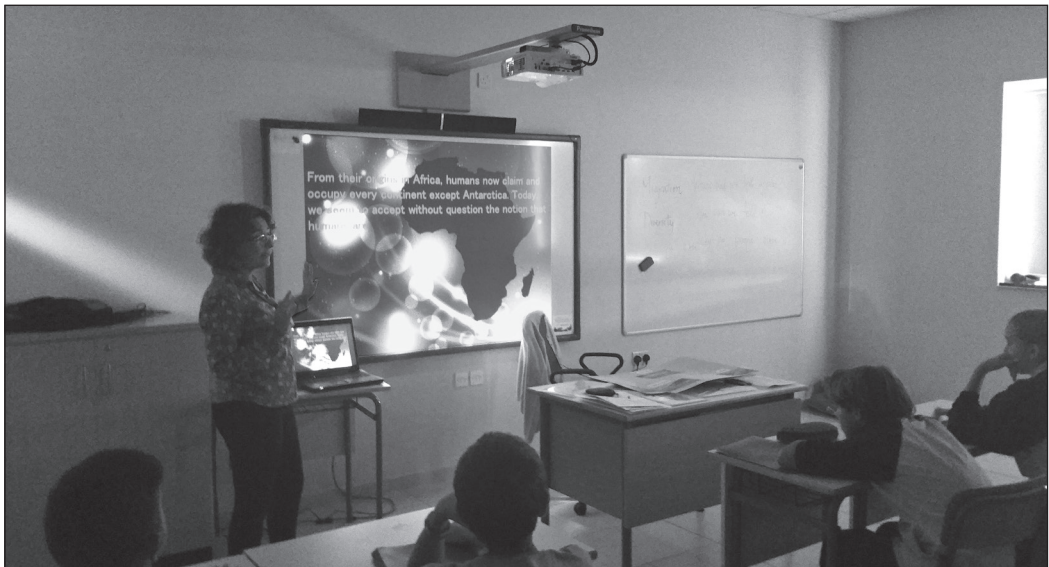


Table 2: Powerpoint Presentation

Development

Class divided in groups and each one goes through 5 tasks with teacher feedback and class discussion after every task (See table 3)



Table 3: Class divided in 5 groups

Each group was asked to work through the task and then there was group and teacher discussion/feedback on the answers given by each group.

Step 1: Pupils were asked to do task 1 which was the Tas-Silg Activity – Tas-Silg a multi-period site. Set of artefacts from Megalithic, Bronze Age, Hellenic, Roman Byzantine found at Tas-Silg were given to the pupils. (See Primary Sources in Resources section) The pupils were instructed to place them on plot (see charts in resources section) in chronological order use timeline to help you.

Tables 4, 5, 6, 7 and 8 show pupils working on Task 1



Table 4



Table 5

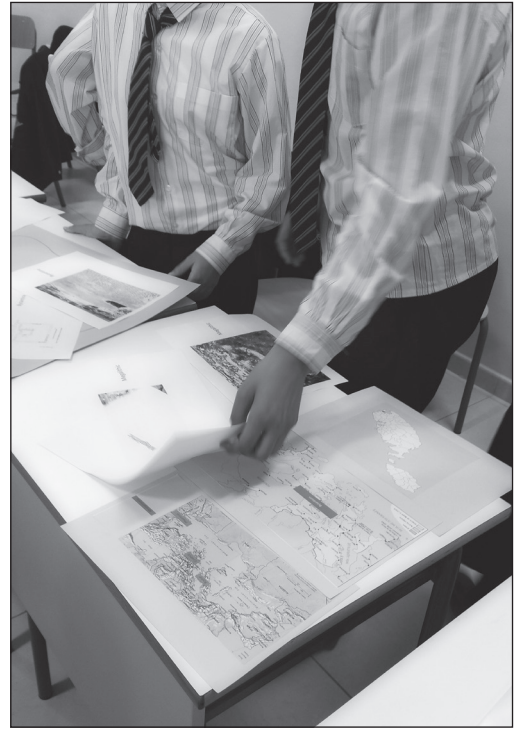


Table 6



Table 7



Table 8

Step 2: Pupils had to work out as group work task 2 and after task was completed there was class and teacher feedback on the work.

Diversity in Maltese Society

Analysing the painting: Visual clues



Antoine Favray (1706 -1789), painting 'The Visitors'

1. What is the black lady doing? Who might she be?
2. Why would Favray include a black lady in the painting?

Discuss these reasons and give them a mark 1 to 5, 5 being the most significant.

- A. They were part of everyday life and he wanted to show a normal gathering of ladies;
- B. The employment or ownership of a black servant showed the wealth of the people in the painting;
- C. Painters like Favray liked to show off their ability with colour, showing that they could paint shadows, like shades, dark and light.

Can you think of another reason?

3. Similarity and difference between the ladies standing up and the two ladies near the baby.

The same	Different

4. What does this tell you about Maltese society in the 18th Century?

Step 3: Pupils had to work out as group work task 3 and after task was completed there was class and teacher feedback on the work.

Diversity in Maltese Society

A. W. Mcfall 'Some Figures at the Palace Square' around 1886



- A. Look carefully at the following people and write who they might be and what you think they might be doing.

People	What do you think he, she or they might be doing
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	

- B. Do these people seem surprised to see each other? Why do you think so?
- C. What does this tell you about Maltese society in the 19th Century?

Step 4: Pupils had to work out as group work task 4 and after task was completed there was class and teacher feedback on the work.

Diversity in Maltese Society

Guiseppe Cali (1846 - 1930) A renovation of 18th Century Malta



This painting is showing Maltese people enjoying themselves at Upper Barrakka.

A. Mention 3 things you can see

B. Do other people seem surprised to see him? Why do you think so?

C. Why do you think Cali drew him in the picture?

D. What does this tell you about Maltese society in the 18th Century?

Tables 9, 10 and 11 show pupils working on tasks 3, 4 and 5



Table 9



Table 10



Table 11

Conclusion of lesson

Last 20 minutes of lesson was done by pupils working individually and answering the following worksheet:

People have made the following comments on Facebook, Twitter and Newspaper blogs.

What would you say to them ? Write your answer under each comment and you must use historical evidence to back your answer.

1. *It is not natural for people to mix. It goes against nature to have a multi-cultural society.*
2. *The greatest cultures and nations only had one race of people.*
3. *In Malta everyone has always been exactly the same. There was no diversity.*

Analyses of Pupils Responses

Year 7 (11 year olds) and Year 8 (12 year olds)

The following are a few sample answers given by the two classes. I categorised them into three type of answers. Those that gave very good responses that showed 'Reasoning which make direct reference to sources with detailed explanations', those that gave quite good responses which showed 'Reasoning which just gives general arguments, and only brief reference to sources' and those that gave 'Brief answers with no attempt to use evidence'.

Year 7

Reasoning which make direct reference to sources with detailed explanations

Statement 1

It is not natural for people to mix. It goes against nature to have a multi-cultural society.

Reasoning which just gives general argument and only brief reference to sources

Statement 1

It is not natural for people to mix. It goes against nature to have a multi-cultural society.

Answers with no attempt to use evidence

Statement 1

It is not natural for people to mix. It goes against nature to have a multi-cultural society.

Year 8

Reasoning which make direct reference to sources with detailed explanations

Statement 1

It is not natural for people to mix. It goes against nature to have a multi-cultural society.

Reasoning which just gives general argument and only brief reference to sources

Statement 1

It is not natural for people to mix. It goes against nature to have a multi-cultural society.

Answers with no attempt to use evidence

Statement 1

It is not natural for people to mix. It goes against nature to have a multi-cultural society.

“It doesn’t go against nature because in a painting by A.W. McFall we can see a Turkish man with Maltese women in ghonellas. And nobody is doing anything to him. Even in the Roman period the Roman Army had many men from different countries and the Roman Empire was one of the strongest”

I say you are wrong about it everyone is equal in history people of mix cultural in McFall picture. There are people in the Palace Square around 1886.

Not true. You are wrong there is evidence everyone can mix and part of nature. The paintings found say that everyone is mixed. Example Antoine Favray’s painting.

No you are not right! Because if you don’t know we are all the same because we all originated from Africa, so we are basically all the same and it doesn’t go against nature. There are many good benefits from being in a multi-cultural society like: we are going to learn from other cultures.

It is natural that society is multi-cultural because we immigrate and we mix and we’ve been mixing from the start with different cultures and we have evidence from Tas-Silg and many other places that left remains that we mixed with many different people of different cultures.

No it does not go against nature.

People get fed up in the same place.

They have a right to be happy.

If we want to we can go where there are black people. First people came

In historical times it was natural for people to mix because black and white people together work better than being apart.

No, you’re wrong. Nature isn’t about having all the same people. Have you never heard of migration? Well it’s when people move to other places and no it’s not true, it does not go against nature to have a multi-cultural society, because we have looked at evidence of the past to show that it does not go against nature to have a multi-cultural society.

It is natural because now we are multi-cultural. We have to respect others. In paintings of the past you could see mixed people.

Don’t agree with him/her because from beginning of lesson we learnt that from the beginning all people started to go everywhere and they get encouraged by others.

No you are wrong. It is good for people to mix because I think that the people can get to meet different cultures. Because they can get to understand more cultures, religions and languages ...

No because everyone is human and we have evidence.

from East Africa and started to spread around the world.

Don't agree because humans are made to travel. Also it is good that we mix because we can mix with other cultures.

I think you are saying wrongly because people are part of nature and you have black people. In the 18th century Favray drew picture which has in it people of multicultural society and they talked to each other.

Don't agree with you, colour of skin should not effect everyday life.

Reasoning which make direct reference to sources with detailed explanations

Reasoning which just gives general argument and only brief reference to sources

Brief answers with no attempt to use evidence'

Statement 2

Statement 2

Statement 2

The greatest cultures and nations only had one race of people

The greatest cultures and nations only had one race of people

The greatest cultures and nations only had one race of people

You are wrong everyone mixed 'multicultural' everyone mixed. With the evidence we found after Rome took every country everyone mixed and everyone lived with everybody. In the painting by Antoine Favray even people of dark skinned worked with whites.

I say it is wrong because the ancient Romans were not just just Italians these were people from different nations and cultures in Rome.

The greatest cultures and nations have lots of races because without some races we couldn't get to where we are.

I don't think so because everybody had different ideas from different cultures. I know this because before in the 18th and 19th century there was already a mixture of cultures and our evidence is

That's legend you should go back to school and learn all over again like roman empire was one of the greatest empire was made up of different races and all co-operated and made a great nation.

No it couldn't be because with help of migration people have moved all around the world. There isn't a country with only one race.

There was never one race look at McFall's painting.

If nations and cultures mix we will have people with more talents and learn new things.

No because one of the greatest were the Romans and these were mixed multicultural.

the paintings that Antoine Favray and A.W. Fall did.

The greatest cultures and nations were made of different races and we know this because people in the past left paintings which show different races like the painting of A.W. Fall 'Xi figure f' Misraħ il-Palazz' which was painted in 1886.

You are never going to find a country with one race. In McFall's painting you find people from different countries

You are wrong look at places like America and how strong they are together with diversity.

No because we have evidence best races are mixed.

Reasoning which make direct reference to sources with detailed explanations

Statement 3

In Malta everyone has always been exactly the same. There was no diversity.

Not true everyone was different. For example black eyes and others blue. Everyone was different like in the paintings we found like of Antoine Favray and McFall everyone different.

I have to disagree with you because in history there are remains of things from other contries and it proves that a lot of races have been in Malta and another thing is the language because it has Arabic, Italian, English, Phoenician etc that's another proof.

Reasoning which just gives general argument and only brief reference to sources

Statement 3

In Malta everyone has always been exactly the same. There was no diversity.

I would say that isn't true because there were people with coloured skin in two paintings and even now people have different skin colour and races.

You're wrong because in history we know that Sicilians came before anyone else so we have diversity we have English, Bulgarian, Italian and African people and the fact that Malta has been ruled over by a lot of different countries.

Brief answers with no attempt to use evidence'

Statement 3

In Malta everyone has always been exactly the same. There was no diversity.

In Malta not everyone was the same because people were born from different families and people from all over the world got mixed.

It's not true, Malta has changed a lot. There is evidence people move to other places you can't just say that without looking at the evidence.

I do not agree because people in Malta are all different because people came from everywhere like they had done a long time ago from Africa.

No, you're wrong because evidence says otherwise. Evidence says that in 1886 (circa) we were already mixed. A.W.Fall drew a painting with different races which look like to be Arabic, Egyptian and Turkish and more.

I don't think it's true because we have evidence at Tas-Silġ. There were remains from the time of the Greeks, Prehistory, Medieval and other remains from other times. That way we know there was diversity.

In Malta there was always diversity and we know this because we have evidence in paintings of Antoine Favray 'The Visitors' and of Guiseppe Cali 'Memory of Malta' which show people of different races in Malta together.

Not true Phoenicians, Arabs, Normans, French etc they are all different, that's way Malta is multicultural.

People from different countries came to Malta and we can tell that because otherwise we wouldn't have got the plague.

False because there are lots of painting showing blacks and whites together.

I don't think so because people on voyages must have stopped here.

Conclusion

There were no students who agreed with the statements and while some of the pupils' answers were simple straight forward comments there were others who did manage to back their arguments with evidence from the past which they had come across their activities during the lessons or sometimes even using evidence from their own personal history knowledge. The pupils' statements are all valid arguments even those that fall within the weak brief response category but of course we as educators should aim for getting responses which fall within the 'Reasoning which make direct reference to sources with detailed explanations' category. Those in this category were not few in number although the age difference between year 7 (11 year-olds) and year 8 (12 year-olds) surprisingly did have quite a significant effect, with year 8 pupils on the whole giving better responses. In both cases however it is evident that the class activities and teacher support had a very direct influence. This means that teaching approaches do indeed effect pupils' performance for the better. I had two main aims in this whole exercise, first I wanted to pass over the concept of multiculturalism being a phenomenon that is as old as humankind and not a modern one at all and by using historical sources from different centuries I believe this was achieved. This concept is of course one interpretation in history but a valid one for it is not

a mere statement but one backed by historical sources that give us the evidence. This leads us to the second aim of this study, which was to transfer the precious history idea to the class that in history one can have a valid interpretation only as long as it is based on evidence. Similarly, attitudes, values and opinions should only be formed after looking at the evidence rather than mere unfounded emotions. From the pupils' responses this concept was clearly understood by those who did not just pass comments but backed them up with specific historical evidence.

This short study was not based on one particular topic from the Curriculum but purposely used model tasks from various historical periods which can then be adapted to any topic or title. The tasks were closely linked to the objective of the lesson and this together with the interaction and pupils' attention during the lessons show it was a successful exercise; further validated by the pupils' written feedback which show that a sizeable number did in fact back their arguments with examples from the past. Diversity and multiculturalism cannot be taught in one history lesson or by giving a lecture using particular topics which are deemed to be appropriate like for example 'Human Rights' and 'Immigration'. On the contrary strategies similarly to those employed in this study should be integrated in whatever the historical topic and time period being taught is and should become an integral part of the repertoire of skills of a competent and effective history teacher.

Notes

1. See Roger Levy and Dean Smart's *Multicultural Britain Teacher Resource Book* Nelson Thornes 2002 publication
2. Primary History Issue 65/ Autumn 2013 *Historical Association publications 2000 – 2013 Diversity in history; exemplar lessons* p.12 and 13
3. Presentation at Heirnet Conference London 2015 by Ilona Aronovsky *Sri-lanka to Stton Hoo Tracking the Garnet Trail. What can we learn from Gold and Garnet Artefacts 5th to 7th Centuries CE? Designing an Enquiry for KS2*

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Section IV
**IMPACTING ON PRACTICE... EXPLORING CURRICULA
AND PEDAGOGICAL ISSUES IN EDUCATIONAL CONTEXTS**

Holistic development of the child through Physical Education based on the ideals of Olympism.

Karl Attard

Abstract

This paper takes a close look at how physical education (PE) teachers can positively impact students' development in the various domains. In order to do this, PE teachers themselves need to be professionally prepared to teach PE with a focus on not only the physical domain, but on the holistic development of the child. One way of doing this is by basing Physical Education Teacher Education (PETE) on Olympism – since Olympism views engagement in sport as a necessary and desirable component for the holistic development of the person. Therefore, sport should contribute to the physical, cognitive, social, and moral development of the child. Yet, such development does not occur automatically but needs careful planning from adults working with children. The main aim of this paper therefore, is to analyse how PE can contribute to the child's holistic development, with a special emphasis on moral and social development.

Keywords: Olympism, physical education, holistic development, moral development

Introduction

Olympism promotes the development of *ideal* human beings in *ideal* societies through notions of respect, fairness, cooperation, effort, and human development (IOC, 2007). These are characteristics that humans generally believe to be important for harmonious living in today's world. Additionally, Olympism does not only view sport as physical activity, but more importantly 'as a formative and developmental influence contributing to desirable characteristics of individual personality and social life' (Parry, 2003, p.2). As a teacher educator, I try to influence the development of prospective physical education (PE) teachers based on the ideals of Olympism. This requires that I firmly believe that Olympism has positive educational implications. In fact, my belief is that through Olympism prospective teachers can better understand how they can positively impact a child's holistic development. Kohe (2010) argues that teachers need to be able to understand Olympism, and this could be done best through engaging in critical dialogue upon these ideals. The aim of this chapter is therefore to analyse how PE can contribute to the child's holistic development, with a special emphasis on social and moral development.

The use of the word *ideal* is used with a purpose here. Olympism hinges on philosophical anthropology, where theories of human nature abound (Girginov & Parry, 2005). Every society has the idealised conception of how a human being should be, and what qualities that being should possess. Muller (2004) refers to the work of Nissiotis (1987) when arguing that such ideals can be seen as 'unattainable extremes... set up by a conscious effort as something to be striven for' (p.3). Philosophical anthropology therefore, is 'an idealised conception of the human being towards

which the ideology strives in its attempted social reproduction of the individual' (Parry, 1998, p.9). Such an idealised conception is also promoted through Olympism, since through Olympism individuals can 'demonstrate all good human values towards an ideal human being. Therefore, it is a philosophy of life and it contains a wide variety of ethical values' (Hsu, 2000, p.253). In de Coubertin's own words, 'Olympism combines, as in a halo, all those principles which contribute to the improvement of mankind' (cited in Muller, 2004, p.4). Additionally, Olympism can be seen as targeting two types of development: individual development and international development. The former is indispensable if the latter is to occur, because tomorrow's society depends on the individual development of today's children (Najeeb, 2011). This is why the holistic development of every individual is important, and PE is favourably positioned to positively influence such holistic development. Yet, the promotion of such an *ideal* through Olympism is not in itself unproblematic, especially due to criticism particularly in relation to Eurocentricity (Wamsley, 2004; McNamee, 2006). But physical educators around the world who are primarily interested in the holistic development of their students, should not fall into the trap of understanding Olympism as an unchanging concept, especially when de Coubertin himself pointed out the possibility of Olympism undergoing change (Muller, 2000). One example is *fair play*, (which for this chapter is broadly taken to mean ethical behaviour). What is *fair play* for different cultures? Has the concept changed over time? Muller (2004) contends that 'even though Olympism is based on the culture of the Christian West, and hence that of Europe, comparable ethical values also form the foundation of human life and coexistence in other religious and social systems too' (pp.10-11). In fact, the *ideal* human being is defined by culture and time (McNamee, 2006). Similarly, the ideals promoted by Olympism should be culturally and temporally relative (Naul, 2008; Girginov & Parry, 2005; Parry, 2006). Hence, educators should always heed Culpan & Wigmore's (2010) statement that 'for it to be successful in education, on-going development, renewal and re-examination is required to ensure that Olympism is neither an ideological inscription nor a romantic naivety of yesteryear' (p.68). But who is best situated to do this? A person who has professional knowledge of how children develop holistically is important here; so too is a person who has contextual and cultural knowledge of the particular community. If, as Binder (2005) contends, a person's interpretation of the world depends on the cultural filters (prior learning) one possesses, then it would be naïve to think that the holistic development of students can be prescribed in international fora. Rather teachers as professionals should possess the tools to make learning relevant to their students. Teachers should not be passive recipients but proactive in analysing and making informed decisions about what is pedagogically relevant. This is exactly why physical education teacher education (PETE) programs should focus on teachers' understanding of the child's holistic development, as well as teachers' ability and propensity to continuously analyse and examine the concept of Olympism.

If Olympism is not a system of philosophical or pedagogical assumptions, then it is hardly striking that we do not find any theoretically based structure of Olympic pedagogy with Pierre de Coubertin. If Olympism does include divergent approaches, which may also change according to the cultural background as time goes by, then no unique system of Olympic pedagogy can exist without different approaches depending on the culture and the changing periods of societal developments (Naul, 2008, p.26).

Therefore, although Olympism originated from European philosophy and traditions, educators around the world need to analyse and adapt the *ideal* so that it becomes appropriate for the local situation (Naul, 2008; Najeeb, 2011). Unfortunately, the contextual knowledge educators have of particular communities, students and their needs, has not been given due importance in the past (Binder, 2001).

Olympism and the definition of excellence

De Coubertin's philosophy of *participation* and trying one's best is vividly depicted in his own words, when he stated that, '*the important thing in life is not the triumph but the struggle, the essential thing is not to have conquered but to have fought well*' (cited in, Girginov & Parry, 2005, p.4). This is how we should interpret *excellence*, both in the sporting sphere, and more specifically in PE. *Excellence* should be considered as *achievement for the individual* through continuous effort for improvement, rather than as *achievement over others*. In Siedentop's (1994) words, 'in the pursuit of competence, competition is almost never against someone or some team; it is a contest with oneself to surpass objective standards of performance' (p.14). This is also in line with the fundamental principles of Olympism, as the Olympic Charter (IOC, 2007) clearly states that 'Olympism seeks to create a way of life based on the joy of effort' (p.11), even though as Parry (2003, 2006) states, issues such as *excellence* are often generic and open to various interpretations.

The main problem arises when *excellence* is directly related to winning, and therefore *achievement over others*. In such scenarios, the end result (*the triumph*), rather than the struggle itself, is what is mostly valued. Adults working with children whose understanding of excellence is closely related to *the triumph* can easily fall into the trap of giving less importance to the less able. However, can't the less able also benefit from the educational value of what Parry (1998) calls a properly designed program of sport that aids in the development of character? If *achievement for the individual* is the focus, then the answer is affirmative, but if *achievement over others* is the focus, then the dark forces of sport whose sole focus is winning tend to work against moral development that is so central to Olympism.

Kohe (2010) contends that 'most assume that sport is a tool to foster social and cultural values, beliefs, morals and virtues' (p.479). However, when taken-for-granted assumptions remain unquestioned, they become dangerous, as they start to be considered the norm without much possibility of improvement (Attard & Armour, 2006). It is for this reason that adults working with children need a reality-check and question whether their behaviour is really promoting positive moral and character development. And this is exactly why the interpretation of *excellence* is important. As PE teachers, our aim is to educate for life. Students need to understand that life is not without struggles. They will face problems that need to be overcome. They also need to understand that in order to make the best out of life, they continuously need to challenge themselves to improve. With this interpretation of *excellence* in mind, focus is on lifelong learning and development. If on the other hand *excellence* is understood as *achievement over others*, cheating becomes a possibility. It becomes a way of reaching that all important goal – winning. For example, Parry (1998) makes the following argument.

Taking drugs makes one an instrumentalist – a self-instrumentalist – in using one's own body as an instrument to success. If we are sincerely interested in human values such as respect for persons (which includes not using persons as a means to ends; but seeing them as ends in themselves) then it seems wrong for them to be used (even by themselves) as an instrument (p.12).

Olympism education

It is important to state that the arguments presented in this chapter are not about Olympic education. They are about PE programmes that focus on the harmonious holistic development of the person as projected by Olympism. Culpan and Wigmore (2010) contend that 'present Olympic education programmes do not focus on Olympism and have negligible pedagogical value' (p.67).

On the other hand, they argue 'for an Olympism education that can be delivered through physical education and sport programmes in schools' (p.67). Therefore, my view is that PE is used as an important vehicle through which the child develops holistically through education that really focuses on Olympism. This is a far cry from some Olympic education programmes which Binder (2001), Naul (2008) and Culpan and Wigmore (2010), amongst others have described as irregular; sporadic; focusing on facts and figures; having negligible pedagogical value; presented as passive classroom activities and are thus detached from physical activity and sport; and are rarely focussed upon, let alone driven by Olympism. In contrast, PE as viewed in this chapter should have Olympism as its driving force, with importance given to aspects that children will find useful in their everyday life at school and beyond, rather than based on the history of ancient and modern Olympic Games. For why should precious time at school be used to present students with such things, especially when considering that this information is readily available at the click of a button? Shouldn't teaching be a process through which students' learning is facilitated through constructivism? As Naul (2008) points out, de Coubertin's view was 'sporting education compliant with the fundamental principles of Olympism' (p.102), because Olympism is a philosophy of life, and:

A philosophy of life is more than sport, and is also more significant than school and lessons. We should aspire to an equivalent lifestyle that goes beyond sport and fair play within sport. It also calls for more respect than for one's opponents and sporting partners alone. A lifestyle is a complex structure that describes the bundle of behaviours, attitudes and outlooks that characterise and guide the actions of individuals in the various social milieus of their everyday life (Naul, 2008, p.112).

Arguably, Olympism education through PE should be 'a culturally relevant experiential process of learning an integrated set of life principles through the practice of sport' (Culpan & Moon, 2009, cited in Culpan & Wigmore, 2010, p.71).

Olympism as a driving force in the teaching of physical education

A philosophy is one thing (*an ideal*), and making it a way of life for our children and future generations is another. Therefore, PE teachers need to provide opportunities for students to experience Olympism. It should not remain a theoretical concept but a tangible and concrete experience. This can happen primarily if as educators, PE teachers challenge students. They need to help students analyse the sport sphere and highlight various aspects that are or are not in line with Olympism. In such a way, students can develop critical thinking as well as develop morally, by learning to question what dominant thought usually takes for granted in the sport sphere and beyond (Culpan & Wigmore, 2010).

The main vehicle used in PE is sport, and the tenet behind using sport as an important tool is that:

Sport itself is educative – that games, for example, are laboratories for value experiments. Students are put in the position of having to act, time and time again, sometimes in haste, under pressure or provocation, either to prevent something or to achieve something, under a structure of rules (Girginov & Parry, 2005, p.8).

Sport and games in particular, indeed have a lot to offer as regards student learning. The assumption is that participation in PE and sport programs 'will not only develop stronger and healthier boys and girls but also, and perhaps more important, will make better citizens through the character building that follows participation in properly administered amateur sport'

(Brundage, 196, p.39). Of importance here are the words '*properly administered*', since positive character development does not come automatically through sport participation, as it seems to be widely and erroneously assumed (McNamee, 2006). Rather, it needs careful planning, and should be taken care of by people who really believe in the philosophical anthropology of Olympism. Let us remember that most students' view of sport is strongly influenced by sporting experiences outside of school and professional sport as depicted through the media. This is because children's learning is ongoing and not solely confined to what is being presented at school (Naul, 2008; Penney & Jess, 2004). Let us also remember that the most difficult part is unlearning what has been previously learnt and taken-for-granted. It is for these reasons that moral and character development need to be given a lot of thought by teachers. *What* students do and *how* they do it, together with *why* they do it is the platform through which PE teachers should educate. Analysis of situations by teachers and students is extremely important; as such analysis of what goes on in the world of sport and also during lessons aids with the development of various domains. For example, a recent discussion with prospective teachers arose when I stated that I remember a time when opponents deliberately stopped play when an opponent was injured. I also stated that this is becoming increasingly rare to see in various sporting disciplines. In football for example, it is now up to the official to decide if to stop or not. Why such a change in just a few years? Is it in the interest of spectacle? Are any commercial interests involved? Isn't it ethical, and of good example, to see if a colleague needs help, rather than continuing with play? Does our understanding of *excellence* as previously discussed in this paper, impact upon ethical decisions? It is through similar questions and discussions that prospective teachers critically analyse Olympism and the bearing it can have on student learning and holistic development. Such discussions arise due to the held belief as a teacher educator that if Olympism is used as a strong foundation for teacher decision making, then student learning takes the intended direction – i.e. working towards the *ideal* human being. Therefore, in Girginov and Parry's (2005) words, I believe that 'the way forward for physical education lies in the practice of sport that is influenced or informed by the philosophical anthropology (and the ethical ideals) of Olympism' (p.8).

But what happens if PE teachers present sport as a set of skills that need to be mastered? If focus is solely on the physical domain? If winning is the ultimate goal? Siedentop (1994) has heavily criticised PE when this is simply presented as a set of closed skills and techniques that need to be practiced repeatedly until they are mastered by the students. This is increasingly problematic if the skill is totally isolated from the real-game situation. If PE is presented in such a way, then it has no place in the curriculum, simply because most of the educational benefits that sport has to offer are lost, or at best drastically minimised (Naul, 2008). The aim should be children experiencing holistic human development through PE. If in addition to that students can excel in one or more sports, then that is a bonus that needs to be encouraged by the teacher. However, we must always remember that sport is simply the vehicle through which PE teachers can educate and prepare individuals for a healthy lifestyle – i.e. physically, affectively, socially and cognitively healthy. Therefore, PE's aims should shift 'from a training or competency focus to a truly educative focus, and elevating the teacher from the status of a skill-developer to that of an educator, contributing to wider values than specific skill-based outcomes' (Girginov & Parry, 2005, p.152).

Pedagogically however, one must not fall into the trap of *teaching about Olympism in a passive manner*. It is more powerful if students *experience* Olympism by experiencing real-life situations. According to Muller (2004), 'it is of little use to schools today to offer Coubertin's interpretation of Olympism as an educational subject without practical examples' (p.8). And I add: *what better example than real-life?* Students need to analyse their own experiences, where such an analysis is

guided through questioning by the teacher/teacher-educator. Although this is not the only way, it is a very powerful way of learning through and about Olympism. This is what I aim to achieve, and it is gratifying when prospective PE teachers do not solely question issues related to sport, but start to question Olympism itself, and its relevance to today's youth. The aim is to have PE teachers who neither focus solely on excellence in sport, nor focus on *teaching about Olympism in a passive manner*.

It is thus important to integrate the contemporary health-focused concept of PE with the holistic development approach focusing on the emergence of social and moral values (Naul, 2008).

The physical domain

When it comes to the physical domain, the main focus should be physical literacy, with special attention given to lifelong physical activity and fundamental motor skills that are transferable from one activity to another. The child therefore needs to be exposed to various games and activities which serve as a vehicle for such intended learning. As Kidd (1996) contends, sport is simply a vehicle; a means to an ends, rather than the end itself. Learning of fundamental motor skills is of utmost importance if the ultimate aim is for students to engage in lifelong physical activity. Research has shown that the level of competence shown in fundamental motor skills positively influences involvement in sporting activity (Okley, Booth & Paterson, 2001). Focus therefore, should not be on sport specific skills that need to be mastered. This is also important but should not be done at the expense of physical literacy, the acquisition of fundamental motor skills, and the enjoyment of physical activity; all of which are fundamental for continued engagement in lifelong physical activity. De Coubertin himself, over a century ago, regarded early specialisation as a hazardous risk to the child's holistic development (Muller, 2004). If that happens, it would result in a huge disservice to students. But why should the aim of PE be *lifelong physical activity*, rather than *sport specific excellence*? This is an ongoing debate as the role of PE has always been 'torn between promoting mass participation and elite performance' (Kohe, 2010, p.481). Actually, achieving both would be the ideal. However, PE professionals have often been accused, and rightly so, that they over-claim the benefits of their subject. Hence, I believe that we should focus on the most important factor, because lifelong activity has an important role in counterbalancing the negative impacts on the health of citizens who are increasingly faced by sedentary lifestyles (Bailey et al., 2009; Najeeb, 2011; Naul, 2008). Such knowledge has led many in the sphere of PE to shift their focus towards the promotion of lifelong physical activity (Trost, 2006). If on the other hand PE focuses on performance and winning, then part of the blame of having sedentary youth is ours. This concurs with Ganzberg's (2008) statement that overemphasis on winning is one of the reasons why children stop participating in sport. According to Binder (2001):

As the pinnacle of elite sport performance in the world, the Olympic Games would seem to be the ultimate example of the competitive model of physical education and, therefore, a hostile context for a physical education program designed to help students feel empowered to follow their own dreams (p.23).

Yet, professionals in the field of PE cannot simply point their fingers at the world of commercial and elite sport, without first turning an analytical eye at the type of PE they themselves are promoting. Hardman (1998) argues that in many parts of the world, children and youths shy away from PE because 'school physical education programmes provide experiences, which merely serve to reinforce achievement-oriented competition performance sport, thus limiting participatory options rather than expanding horizons' (p.16). Therefore, in the words of Penney and Jess (2004), PE should be guided by visions for the future, and:

The visions are certainly about more than lives featuring a specified quantity of a particular sort of activity undertaken at a recommended intensity. Rather, they are about enjoying being active, being able to stay active and lead whatever one views as a healthy and full life... Significantly, these visions relate to a life of learning, not just activity (p.271).

It is for this reason that I have previously agreed with Siedentop (1994) and argued against PE lessons taking the form of repetitive drills related to sport specific skills that are isolated from the real game. It is the complexity and the undetermined outcomes of games and not the repetitive nature of drills that promote fun, and students need enjoyable experiences if they are to continue being physically active. Subsequently, in concordance with Bailey et al. (2009) and Sandford et al. (2006), I believe that the amount of physical activity offered to students is important, but what is more important is the quality of the experience.

If physical educators want to have an impact on enhancing young people's physical activity levels in order to improve their health, then it could be argued that some current practices should be discontinued because they do not appear to 'work' for many young people. Instead, if physical educators were serious about promoting physical activity for health... physical literacy would surely be central to their strategies (Bailey et al., 2009, p.17).

As we shall see however, it is suggested that 'participation in physically active lives is merely one of an array of issues that are seen to be directly relevant to the subject' (Penney & Jess, 2004, p.269), and adapting the way PE is presented can have a major impact upon these issues. Let us not simply focus on the 1st word of the subject (Physical), since the 2nd word (Education) is at least equally important.

The cognitive domain

The cognitive element in PE has been traditionally linked solely with the understanding of sports rules, tactics, and techniques (Siedentop, 1994). Although important, this view is somewhat limited, as the *laboratories* mentioned by Girginov and Parry (2005) have the potential of helping students in developing analytical skills. This does not simply happen by participating in games though, as a well-prepared PE teacher can use such *laboratories* to help students develop the disposition of analysis through self-questioning. Yet, the PE teacher needs to model such questioning. Questions can be simple, like for example: 'Can you explain what is happening in this situation?'; 'Is there a problem?'; 'Can you identify the problem?'; 'What is the best solution for this situation?' Such questions, together with the constant guide of the teacher can help students analyse an experienced situation, ponder over possible solutions, and determine which possible solution is most plausible. When students take their own decisions, they can try them out in practice and re-evaluate the situation. Such reflective processes would be the first necessary step towards developing critical thinking (Attard & Armour, 2006). Such cognitive functioning is needed in everyday life and is part of the *ideal* human promoted by Olympism (Culpan & Bruce, 2007). Critical thinking is an aspect of cognition which is not easily measured, and for this reason many have tended to neglect it. For example, Lau et al. (2004) pointed out that it is not uncommon for parents to argue that PE should not interfere with students' academic examination performance – something that can be measured. In fact:

Some have argued that the push towards examinations and associated academic study in secondary-school [PE] merely confirms the point that engagement with physical activity, by itself, has little or no educational benefit in terms of developing cognition (Bailey et al., 2009, p.6).

In the Maltese education system, PE has traditionally been viewed as a non-academic subject where no intellectual qualities are developed. However, this clearly depends on what we mean by *intellectual qualities*, and what types of intellectual qualities are valued by society. Is it knowledge accumulation? Is it knowledge construction and discovery? Is it the development of critical thinking? The disposition to identify problems, analyse, critically think about possible solutions, and re-evaluation of situations, are cognitive functions that are all needed in everyday life. As a teacher-educator, my aim is to help prospective teachers develop analytical tools: tools through which they can take informed pedagogic decisions; and tools that are also necessary for self-learning. Like Binder (2001), I believe that teachers need to be professionally prepared and need to take professional responsibility in making pedagogical decisions depending on their students' needs. Consequently, I firmly believe that reflective awareness is an important tool both for prospective teachers and for their students in order to be able to construct new knowledge while becoming critical thinkers. Only after developing such cognitive functions can students and prospective teachers begin to critically question social inequalities and understand the need for change. If we fail in doing this, we would be:

Failing to provide young people with the imagination, creativity and vision that will go some way to addressing social injustices through sport and consumerism excesses associated with it. It may well mean failing to assist them to be aware of the conditions associated with sport that limit people's development (Culpan & Wigmore, 2010, p.72).

Understanding that is constructed through such cognitive functioning is deeper and more powerful than simply being exposed to social injustice through a presentation or a lecture. Such an argument also holds for the notions of fair play and ethical behaviour where reflection upon lived experience can be a very powerful teacher that ultimately helps in changing behaviours (Attard, 2007), and 'behaviours so formed then have an intellectual concomitant and a cognitive foundation' (Naul, 2008, p.128). This is the first step for prospective PE teachers in embracing a critical pedagogy (Culpan & Wigmore, 2010).

The social and moral domains

Olympism revolves around many aspects related to the social and moral domains – aspects such as equality, respect for oneself and for others, fairness, cooperation, effort, and reciprocal understanding. Whatever type of sport is engaged in, wherever it is in the world, people will be confronted by questions about what is desirable and undesirable behaviour (McNamee, 2006). It is for this reason that sport and physical activity should be used 'to teach children key virtues, values and beliefs. Value- or virtue-based education is an important aspect of educational development, but its relationship with physical education and sport deserves closer scrutiny' (Kohe, 2010, p.490). Indeed, evidence shows that PE is indeed a major contributor to social and moral reasoning (Bailey et al., 2009; Culpan & Wigmore, 2010; Hsu, 2000). Incidents that students encounter primarily in the *laboratories*, as well as more generally in the sport sphere, should immediately be analysed during PE lessons. This is because issues relating to fair play, corruption, doping, continuous effort to improve, financial interests, and racism amongst others are all directly related to social and moral development. These issues also help students realise the role of ethics in the sports world and beyond. After all, Olympism revolves around ethics; which is a crucial aspect because we want our societies and citizens to be guided by ethical principles. If social and moral issues need to be reflected upon by the students themselves, the cognitive functioning promoted in the earlier section is also valuable in the promotion of social and moral reasoning. Therefore, PE teachers should not mistakenly tackle such concepts by simply trying to fill in the students with factual

and/or theoretical knowledge. Instead, the child's social and moral reasoning should be promoted through the real examples that arise in the *laboratories* of our classes. The teacher needs to ground such aspects in real experience, as this makes learning much more relevant to the individual (Attard, 2012; Culpan & Wigmore, 2010). It is this relevance that can develop what Muller (2004) calls 'the need... for a voluntary commitment and a personal endorsement of fair play (p.11). Also, full immersion by the student in such ethical dilemmas will also mean that students will not only be cognitively involved, but also emotionally involved in the analysis of the situation. According to Binder (2001), such emotional involvement is absent when presenting abstract moral dilemmas that are removed from real-life situations. We thus need to move 'towards a teaching and learning process that is much more complex, that helps young people to explore their emotional as well as their intellectual responses to ethical issues; and that emphasises care and compassion for others' (Binder, 2005, p.13). But why is the understanding of emotions important in moral development? First of all, social relationships and moral conflicts do not involve solely cognitive reasoning, but to a great extent also emotions. These emotions greatly influence our reasoning, and it is through our emotions that we can experience empathy. This is important since empathy helps with critical reflection as it helps us comprehend the viewpoint of other people. But if our emotions influence our reasoning, the opposite is also true; i.e. our reasoning also influences and shapes our future emotions, and this is what moral development is all about. 'Children are not born as little adults. Therefore, it is important to recognise that character development is a maturation process from childhood to adulthood. As young people mature, their characters can be influenced through educational intervention' (Binder, 2001, p.25). Consequently, these are the aspects of Olympism that teachers find hardest to plan, simply because games will not always present the same experiences to everyone. The teacher thus needs to be alert to notice the intricate details of what is going on during the lesson, and highlight anything that can help him/her with promoting social and moral development. Such instances that arise in the *laboratories* are what my colleague so passionately calls *teachable moments*. In the words of Binder (2005):

Every teaching/coaching day is filled with hundreds of instant pedagogical moments. In each moment teachers and coaches have to make an appropriate response. It is in those important instant pedagogical moments, when a teacher or a coach makes a response that inspires, or affirms or encourages or corrects a student or athlete, that they have the opportunity to gently nudge them along the route to fair and ethical living (p.13).

In the majority of cases, teachers need to deviate from the original lesson plan to capitalise on such *teachable moments*. Yet, for this to happen, teachers need to be able to notice, reflect-in-action, and ultimately reflect-on-action so that they better prepare themselves for similar situations in the future. In this way, teachers can indeed shift from *knowledge providers* to *facilitators of learning* (Penney & Jess, 2004). A very important question we should ask ourselves is: "How does involvement in properly planned activities help students develop socially and morally?" Although many claim that this is possible, few have tried to describe what really happens to the child. According to Girginov and Parry (2005):

We do not become virtuous by learning rules. We gain virtue, and hence learn to make right decisions, by cultivating certain dispositions. This is the importance of the education of character, for the acquisition of these dispositions does not come naturally, but must be taught. We acquire dispositions by first of all acting as if we had them – we train ourselves to do the right things, and gradually we gain a standing disposition to do them (p.8).

This is why social and moral development needs to be promoted through concrete lived experiences that might present themselves during PE lessons. Rather than tackling such issues theoretically, teachers need to pick instances through which fairness, respect and other moral aspects can be modelled. Students need to experience different situations and see how they react to them. They, together with the help of their teachers, need to analyse their behaviour and its appropriateness according to ethical principles. The quote above highlights the fact that such dispositions are learned first of all through good example (by teacher or other students). The second instance is the need for the student to understand why such behaviour is desirable. Such understanding could be arrived at through questioning, group reflection and discussion, where instances experienced during PE lessons and instances arising from sport experiences outside of the school setting can be analysed and critiqued by the students themselves. The third instance is when through such understanding the student can train him/herself in reproducing the desired behaviour. In this phase of social and moral development, feedback by the teacher, but more importantly from peers is desirable and important if such dispositions are to become ingrained in the behavioural structures of the individual. Only after these three phases can students gain a standing disposition to do what is deemed socially and morally desirable. However, this is not as easy as it might seem. As previously stated, children do not solely learn through PE, but also from other sport experiences (e.g. personal involvement in sports clubs or as consumers of professional sport). Therefore, although their experiences in PE might be promoting learning in a particular direction, other experiences might be doing the opposite. As Naul (2008) contends:

Children and young people then carry these positive and negative experiences from other areas of life with them when they attend school... If value education in schools and school sport is to be successful it will need to address these outside influences; they must be articulated and weighted in the school. Schoolteachers... should incorporate their pupils' external experiences in and outside sports in discussions of ethics and standards (p.114).

Learning from both formal and informal settings has an impact upon social behaviour and moral decisions in everyday life (Naul, 2008; Binder, 2005). This is why it is necessary to give due importance to tacit learning that goes on in other non-school settings. Teachers need to acknowledge the values and beliefs their students hold, as it is of little use trying to inculcate them with values that conflict with the ones they already hold. The same argument holds for teacher-educators when dealing with prospective teachers.

The complexity of learning in the moral domain is further augmented because moral issues are not black or white but have a lot of grey areas and depend immensely on the interpretation of the individual (Petersen, 2010). For example, I often discuss the interpretation of rules with prospective teachers. The general principle is that rules are there to promote fair play and safeguard performers' safety. One example that commonly emerges is that of the intentional foul in football, and at times I intentionally start the discussion with this quote from Girginov and Parry (2005).

The intentional breaking of a rule in order to gain an advantage is not necessarily 'cheating' as long as the offender doesn't try to 'get away with it'. Sometimes a player may be content to break a rule and accept the consequences, having calculated that this would be to the advantage of himself or his team (p.115).

During such discussions prospective teachers should ask if such behaviour is ethical, and if one is

respecting the opponents' efforts. As a teacher-educator I try not to dominate discussion. Rather, I let students build their own arguments even when I do not agree with certain claims. What I urge them to do is take the viewpoint of various stakeholders. What usually emerges from these discussions is that in a world of sport that is driven by the excessive emphasis on winning, the above argument made by Girginov and Parry (2005) can be seen as natural and obvious. Notwithstanding, as PE teachers, they realise that they need to challenge such taken-for-granted assumptions both on an individual level, as well as with their students. 'Such analysis is essential for challenging students' and educators' perceptions and assumptions' (Kohe, 2010, p.489). One example that cropped up in a recent discussion is the 2010 FIFA World Cup quarter-final between Uruguay and Ghana. In the very last minute of extra-time Ghana were going to score when Suarez (Uruguay) handled the ball over the line to prevent Ghana from scoring and going through to the semi-finals. According to the rules, Suarez was sent-off and Ghana awarded a penalty – a penalty which was missed. On the side-lines, Suarez's reactions to the missed penalty were euphoric, and Uruguay ultimately made it to the semi-finals at the expense of Ghana's progression. Now the question is: *'Can Suarez's behaviour be considered ethical? Can it be considered as fair play, even though he was content to accept the consequences? Can such behaviour be in line with the philosophy of Olympism?'* Different interpretations were aired when such questions were asked but what we must keep in mind is that:

For de Coubertin, whose main aims were educational, the Olympic Games were to be seen as an advertisement to sport and youth, and the athletes participating in the Olympic Games seen as role models for a young generation (Girginov & Parry, 2005, p.146).

Conclusion

The first step is to encourage teachers and coaches to engage in critical analysis of their own experiences and the world of sport. Only later, can they do the same with the children under their responsibility. I believe that having critically reflective and physically literate students is the best way of promoting the ideals of Olympism. Students should be handed the tools to decide for themselves what is ethical or not. This is exactly why I state that such aspects are difficult for the teacher, although central to the educative potential of Olympism. Yet, through proper preparation and proper administration of questioning and discussion of such incidents, the social, moral and ethical learning of the child could be enhanced. In such discussions and modelling of desired behaviour, teachers should give due importance to empathy, as it is through empathy that we can understand the rationale behind what we call ethical behaviour. As Binder (2005) contends, 'children at this age tend to see their world from an egocentric point of view. Games, simulations, role plays etc. provide them with opportunities to put themselves in someone else's shoes' (p.9). It is empathy that helps students better understand why ethical and moral behaviour is desirable.

In conclusion, as a teacher-educator I do not teach specific ways of how to teach the values of Olympism. There is no one correct way. I simply ask prospective teachers to reflect on how they can positively impact the physical, cognitive, social, affective and moral development of the child through their lessons. In this way and with Olympism as an important philosophy for PE, they should continuously strive towards the holistic development of students.

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Section IV

IMPACTING ON PRACTICE... EXPLORING CURRICULA AND PEDAGOGICAL ISSUES IN EDUCATIONAL CONTEXTS

The role of Home Economics in educating for holistic wellbeing: A review of research and practice in Malta in recent years

Suzanne Piscopo, Karen Muglietti, Lorraine Portelli

Abstract

Ever since its origins as a discipline, the primary aim of Home Economics has been to assist individuals and families make effective use of available resources for solving problems, maintaining wellbeing and ultimately improving their and their community's quality of life. This aim is still at the centre of all HE teaching, training and research and is also subscribed to by HE professionals in Malta. Behaviours such as dietary intake, physical activity and other lifestyle and consumption practices play a major role in influencing personal, family and community health in its broadest sense. Understanding what drives choices and practices and how they affect wellbeing are key challenges to society, as are developing effective ways to promote and foster responsible consumption behaviours among diverse learners, whether in formal education settings such as schools, or informal settings such as community groups. Throughout these past 40 years, since the launch of the Bachelor of Education programme, the University of Malta, Faculty of Education's Home Economics (HE)/Nutrition, Family and Consumer Studies (NFCS) lecturers and students have been actively researching just this, looking at personal behaviours, influencing factors and HE-based curricula and educational strategies. This paper presents a review of select research work conducted and supervised in the Maltese context by HE specialists. The studies which form the basis of this review were carried out over the past 15 years as HE-related doctoral theses, or as high quality Master's and Bachelor's dissertations. The review is grouped into three different areas: 1) Research which identified status of behaviours among children, teenagers, youth and adults and then focused on influencing knowledge, attitudes, skills and other factors in the areas of food, nutrition and sustainability; 2) Evaluated class-based or community-based educational interventions with different population groups, looking at both content and pedagogy and the impact of the interventions; and 3) Research on HE curriculum, teacher training, class-based practice and support and links with policies and socio-cultural factors. This review of Maltese studies has served to bring out the complexity of food, health and consumption behaviours and the various influencing factors at different levels of the environment, the value of interventions based on theory and which are targeted to meet identified learners' needs, and how HE curricula and teacher training have developed in relation to contextual changes in society. The review has also shown that HE research can offer evidence in a variety of domains in order to inform curricular decisions in the area and to influence and advocate for effective policies and structures in education, health, family and consumer affairs among others. This is in line with the HE goal of nurturing individuals, families and communities to have the best possible level of wellbeing, whether through individual actions for behaviour change, or through facilitative policies, services and environments. HE programmes and research by the Faculty of Education can continue to have a significant role in this endeavor, locally and internationally.

Keywords: Home Economics; food, health and consumption; educational interventions; curriculum development; teaching and learning

Introduction

From its earliest conception as a discipline, the primary aim of Home Economics (HE) has been to help individuals and families make the best use of available resources for solving problems and maintaining holistic wellbeing (Kieren, Vaines & Badir, 1984; McGregor & Goldsmith, 1998). The ultimate goal is to empower these individuals and families to improve their and their community's quality of life. This HE vision was re-articulated recently by the International Federation for Home Economics (IFHE) in its position statement on HE in the 21st Century (IFHE, 2008). The discipline was described as having three dimensions encompassing various essential features that must be present in any course of study identifying as HE, or practised by any professional identifying as a Home Economist. These dimensions are presented in Figure 1 below and have been central to the development of HE as a discipline and profession in Malta.

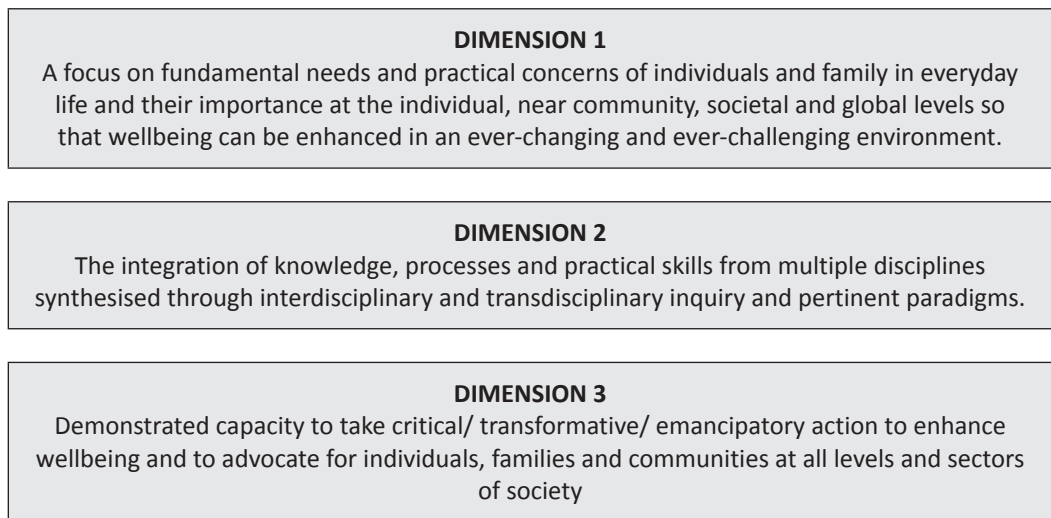


Figure 1. Home Economics dimensions according to IFHE. (Adapted from IFHE, 2008, p.2)

HE has existed in Maltese school programmes for over a century and throughout its history has been closely aligned with the original and contemporary vision of the discipline. This chapter will offer a review of select HE-related research work undertaken in the Maltese context and conducted or supervised by HE specialists from the Faculty of Education (FoE) of the University of Malta (UM) over the past 15 years. It will look at research which sought to identify the reasons behind lifestyle choices and to understand the complex relationships between consumption patterns and health of individuals. It will also describe various interventions organised and evaluated in different settings to help improve knowledge, attitudes, skills and behaviours of individuals and families, with the goal of promoting health or reducing unhealthy choices and behaviours. Finally, it will also look at curricular development in the area and research on pedagogies used in HE teaching and learning.

Lifestyle choices and related knowledge, attitudes, practices and influencing factors

Choices and behaviours forming lifestyle and consumption patterns play a major role in influencing wellbeing and the risk of multiple chronic diseases. Understanding what drives these choices and behaviours and how they affect health are key challenges to society, as are developing effective ways to promote healthier behaviours among diverse population groups. Throughout these past 40 years, ever since the launch of the Bachelor of Education programme, the UM FoE's Home

Economics (HE)/Nutrition, Family and Consumer Studies (NFCS) staff and students have been actively researching just this. This section will highlight results from a variety of studies around health, nutrition, food, consumption and sustainability.

Children and youth

HE professionals typically adopt an ecological systems perspective, taking a critical, emancipatory and practical stance to investigate influencing factors on everyday living as they play out at different levels of the environment and through multiple interactions. This approach was first applied locally in a comprehensive manner in a study by Piscopo (2004), which looked at the various influences on the food intake of 7-8-year-old Maltese and Gozitan children. Using a grounded, mixed methodology approach, 1088 children and 952 parents were first surveyed on foods typically consumed and preferred by children in 10 different home and non-home consumption settings. Subsequently, 30 parent phone interviews and 16 children focus group interviews were used to explore reasons for food provision, intake and preferences. Results were analysed within a socio-ecological framework and influencing factors categorised according to level of the environment. In general, a pronounced Westernisation of Maltese children's diet was evident. Traditional Maltese foods were only predominant in home-based snacks, whereas pizza, pasta and fast-food-type meals were common in different settings. Boys seemed to favour and consume 'heavier' more 'masculine' foods and girls 'lighter' more 'feminine' foods. Children attending State schools tended to consume more meat-based meals, milk and traditional Maltese foods, whereas children attending Independent (fee-paying) schools tended to exhibit more 'modern' food practices based on novel and processed foods. The latter also ate weekday supper with their family less frequently than other groups. Children from the rural island of Gozo placed greater value on dietary balance and quality and freshness of food, and ate their weekday supper with their family more frequently than Maltese children. Emerging as the main gatekeepers, mothers' provision of food for children was based primarily on hedonic and health motives. Strategies used to promote consumption of healthy food included controlling availability, information-giving and being prescriptive rather than restrictive. Overall, both children and parents acknowledged the value of school food rules, although attitudes differed with regard to extent of imposition. Parents also felt that TV food portrayal was a strong influence on their children's food requests, as was to a lesser extent modelling of food behaviours by peers. Children's knowledge of the health value of food was good, though a few misperceptions existed (e.g. positive health value of 'milk' chocolate) and certain food associations were barriers to intake (e.g. that wholegrain foods were for elderly, sick people). Sweet taste, juicy and crunchy texture, small ball-like shape, convenience and healthfulness were key attributes which attracted children to food. Piscopo concluded that local nutrition education interventions need to target the different influences on Maltese children's food intake functioning at the different ecological levels in order to improve potential for effectiveness.

A study with slightly older children (Sammut & Sammut, 2014) looked at the foods consumed by secondary school boys during school hours with a focus on packed lunches and tuck-shops. Slightly over 600 Form 2 (12-13-year-olds) and Form 4 (14-15-year-olds) boys attending State and non-State schools in Malta and Gozo were surveyed and 4 focus groups were also held. A vast majority of the boys said they always brought a packed lunch with them to school, yet very few replied that they prepared their own packed lunch, with no difference between Form 2 and Form 4 boys. Most respondents replied that their packed lunch was prepared that same morning. White bread was by far the most common ingredient consumed during school hours, whereas the most popular fillings were sliced ham, sliced cheese, *ġbejniet* (cheeselets), tuna, sliced chicken and ricotta in that order. Lettuce and tomatoes were also often included. The most

commonly consumed fruits were apples and, to a lesser degree, bananas and oranges; whilst the most consumed drinks were water and, to a much lesser degree, white milk and soft drinks. Four out of five boys replied they bought food items from the on-site school tuck-shop; yet only around one in ten said they did so daily. The most popular food items purchased from the school tuck-shops were pizzas and bread items, with results also revealing that these shops sold a wide variety of food items high in salt, sugar and fats. Different justifications were given by the boys for opting for tuck-shop food at school. The majority replied that they wanted to choose what they ate to gratify their desires; a few said they did not have enough time to prepare a packed lunch at home; very few replied that the foods available in tuck-shops tasted better than home-sourced food. Students who opted to get their lunch from home argued that breaks were too short and they did not want to waste time queuing to buy food. Others were also sceptical of the freshness and safety of the food sold in tuck-shops, being somewhat wary of hygiene standards. Some students explained that they also bought foods from the school tuck-shop, despite having their lunches, because they saw their peers eating other desirable food items. Notably, a good number of students acknowledged that buying food from the tuck-shop everyday would become quite expensive for them. Various influential factors were uncovered in this study, justifying the value of using evidence to inform policy around school food provision.

In 2011, Borg Mifsud conducted a study on barriers and motivators to healthy eating among Maltese post-secondary 16-17-year-old students. A grounded theory model was constructed which portrayed that influencing factors worked within three overlapping spheres: physiological, psychological and socio-ecological. Results showed that, overall, barriers predominated. Physiologically, it was the power of unhealthy foods' organoleptic properties which mainly motivated adolescents to consume these foods. On the other hand, there was a lot of interaction of factors in the psychological and socio-ecological spheres. Unhealthy foods were perceived as good value for money, fast in both purchase and consumption, and unavoidable due to peer pressure and conformity, such as fast food outlets being perceived as fashionable hangouts. Adolescents also felt they had minimal food preparation skills, were surrounded by marketing for unhealthy foods and that there was a predominance of unhealthy food availability, especially at outlets patronised by adolescents. They particularly lamented the prevailing attitude that, due to food cosmopolitanism, McDonaldisation and globalisation, unhealthy, fast, convenient foods were seen as a necessity in modern lifestyles. They also lamented the rise of a nouveau, less healthy, Maltese cuisine instead of preservation of the healthier traditional cuisine. The few motivators for healthy eating which emerged from the study could be grouped under the power of self-efficacy, where food preparation skills and the ability to reject pressure from peers to eat less healthy food or to conform to gender-based expectations were seen as indispensable to healthy eating. The mother was considered as a positive influence at home, creating a food environment conducive to health. Concurrently, however, the adolescents despised and defied any form of healthism. An over-riding belief by the adolescents was that leading a student life impeded them from eating healthy, although they also felt that ultimately it was up to their self-control. Borg concluded on the value of grounded research and by advocating for appropriate lifeskills education for students at post-secondary level.

Adults

Given that marriage is often considered a stage in life when food behaviours may change, Muscat (2011) studied negotiations affecting food choice, food portion sizes and daily balanced meals consumption among Maltese newly-weds. Using a case study approach with 7 childless couples, interviews and food diaries revealed various practices pre- and post-marriage. In general, the new husbands' diet improved nutritionally through an increase in vegetables, milk and milk

products and a decrease in red meat and sugary foods. But they also reported a decreased fruit intake compared to pre-marriage. In contrast, overall, new wives tended to show a decrease in nutritional quality of their diet with a higher intake post-marriage of red meat and sugary, fatty and oily foods. Some females also decreased slightly milk and milk products consumption. This nutritional decline was offset partially by a reported increase in vegetable consumption. Some couples reported more balanced average daily servings of the major food groups post-marriage; yet general consumption of vegetables remained low compared to the World Health Organisation recommendation of a minimum of 3 servings daily. Perhaps not unexpectedly, food provision was a gendered role among newly-weds, with the female predominating. Factors shaping the couples' food choices included prior family food habits (e.g. women carried forward recipes from their families), the couple's initial dietary congruity/incongruity, valuation of eating a proper meal together, accepting 'partner food', health beliefs and weight attitudes (post-marriage congruity in health and weight beliefs helped for smoother negotiations), money and facilities available, culinary skills and knowledge, commensality (who they ate with) and contextual aspects (many ate the evening meal in the kitchen with the TV on, though this was not always a shared decision). Sources of conflict were mainly related to food preparation tasks, initial dietary incongruity and commensality circles. Selective food individualism (eating what they preferred was mainly done when dining out and when not eating with partner) and acknowledging partner foods were readily used by some couples to avoid food choice conflicts. Money was not a main influencing factor post-marriage, though wives were more cautious, especially when it came to dining out. In merging two food systems into one joint system, the most significant food choice value for wives was health and for husbands it was variety. When problem-solving, husbands tried to avoid unhealthy habits, or tried new foods to please their wives; wives conceded to unhealthy habits proposed by husbands when they were tired and/or time was a barrier. Food projects, often directed by the wife, were common in the early stages of marriage, being linked to perceived deficiencies or excesses in the partner's diet. Joint planning of varied and tasty meals emerged as an effective strategy to avoid food conflicts. This study served to describe the realities of newly-weds' diets, highlighting how certain negative behaviours could be pre-empted by better pre-marriage education and guidance.

Looking beyond couples, influences on the planning, preparation and consumption of the main weekday meal among families with primary school-aged children was the phenomenon of interest in a study carried out by Zammit (2011). A socio-ecological framework was again adopted with the multi-step study involving 8 interviews followed by a survey with 400 adults, results of which were then elaborated upon in 3 focus groups and 4 phone interviews. The gendered role of meal provision also emerged in this study, mainly being the mother's responsibility. Indeed, the mother heavily influenced the type of meals offered based on her perception of food, health and convenience, her hygiene standards, perceived and perpetuated gender roles, and perceived and actual/allowed role of husband and children in meal preparation (e.g. children's age determined their involvement in meal preparation). Family food preferences, especially children's (and their pickiness), and practices such as family schedules and commitments, eating out and TV viewing, were also strongly influential. Parental employment differentiated families, where employment of the main food provider impacted perception of convenience, meal planning strategies and type of meal prepared. Employment schedules of family members were a major barrier to eating a meal together as a family. Television advertising (mainly through children making food requests), availability and accessibility to food (e.g. seasonality impacting on meals prepared due to fresh produce availability), traditional cuisine interest, and cultural norms and religious practices were influential, but to a lesser degree. This study offered ample evidence as to the complexity of influences on family meals, thus suggesting areas for potential intervention to facilitate greater provision of family meals.

Food waste was the theme of another socio-ecological study (Attard, 2016) which explored Maltese households' food waste during meal planning (including purchase and storage), preparation and consumption. A survey with 400 adults, one focus group and 10 food waste diaries offered insights on the various related practices and influences. Households in the study threw away an average of 3.8kg of food waste weekly. The majority of main meal providers had a restricted view of what comprised food waste, often citing inedible food as food waste and forgetting the disposal of edible, spoiled and expired food. They also excluded composted food and food fed to animals. This lack of awareness contributed to wastage through creating a false sense of complacency that they were already doing their utmost to avoid waste and could not do more. Despite this misperception, main meal providers frequently engaged in food waste reduction behaviours, such as checking what was available at home prior to shopping, not going shopping with children to avoid impromptu food requests, using written or mental shopping lists, purchasing fresh food, avoiding purchase of food which was close to expiry, blemished or had damaged packaging, avoiding unnecessary bulk purchases, purchasing the amount of food needed, and purchasing perishable food towards the end of the shopping trip. At home they planned meals, used food in the first-in-first-out order, used expiry dates and sense perception to determine food edibility, prepared the correct food portions, and refrigerated and reused leftovers. Factors which facilitated food waste reduction and which tended to emerge in households with older adults included exposure to agricultural experiences through farming and food production, memories of long hours of toil in fields, and the importance given to food waste reduction, sometimes as a result of feelings of guilt around ethical issues, religion and stories of wartime hunger. Overall, barriers to household food waste reduction included a fixed repertoire of recipes, generational loss of valuation of food, fear of food poisoning, illiteracy, lack of knowledge, skills and experience in food shopping, planning, storage, cooking and using sense perception, the need to make extra effort in food planning and preparation, changes in household members' appetite and preferences, the presence of children, busy lifestyles, lack of communication between family members, and having pets which consumed leftovers. This study provided in-depth knowledge on food waste influences and behaviours which could help design appropriate public campaigns on reduction of food waste.

An effective vehicle for reaching the public is social media. To this effect, a study by Spiteri (2016) used netnography, a survey with 382 adults and 10 interviews with active foodies to explore how Maltese-centric food-related Facebook groups and pages were influencing Maltese millennials' beliefs and behaviours in relation to food, eating and health. Results showed that women aged 25-34 years of age were the majority participants in the online food communities studied, and most of the survey respondents accessed online food communities on a regular basis. Trustworthy food-related information and easy access to locally-based recipes were key motivators for liking or becoming members of particular online communities. The actual content posted in these communities and who posted it influenced different aspects of a food experience, though only about one third of the surveyees changed their opinions and behaviours immediately after reading particular posts. Posts including pictures, photos and videos were the ones which generated the most traffic and engagement. Information posted by individuals from a professional background, including persons hailing from educational and medical health care backgrounds, was often not heeded. In contrast, group members were more likely to join in discussions started by micro-celebrities and/or the other lay people in the group. Moreover, most members were not appreciative of constructive criticism as a means to improve sensory characteristics or nutritional status of dishes prepared, or any other 'educational' comments. The topics of food waste, food affordability and food budgeting were typically controversial topics which gave rise to negative sentiments. Indeed, the majority of millennials considered online food communities as providers

of entertainment and information nuggets. Facebook posts assisted people to become aware of novel ingredients, alternative ways of using ingredients, possible recipe modifications, different cuisine recipes, as well as proper or new cooking techniques, among others. Survey respondents felt that information about nutrition and environmental or other sustainability issues did not influence their choices; though posts did encourage them to buy healthier foods and help them increase usage of cheaper ingredients. The major barriers to implementing learnt knowledge in everyday life included limited time for food preparation, family food preferences and lack of recipe ingredients in local food stores. Millennials did not regard financial resources as one of the major barriers. It is clear from this study that social media is an alternative route for 'educating' adults about healthy eating, though one would need to be sensitive to the desirable features of the medium and the message as perceived by the potential target audience.

This section has offered an overview of the complexity of food perceptions, choices and behaviours among different Maltese population groups. The various studies offered evidence for recommendations related to potential actions by educators, health promoters and policymakers. Mothers and wives as main food gatekeepers, grandparents as transmitters of food traditions, young people and young families and their time-strapped lifestyles increasing reliance on processed foods, the general interest in food healthfulness and diet and health, the seemingly low salience of food cost in food choice decisions, the necessity for competency in food knowledge and skills, valuation of food and in particular food waste, and the usage and impact of online food communities were findings which offer a rich description of contemporary foodways in Malta. The next section will highlight how some of these findings have already been considered and acted on in subsequent studies.

HE education Interventions

HE has always had an action orientation with the goal of facilitating behaviours that foster wellbeing via personal, public and business practices and initiatives. In keeping with this orientation, throughout the years there have been several interventions carried out in Malta as part of Doctorate, Master's and Bachelor's level research. Many focused on the design, implementation and evaluation of health, diet or nutrition education programmes. A number of these studies will be presented here, showing how interventions have impacted on dietary habits, or have been of pedagogic support to HE teachers.

Community interventions

Attard Mintoff (2011) carried out a short-term impact assessment of a pilot nutrition education course promoting the Mediterranean Diet (MD) among a group of healthy Maltese adults. Similarly, Ragusa (2017) promoted the MD through a community outreach initiative also involving a short course with the goal of helping participants adopt a healthier lifestyle. In both instances, some form of needs assessment was carried out, as well as pre- and post-intervention assessments. Attard Mintoff (2011) adopted a quasi-experimental design with an Experimental and Control group. The study involved 60 adults and data was collected via questionnaires, 24-hour dietary recalls, one-to-one interviews and anthropometric measurements to better tailor the content and pedagogy of the intervention and assess its impact. Participants took part in a 3-session educational intervention which justified the health benefits of the MD and offered practical skills for following this diet. The sessions utilised behavioural change theory concepts to try to modify the influencing factors leading to less healthful behaviours. Intervention activities dealt with promoting positive health behaviours, overcoming barriers to change, and coping strategies for maintaining positive behavioural change. Course attendees participated in discussions, group work, sensory analysis and critical thinking. They were also provided with informative take-

home material, a helpline and free food to use as ingredients for making healthful dishes at home. Telephone interviews conducted a few weeks after the course finished indicated that the intervention had brought about greater positive knowledge, attitude and behaviour changes in the Experimental group compared to the Control group with regards to healthy eating and to a lesser extent physical activity. Both instrumental and motivational knowledge were needed to bring about this positive change, helping participants enhance intrinsic motivation, self-efficacy, intention formation and ultimately goal-setting. In turn, these helped foster a positive change in attitude, leading to changes in behaviour, amongst which were increased food label reading and consequently healthier food choices and a reduced energy intake. As a result of the energy intake decrease and a slight increase in more regular physical activity, these adults' anthropometric profile also improved. Interestingly, Ragusa's (2017) similar smaller-scale study with 24 adults also found that at 7 weeks after course completion participants had increased their vegetable, legumes and fruit intake and decreased their salt intake. Both the Attard Mintoff and the Ragusa studies confirmed earlier studies (Piscopo, 2009) that if well-planned, audience-sensitive educational sessions are organised, MD interventions can be successful in promoting health.

In another study with adults 35-55 years of age from a rural village in Malta, Cachia (2017) assisted adults to boost nutrition knowledge, healthier eating habits and an active lifestyle in order to reduce their and their family's risk for different diseases and improve their quality of life. Cachia (2017) also designed, implemented and evaluated a multi-phase study: a needs assessment questionnaire which provided relevant information for the course, a pre-test followed by 4 nutrition education sessions and a post-test to assess the immediate impact of the intervention, and telephone interviews 8 weeks later to assess the short-term impact. Results indicated that if administered effectively, constructivist pedagogies can help change behaviours. At baseline, the 10 course participants already had a substantial amount of correct nutrition knowledge, yet lacked skills to transfer this knowledge into practice. Simultaneously, they did not have the will to utilise this knowledge so as to help themselves adopt a healthier lifestyle. As the nutrition course progressed, it motivated the individuals to take action; they were eager to acquire new knowledge and updates and apply this to everyday food choices. The social interaction among the participants also created an environment conducive to learning, with participants sharing ideas and cooperating during the discussion and hands-on activities. The final assessment revealed that participants were much more informed and empowered to opt for healthier food choices to help achieve an improved health status.

Empowerment was also central to Scicluna's (2011) study which involved an intervention with the goal of promoting bone health and preventing osteoporosis among female adults. The intervention was guided by social marketing principles and strategies (Lee & Kotler, 2011) and had two phases. The first phase consisted of general awareness-raising about osteoporosis in a popular local supermarket. This was done using a strategically placed pop-up stand with several informative resources and opportunity for discussion, and aimed to reach as wide an audience as possible. A total of 113 stand visitors completed a pre-test and a post-test questionnaire onsite to assess their knowledge, attitudes and beliefs in relation to osteoporosis. An immediate improvement was recorded in desirable responses; in particular, misconceptions and unfounded fears around the health value of milk and dairy products were clarified. Food label reading skills were also strengthened. A voluntary yet purposive sample was then recruited from this phase one group to participate in phase two, which consisted of a tailored intervention of three 90-120 minute educational sessions. Thirty-four participants attended the sessions comprising various learning activities which promoted behaviours to help prevent osteoporosis and where the teacher guided the decision-making and self-motivating process. Evaluations conducted

immediately after and a few weeks after the end of the mini-course proved its success since all participants felt empowered to put into practice the knowledge gained. They had engaged in one or more positive behaviours as a result of what was promoted in the sessions, such as consuming a diet rich in calcium and Vitamin D, reducing alcohol and high-caffeine drink intake, doing weight bearing exercise and quitting smoking. Scicluna concluded that the targeting of the messages was key to the intervention's success.

Another highly targeted study by Caruana (2016) aimed to reveal the current local situation of home-produced meals among families comprising working parents and school-aged children and then to offer training to meal producers based on the concept of the 'community kitchen'. A baseline survey via questionnaire was conducted with 250 adults in order to gather data about attitudes and food purchasing and preparation skills. Focus groups were then used to gain more in-depth knowledge on home-produced meal preparation experiences, as well as barriers and motivators frequently faced by the meal producers. Eventually, two 5-session courses (a beginners and advanced version) were developed according to the needs of the volunteer participants. Baseline results revealed that parents' participation in the labour force did not directly influence the extent to which home-produced food was being served at table. Time deficiency in general dominated the list of barriers towards home cooking, often resulting in a high reliance on convenience food. Indeed, negative family feedback seriously demotivated meal producers, leading to less home-produced meals and less creativity in cooking. Congruently, process evaluation during the course showed that participants, especially those with lower self-efficacy, were sensitive to family members' reactions to home-cooked dishes. Hence, their continuous resistance towards new recipes suggested during the course and inclusion of innovative ingredients. The course did have some success however. A short-term impact evaluation confirmed that being knowledgeable about food and having peer encouragement are positively linked to increased responsibility for home-produced meals, more use of home-grown food, more experimenting in the kitchen, less use of convenience foods, a wider repertoire of recipes, competency in modification of recipes, healthier cooking methods and, consequently, healthier family meals.

Zammit (2016) conducted a community intervention similar to Caruana's (2016), but with a focus on food label literacy. The study sought to obtain data on the knowledge, attitudes, behaviours and skills related to food labelling among parents of young children who were also the main family food providers, and then to offer a mini-course building on the results. The first phase comprised a survey by questionnaire with 250 parents. The second phase was a tailored course for mothers (who had emerged as the main food gatekeepers), which included focus group interviews with a sample of the prospective participants, followed by 4 educational sessions, one set in Malta and one in Gozo, with 15 to 20 participants in each. Telephone interviews conducted a few weeks after the course had ended served to gauge its effectiveness, in particular the participants' willingness to put learnt skills into practice. Results showed that food label literacy is a very complex psychosocial phenomenon. The mother's familiarity with food labels and knowledge of their meaning and use was more likely to improve her and her family's acting on them. Yet time emerged again as a persistent barrier, in this case with respect to food label use, with many mothers reporting time as a 'cost'. Other barriers included size and design of labels and the mother's brand loyalty working in parallel with label repertoire and food repertoire. The course impact assessment revealed nonetheless that adult education can be a powerful tool for enhancing food label literacy, especially improving self-efficacy as a first step to behaviour change.

Class-based interventions

Whilst several HE community intervention studies have been carried out over the past decade,

pedagogic interventions in the classroom setting have been less frequent. Mugliett (2009) carried out seminal research which aimed to raise Maltese HE teachers' awareness and sharing of knowledge on the benefits of technology enhanced learning, to support teachers in integrating technology in class as an effective pedagogic practice, and to encourage them to make use of innovative pedagogies. The study was divided into three main stages: the initial stage which involved the design, planning and implementation of an online learning network developed in the form of an online community; the project stage where a 6-month professional development exercise was conducted to phase in technology as an effective pedagogy for teachers; and the final stage where data was collected and analysed through three different tools, namely, a questionnaire to all participants, online discussions and interviews with a small number of teachers. Rogers' (2003) theoretical model on the diffusion of innovation was adopted as a framework for the study. The eLearning platform was used with 51 HE teachers from Malta and Gozo and helped them experience effective ways of integrating technology in the HE curriculum. It served as a virtual staffroom where the participants disseminated and saw good practice. It also included isometric tasks: Teachers were asked to share, collaborate and try examples of technology enhanced learning in nutrition classes which were being built and exposed purposely for this eLearning project. The findings show that the participants' knowledge relating to the positive use of technology was enhanced. They also gained confidence in the use of technology through sharing of ideas, online feedback and exposure to a community which brought teachers together. The findings further revealed that when an innovation is being diffused into set practice what teachers need most is the 'how-to' knowledge for actual implementation of the new practice.

The above review underscores the requirement that health and nutrition education intervention design and implementation has to be specific to the target audience to increase likelihood of success. Positive results were obtained from the evaluations conducted, yet one must acknowledge that the short duration of some of the interventions was a limitation to assess true sustainability of impact, especially on behaviour. Whatnall et al. (2018) state that brief interventions are effective in improving health behaviours. Additionally, a systematic review by Murimi et al. (2017) outlined factors which contribute to the efficacy of nutrition education interventions in promoting behaviour change for optimal health. These included, amongst others, interventions that last ≥ 5 months, have ≤ 3 focused objectives and use appropriate design and theories. The importance of implementing nutrition education which is sustained and which is based on theory has also been recommended previously (Contento, 2011). It is clear that the studies in this review of Maltese HE interventions were on the right track.

HE curriculum development, teacher training and related research

In Malta, the HE national curriculum has generally been developed through the State Education authorities and more recently has had strong links with the syllabus for the Matriculation school leaving examination organised by the UM. HE at tertiary level was originally based at a specialised teacher training college and later moved to the new education-focused Faculty at the UM where it has evolved over the years. This section will briefly outline the trajectory of HE curriculum development and teacher training in Malta during the past century and a half, as well as present some recent studies on curriculum implementation.

Historical background

HE and Textiles Studies (TS) as school subjects have a long history in Malta, dating back to the mid-1800s (Portelli, 1996; 2009). Needlework (NW) was the first of the two subjects to be included in the curriculum of primary schools, reflecting what happened in Britain where NW

has been identified as ‘the oldest domestic subject’ (Sillitoe, 1966, p. 186). In turn, the earliest evidence of the teaching of Domestic Economy (name for HE used at the time) in Maltese secondary schools goes back to the 1920s when the subject formed part of the curriculum of female students in their final year. The setting up of the Central Housecraft School in Floriana in 1931 was another milestone in the teaching of HE. Its curriculum was based on domestic subjects and initially catered for female primary school students and later for senior secondary school students. When Maria Assumpta Girls’ Secondary School was established in 1959, HE and NW featured prominently having specialised teachers and well-equipped rooms (Portelli, 2016).

In the latter half of the 20th century and early 21st century, HE and TS in secondary schools continued evolving, but taking different paths. For a period in the 1970s and 1980s, HE and NW were offered jointly to females as areas of specialisation from Form 3 (13-14 year olds) upwards. TS was eventually offered as a separate specialisation subject in preparation for the SEC, although it was much less popular than HE. Eventually, HE stopped being compulsory for females in Forms 1 and 2; it became optional and started being offered to males as well in 1992. The number of male and female students increased throughout the years and this is evident from the number of students sitting for the Secondary Education Certificate (SEC) Examination in HE and for the Intermediate and Advanced Home Economics and Human Ecology examinations (UM, 2017). TS was never offered as a separate subject beyond secondary level, but integrated with HE.

With respect to teacher training, initially Housecraft (later referred to as HE) was not offered as a subject of specialisation for prospective teachers at the *Mater Admirabilis* Training College for Women Teachers (Portelli, 2016). It was offered for the first time in 1960 together with Needlecraft. In contrast, both subjects featured in the first prospectus of the FoE at the UM when the Faculty was established in 1978 (Portelli, 2016). Students could pursue tertiary studies by reading for a BEd (Hons) Home Economics, which in 2006 changed its name to BEd (Hons) Nutrition, Family and Consumer Studies (NFCS). HE and TS study-units were included in these degrees. In 2008, the M.Ed. Health, Family and Consumer Studies was launched which provided further professional development in the field with a focus on scientific content, health promotion and evaluation, new pedagogies and research. Most recently, in 2016, a BSc (Hons) in HE was introduced by the FoE to replace the previous BEd (Hons) teaching degree. The aim of this current degree is to provide training, support, and leadership for the development of professionals working beyond the classroom setting. It offers a basic grounding in HE content (incorporating core elements and specialisation in one of Health and Consumer Studies or Textiles, Fashion and Interior Studies) and a community outreach and entrepreneurship orientation. It can lead to further studies in related degrees, such as family, youth, elderly and disability studies, creativity and innovation, or the new Masters in Teaching and Learning in HE or in a number of vocational subjects including Health and Social Care, Textiles and Fashion, Hospitality and Hairdressing and Beauty Therapy.

Research on curriculum and teacher training

Since the year 2000, the Maltese education authorities have published a number of policy documents which had an impact on the curricula in schools, namely *Creating the Future Together – The National Minimum Curriculum* (Ministry of Education, 2000), *A National Curriculum Framework for All* (Ministry of Education and Employment, 2012), and recently *My Journey – Achieving through different paths* (Ministry of Education and Employment, 2016). These documents played an important role in influencing the style and structure of the HE and TS curricula as implemented in schools, including the pedagogies used by teachers and their interpretation of the newly modified curricula to meet the recommendations suggested by these documents. Given these recent changes, this review will focus on studies which offer a socio-

historic background, or whose findings are still applicable to current HE and TS teaching and learning.

Research conducted by Portelli (2016) examined the curriculum history of HE and TS in Malta from 1960 to 2010. This study adopted a social constructionist perspective focusing on the development of the micro and macro level of the curriculum of both subjects in a period during which many changes occurred in the Maltese social, political and economic scenes. The academic, utilitarian and pedagogical traditions identified by Goodson (1993) were analysed in relation to the changes in status of the HE and TS curriculum. This multi-dimensional study took an insider perspective and included life-history narratives with the key individuals who played an important role in the discipline locally, semi-structured interviews with various individuals linked to the learning or teaching of HE and NW/TS, focus group discussions with a group of young teachers, and archival research on what spurred the curricular changes that occurred over time. The findings revealed that a number of factors led to the current status of HE and TS, mainly the relationship between school subjects' patterns of status and resource allocation (budgetary priorities by the Department of Education or school management), the challenges posed by other subjects (many more subjects for students to choose from for specialisation), the gendered nature of the subjects (societal female association), the issues regarding name change (lack of continuity), the development of the curriculum and role of examinations (non-examined in Junior secondary), and the career prospects of those involved in the learning and teaching of HE and TS (uncertainties / lack of familiarity especially outside the educational sector). This research is of great importance as it documents the history of HE in Malta, offering insights on related factors of past and future relevance.

One factor that had an impact on HE recently was the launch of the new National Curriculum Framework (MEE, 2012). As a result, HE was designated a core component within the Health and Physical Education Learning Area and in scholastic year 2014-15 became an entitlement for all Form 1 (11-12-year-olds) and Form 2 (12-13- year-olds) students attending State Middle schools. A dissertation by Vella (2016) aimed to shed light on this new provision, looking at HE Teachers' perceptions, pedagogies being used and the experiences of students now taking HE as a compulsory subject. Furthermore, since the subject was taught in co-ed Middle schools, the study also examined whether subject teachers utilised gender-sensitive pedagogies. Data was collected through questionnaires completed by 82 Form 1 students and testimonies of 8 HE teachers representing different colleges in Malta and Gozo. Prior to data collection, Vella analysed the National Curriculum Framework and uncovered how HE was deemed an important component for inclusion mainly due to various health problems associated with inappropriate lifestyles, such as excess weight among Maltese school-aged children. The related increase in the practical component in the new syllabus for Form 1 improved the constructivist alignment of learning; however, the students' experiences were highly dependent on the teachers' vision and their pedagogies, and this varied by school. Of note is that the practical component was a determining factor in the students' positive attitude towards the subject. In turn, the assessment mode was key for the teachers who were interviewed. They felt that as the subject was not examinable, assessment focusing on tasks and practical work was more demanding. With respect to gender, a large number of interviewees remarked that co-education also served to enrich HE lessons. This study's value lies in the fact that it examined the experiences of the first groups of Maltese State school students who were studying HE as a compulsory subject in a mixed-gender class.

To the chagrin of HE professionals, HE has always been considered a female-oriented school subject locally (Portelli, 2016). Three recent studies by Farrugia (2016), Buttigieg (2017) and

Degabriele (2017) addressed this perceived gendered nature of HE. Farrugia's (2016) study investigated the gender dynamics in the choice of HE as a subject for specialisation in Form 3 (13-14 year olds), looking at information given to students by their Career Guidance teachers and analysing parental involvement in the Option choice decision. A study conducted by Zahra (1996) 30 years earlier had found that females chose HE for its domestic use, while males chose it in relation to career prospects. Farrugia wanted to find out whether students still had the same reasons for opting for the subject since the HE curriculum of the early 1990s focused more on activities related to the home than on skills related to specific careers (Portelli, 2016). Farrugia also noted that the gender divide was still evident in the national examination system: in 2015, a total of 804 students applied for the HE SEC exam, 237 of whom were males and 567 were females (UM, 2015). To collect data, Farrugia conducted a survey by questionnaire among a sample of 217 male and female Form 3 State, Church and Independent school students and also held structured interviews with three Career Guidance teachers from the participating schools. Analysis of the data revealed that female students' reasons for opting for HE had changed, revealing an interest in teaching and in vocational- and childcare-oriented careers. In contrast, the reasons for male students choosing HE had remained the same as in Zahra's study, being focused on careers related to the hospitality industry. In general, Farrugia found that although students were assisted to make informed decisions at school, other forces apart from Career Guidance teachers also influenced subject choice. It was suggested that shifts in Maltese society in favour of further inclusion of females in the workforce could have played a role in shaping the changing aspirations of female students for their future careers and, consequently, the value of HE increased since it became regarded as useful for specific careers and professions, rather than just for life skills and restricted to the domestic domain.

The introduction of co-education in Maltese secondary schools also enticed Buttigieg (2017) to compare the effectiveness of the HE curriculum and pedagogies used in a single-sex and a co-education class setting. The study investigated whether the HE curriculum used in State secondary schools between 2015 and 2017 was appropriate for Form 3 co-educational classes. Buttigieg also delved into the types of pedagogies that were used by HE teachers with the single-sex and co-education classes of these 13-14 year olds. This study used a qualitative approach, collecting data through 6 semi-structured interviews with teachers of boys', girls' and mixed-gender classes. Nine observation sessions were also carried out. Buttigieg uncovered that the HE curriculum was relatively gender-fair when it came to integration of all students in learning activities, although improvements could be made. Interviewed teachers suggested that some topics that were gender-neutral could be reintroduced in the HE curriculum (such as the Preparation of Breakfast, previously in the Form 1 syllabus), while topics perceived by society as gender-specific (such as Childcare) should be removed. The study concluded that it was the responsibility of the teacher to deliver the curriculum in a gender-fair manner through the use of appropriate pedagogies which fostered inclusivity.

The issue of gender was tackled differently by Degabriele (2017) who focused on the professional perspectives of male HE teachers. The main aim of this study was to understand the challenges faced by males as HE university students and during their teaching career. This study was innovative in that there was no prior research on this topic in Malta; specifically the experiences of males teaching a subject mainly dominated by females. Degabriele used a qualitative approach, including unstructured interviews with 4 male HE teachers who had 4 to 8 years' teaching experience. The small size of the sample was due to the fact that till then only 7 male HE teachers had graduated from the UM BEd (Hons) HE/NFCS degree. Of these, 2 were not eligible to participate in this study as they did not pursue a teaching career. The findings indicated that

male HE teachers were passionate about their subject and were always accepted by students and their parents. Their relationships with colleagues and lecturers were generally good; however, some participants did suffer disrespectful comments by non-HE University lecturers or by female colleagues who were not in favour of a male presence in a female-dominated curricular field. This study showed that whilst HE's gendered image is slowly dissipating in Malta, societal gender stereotypes still persist, especially as linked to different jobs.

As a result of the new national curricular thrust, in the scholastic year 2011-12, the Education authorities introduced a number of vocational subjects as a pilot project in a few State, Church and Independent secondary schools. This motivated Tabone (2013) to conduct a study on the experience of Form 3 students selecting the HE and Hospitality (VET subject) dyad as an Option choice. Tabone worked with three schools, distributing 78 questionnaires to Form 3 students who had opted for the dyad and conducting interviews with 6 teachers of Hospitality and of HE. Data was analysed using Layton's (1973) and Goodson's (1983) research on the introduction and establishment of new school subjects in British schools and results showed that, in general, the main stakeholders had positive feedback on the introduction of Hospitality for Form 3 Maltese students. The diverse syllabuses and pedagogies were key to this finding, as teachers followed a Business and Technician Education Council (BTEC) syllabus for Hospitality and the Maltese SEC syllabus for HE. Tabone also found that the introduction of Hospitality in schools followed similar stages to those observed by Layton (1973) and Goodson (1983) for new subjects, especially the overwhelming dedication and enthusiasm showed by the teachers and the interest of the students in the new subject. Notably, the introduction of Hospitality did not impact negatively on HE. In fact, students opted for both subjects as they saw their complimentary relevance to a career path in the hospitality industry. A primary implication of this study's results is the need for teacher training to ensure valuation and distinction between pedagogies and assessment for the two school subjects HE and Hospitality.

The above few studies underscore that there is still a paucity of research on the interpretation and implementation of the HE curriculum locally as it plays out within the larger national curriculum and social context. HE is a very dynamic curricular subject due to its sensitivity to societal changes, not only with respect to content – knowledge and skills – to be taught, but also how society perceives certain topics, their need and their gender connotation. As also previously recommended by Piscopo and Mugliett (2012), the subject merits ongoing research in order to refine its curricular focus, pedagogies and assessment and thus better prepare young people for their various roles in adulthood, be it as a consumer, employee, employer or family member. Research can also help improve professional capacity-building and public and policymakers' understanding of HE, and so strengthen the subject's standing in the curriculum, as well as enhance career prospects of students.

Conclusions and Recommendations

This review of Maltese studies has shown that HE research can offer evidence in a variety of domains in order to inform curricular decisions in the area and to influence and advocate for policies in education, health, family and consumer affairs among others. This is in line with the HE goal of nurturing individuals, families and communities to have the best possible level of wellbeing, whether through individual actions for behaviour change, or through facilitative policies, services and environments. Indeed, the recent OECD (2018) report on 21st century skills to help achieve the Sustainable Development Goals resonates positively with HE education as it is being designed and implemented in Malta. Piscopo (2015) has shown that HE has the potential to efficiently bridge the knowledge-practice gap for establishing sustainable lifestyles

and Mugliett (2009) has shown that honing teachers' skills for effective practise of new pedagogies in the classroom is possible. Moreover, local HE teacher training aligns comfortably with the orientation being given internationally (Janhonen-Abuquah, Posti-Ahokas & Palojoiki, 2017) and with the Singaporean curriculum - Values in Action (OECD, 2018) - which aims at creating teachers who are competent "to nurture a confident person, a self-directed learner, a concerned citizen and an active contributor" (p. 229) and to "cultivate human potential far more equitably" (p. 249).

This chapter has offered a snapshot of what has been achieved in recent years in the realm of HE research in Malta. More human, physical and financial research capacity is required so that the HE profession and HE curricula continue evolving, basing development on evidence as the discipline strives to achieve its goal to meet present societal needs within a local and global view, whilst also looking at trends and thinking proactively about shaping the future for improved quality of life. In the Maltese context, the FoE of the UM has had, and should continue to have, a strategic role in this key aspect of human development.

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Section IV

IMPACTING ON PRACTICE... EXPLORING CURRICULA AND PEDAGOGICAL ISSUES IN EDUCATIONAL CONTEXTS

**The use of Multimodal pedagogical resources in educational contexts
marked by social and economic disadvantage: A comparative analysis of Malta and Bataan.**

George Cremona

Abstract

The paper initially presents the rationale of the Multimodality in Practice research project launched in 2012. The main aim of the project is to adopt and adapt Multimodal theories (including those of Kress, 2010 and Jewitt, 2008) to the specific needs of practical teaching and learning contexts (i.e. primary, secondary and tertiary level classrooms and schools) and to conduct research about the effects these theory-practice links could have on teachers and their students. I draw on my academic role at the Faculty of Education, University of Malta to develop curricular design and development based on educational research that adopts multimodality to investigate various teaching and learning contexts. After a brief introduction highlighting how the project started, the paper will then include a detailed socio-semiotic theoretical background of the original MIRROR Multimodal Framework (designed by Cremona in 2015; also explained in detail in Cremona, 2017a) on which the Multimodality in Practice research project revolves. After this, in view of a multimodal conceptual framework, the chapter will comparatively discuss insights obtained from two of the sub-projects of the Multimodality in Practice research project through which while I collect data, I feel I can serve as a source of outreach to the general educational society on behalf of the Faculty. Insights obtained from my work with foreign language teachers preparing multimodality-based lesson plans in Malta (i.e. on a national level) as part of the Teaching through the Eurovision: a multimodal research project (Cremona, 2016; Cremona, 2017b) will be compared to insights obtained from an experience where together with Filipino teachers (i.e. on a wider international level) I planned a set of multimodal lessons and resources for secondary and primary schools in Bataan (i.e. an educational contexts in the Philippines marked by social and economic disadvantage). In both cases, data was collected through fieldwork in classrooms, observations in schools and interviews with participating teachers. Through the comparative analysis of both sets of data, two main conclusions are drawn up and reported in this paper. Firstly, that multimodal theories can effectively be applicable in both learning contexts. Furthermore, a second equally relevant (and exciting) conclusion suggested by the findings of the paper is that, whereas in both contexts, teachers were working in different cultural realities, frequently at bottom line teachers still in both contexts identify similar and common challenges (time constraints, exam oriented challenges, packed syllabi) and benefits (such as student centred positive remarks) when reflecting on the application of Multimodal theories and resources in their daily classroom practices.

Keywords: Multimodality, Foreign Language Learning, Disadvantaged Learning Contexts

Introduction: Answering a pertinent question and setting definitions

I still recall my first reaction when my PhD supervisor at the UCL Institute of Education [IOE] in London suggested that I should consider reading some material about Multimodality. I instantly looked at him with inquisitive eyes and asked him: 'But what is Multimodality?'

Through readings and thanks to the golden opportunity to collaborate with the most prominent contemporary academics in the field of Multimodality working at the IOE (including Kress 2000; Jewitt, 2009; Bezemer & Mavers, 2011; as well as Norris, 2002), I gradually started forming a comprehensive and detailed definition of the term through which I could answer this pertinent question. All these Multimodality related readings and academic experiences – in their way – led to one common definition, namely that Multimodality involves: ‘The use of several semiotic modes in the design of a semiotic product or event, together with the particular way in which these modes are combined’ (Kress & Van Leeuwen, 2001, p. 20).

Therefore, those working within the socio-semiotic field of Multimodality work with *modes* which are culturally-shaped semiotic resources having specific potentials through which each can produce certain communicative effects and not others (Stein, 2008). These potentials are called affordances (Gibson, 1979). The contemporary digital generation (Beach & O’Brien, 2008):

increasingly likely expresses ideas using different semiotic modes, including print, visual, and audio modes, and create[s] hybrid texts that defy typical associations between modes and what they traditionally represent (Wood & Blanton, 2009, p. 476).

Keeping this in mind, the traditional distinction between verbal and non-verbal modes, often treating language as a superior mode – when in fact it may not always be the case – is avoided. Aware of such a situation, the definition I have developed, instead distinguishes between embodied and disembodied modes (Norris, 2004).

Embodied modes classify language with other modes like gesture, gaze, or posture which ‘can play a *superordinate* or an *equal* role to the mode of language in interaction, and therefore, these modes are not merely embellishments to language’ (Norris, 2004, p. x).

On the other hand, disembodied modes ‘include among others music, print, layout, colour, clothes and any other mode deriving from the setting or material world where the interaction is happening. These too can take a superordinate role in interaction and at times even ‘overrule’ embodied modes’ (Norris, 2004, p. x).

Aware of the vision of the Faculty of Education, stressing that as members of the Faculty we should ‘develop, promote and implement innovative, cutting-edge pedagogies that help learners thrive in rich, flexible, creative and empowering environments’ (FOE, 2015, p. 2), since my PhD research days, I felt that opting this path as a main area of specialisation was logical in a context [i.e. Malta] which still till then (i.e. in 2010), had not tasted Educational Multimodal research.

Moving from what to how questions: Launching the research project

Therefore, through my PhD research venture, I have managed to develop this definition of Multimodality through which I could collect and analyse my PhD data. Moreover, once I was equipped with this definition, whenever I was asked by colleagues, students, educators or the general public what my areas of specialisation are, each time I mentioned Multimodality, I was faced by reactions always somehow hinting back to the one and only question: But what is Multimodality?

Each time I had to answer, my attempts to explain what I was working on, always started from

the point that basically rather than just re-inventing the wheel, the concept of Multimodality seeks to identify what makes sense for the students when they are out of class, and uses all this for the purposes of teaching curricular topics and subject matter (European Commission, 2011).

Notwithstanding my lengthy explanations of what *Multimodality* means, each time the question came and still comes up, I constantly feel that whoever asks the question would understand better through practical examples of uses of multimodality in classrooms. Based on this reasoning, as a reaction, I started thinking of various initiatives linking theory to practice, through which I felt I could help those asking what Multimodality is, to define the term through concrete and practice-oriented answers. Therefore, from the ‘*what is Multimodality?*’ question, I moved on to the attempt to answer the question: *how can Multimodality be used and applied?*

In this, my role of resident Lecturer at the Faculty of Education was instrumental. My role within the Faculty served as a perfect vehicle which facilitated my intentions and motivated me to explain what the term *Multimodality* and *Multimodal* means, through:

1. Observing various educational context and the presence and/or absence of multimodality within these contexts;
2. launching practical initiatives adopting Multimodal principles within these contexts;
3. investigating and researching critically the possible pedagogic effects, challenges and benefits the application of these Multimodal principles would have on the students and teachers of these particular educational contexts;
4. presenting these research findings in academic papers, conferences or dissertations.

This was how the *Multimodality in Practice* research project originated. Since the time I designed and launched the project, it has been constantly sustained by the principle that: The Faculty of Education values and promotes education both as good in itself and for its practical outcomes, that is, for what it achieves for the individual, for its contribution to social integration and justice, and for its economic value (FOE, 2015, p. 1).

What began in 2012, evolved into a number of initiatives through which as a member of the Faculty of Education I could do outreach in schools and the general society and also through which I could contribute to knowledge in the fast-growing local and international academic field of Multimodality.

A Multimodal framework driving the project: The Mirror Framework

One of the main contributions I feel I have achieved since the launch of the Multimodality in Practice research project is the development of a theoretical framework which I myself have developed, proposed as a critical framework for those working in the field of Multimodality. Since the very early days of the project, I felt that for each initiative I intended to launch as part of the research project, I required a set of steps based on theory which I [and others involved in the project] could follow to ensure that we are indeed adopting and adapting Multimodal lines. As explained in detail elsewhere (Cremona, 2015; Cremona 2017b), this framework – which I call the MIRROR framework – has been developed after four years of continuous research and analysis within the field and includes the following steps:

Table 1: An Overview of the Multimodal MIRROR Framework

Monitoring of available texts and choosing the actual texts one can use within the particular teaching/learning context;

- Which are the sources available at hand?
- Which are the most quoted (i.e. the most popular) texts at hand?
- How are they similar?
- In what way do they differ?
- Do any of the available texts possess a particular/special feature which deserves particular attention? Why?

Initial descriptive interpretation (per individual text);

- Which topic(s) are being presented and/or discussed?
- Who is the ideal reader of the text? For who was it originally designed? Which genres are being used to present the text? Which are the implications linked to these particular genres used and how do these implications contribute to set/ effect the students within the particular classroom?
- Which representations do the selected texts appear to imply after a first reading (i.e. the preferred reading)?

Representational multimodal semiotic interpretation (per individual text);

- Which are the particular sections of the selected texts which appear sequential (i.e. not as separate entities)?
- Identify all the modes – embodied and disembodied (see Introduction Section above*) - building up the text.
- What representations does the reader perceive through the embodied modes included in the particular text?
- What representations does the reader perceive through the disembodied modes included in the particular text?

Represented social interpretation (per individual text);

- Are particular social features and practices preferred/disfavored by the representation presented by this particular text?
- Are particular discourses preferred/disfavored by the representation presented by this particular text? (See details in Table 2 below)

Overview of the representations observed: presenting a detailed write up of the representations obtained per individual text. Later comparing individual trends with common trends derived from texts as a whole (where possible).

Reorganising the representations derived from the MIRROR Framework (i.e. those presented in the above-mentioned steps) in the best way to serve the particular learning/teaching context they are going to be applied to.

From theory to practice: Launching a number of initiatives

The driving principle of the Multimodality in Practice research project thus follows the intertwined MIRROR framework steps and adopts these steps to:

1. observe and interpret contemporary teaching and learning strategies adopted in contemporary learning/teaching contexts;
2. research about the benefits and challenges resulting from the use and/or lack of Multimodality within these educational contexts;
3. propose suggestions based on Multimodal principles through which these benefits may be sustained and strengthened and offering support in cases where challenges are encountered.

Each initiative launched as part of the Multimodality in Practice project starts by looking at the particular context at hand (i.e. classrooms, schools, group of students, teachers, the general society). All the texts available at hand are identified (M: first step of Mirror Framework). The project continuously adopts authentic texts and materials ‘produced for ‘real’, out-of-classroom contexts and for specific purposes’ (Pachler et al., 2013, p.280). One should add that:

‘When people first think of authentic materials they usually assume that we are talking about newspaper and magazine articles. However, the term can also encompass such things as songs, web pages, radio & TV broadcasts, films, leaflets, flyers, posters, indeed anything written in the target language and used unedited in the classroom’. (BBC British Council, 2004, online).

This implies that the definition of text I am applying in this paper includes the concept of multimodal authenticity which Kress and van Leeuwen (2001, p. 20) define as ‘the use of several semiotic modes in the design of a semiotic products or events’. Therefore, my definition of text acknowledges and understands the importance of other semiotics apart from language. These include images, pictures and visuals, sound, body language including facial expression, gaze, gesture as well as other disembodied resources such as clothes, colour and distance (Norris, 2002).

After an identification of all the texts available in the particular learning and/or teaching context, the question driving the first step of the Multimodality in Practice research project is: Which texts are the most relevant in this context i.e. which are the resources which make sense for the audience in this particular selected context? Once the most relevant texts are identified, among all the possible texts at hand, then the process first starts by an initial descriptive reading (I: second step of the Mirror Framework), moving on to a detailed interpretation of these texts through a Multimodal (R: third step of the Mirror Framework) and through a social lens (R: the fourth step of the Mirror Framework). This includes looking at the texts and interpreting them in the light of the following social features as shown on Table 2.

Once this socio-semiotic interpretation of these texts is completed, the final two steps focus on the ways these identified characteristics obtained through the first four steps of the MIRROR Framework can potentially and critically be used to lead to more effective teaching and learning. This process is first done by myself as the coordinator of the research project and later repeated again together with teachers who willingly ask to participate in the research project.

Learning through the Eurovision

Since the launch of the *Multimodality in Practice* research project – back in 2012 - I felt that

Answers the question in terms of the following social features and practices:

- Social Identity and Social Groups
- Social Interaction
- Belief and Behaviour
- Social and Political Institutions
- Socialisation and the life-cycle
- National history
- National geography

Adopted from Byram (1993, pp. 36-37)



The attempt to answer the above question also aims to highlight possible discourse types, which may include discourses linked to:

- Class
- Race
- Gender
- Media language, advertisements and promotional culture
- Institutional Discourse: in institutional practices and communications
- Education: an area for reproduction of social relations, representations and identity-formation.

Adopted from Blommaert (2005, pp. 26-27)

Table 2: The Social Features the fourth level of the MIRROR Framework.

the Eurovision Song Contest, the popular phenomenon, could serve as a rich pedagogical tool to teach curricular subjects in schools. This feeling was based on the popular reaction of the Maltese towards the festival and on official statistics published yearly that over 95% of the whole Maltese population annually views the Eurovision Song Contest [ESC] (PBS, 2017). Furthermore, over 204 million viewers around Europe view the festival (Eurovision.tv, online), Keeping this in mind, through my post of Lecturer and teacher educator at the University of Malta, encouraged by the mission statement of the Faculty suggesting that as Faculty Members we should design 'programmes that are meaningful to students [...], promoting a love of knowledge, habits of lifelong learning, a sense of joy in discovery and critical thought, as well as nurturing dispositions' (FOE, 2015, p. 3), in 2014 I launched the *Learning through the Eurovision: a multimodal research project*. The project originally addressed educators, teachers and students working within language learning contexts in primary and secondary schools in Malta. The main aim of the educational project is to continuously conduct language lessons which include ESC songs as pedagogical resources through which the effective teaching of linguistic skills [i.e. writing, reading, speaking, listening] and linguistic competences [including grammar] may be initiated and facilitated (Newspoint, 2016). The project seeks to work with language teachers who themselves are willing to participate. On receiving the formal request of interested language teachers, I meet the teachers and during the initial phase, together we identify the curricular content area he/she/they intend to teach through the project. Together, we then design the lesson plans and adapt them according to the needs of the students within the particular language learning context. Once the lessons are conducted, their evaluation leads to critical insights about the pedagogic effects of these ESC songs in language learning contexts.

Adopting a multimodal approach: The Mirror Framework

Since the initial phase of lesson planning, as well as while delivering the lessons, those involved in the project adopt a Multimodal approach. The theoretical multimodal approach adopted, views each ESC song as a collection of modes, which are culturally shaped semiotic resources having specific potentials through which they can produce certain communicative effects on the students (see Kress, 2010) in the particular language learning context. The evaluation of the ESC songs is conducted following the MIRROR multimodal theoretical framework (see Cremona, 2015 and Cremona 2017) that I developed. Following the steps of the Mirror Framework, we conduct this socio-semiotic process:

Monitoring available ESC songs and choosing the actual songs to use in class from all those which have participated in one of the 63 editions of the ESC;

Initial descriptive interpretation (per individual song focusing on the message of the text i.e. lyrics);

Representational multimodal semiotic interpretation (per individual text, i.e. this includes a deeper analysis of the song. Among others this step analyses the content of the song, the linguistic level of the lyrics and the style, genre and arrangement of music);

Represented social interpretation (per individual text focusing on socio-cultural messages implied);

Overview of the themes observed: later comparing individual trends with common trends derived from texts as a whole (where possible);

Reorganising and presenting the text according to the needs of the students in the particular learning context.

Outcomes from this research project: Research findings from language classrooms

Since its launch (in 2012) the Learning through the Eurovision research project had 54 invites and requests by teachers working in different schools. These included primary, secondary and tertiary education institutions in Malta, Gozo, Sweden, Germany, Spain, Italy, Ukraine and Switzerland. Each time, myself and the participating teachers design a lesson plan for each session. This lesson plan design stage includes the selection and production of Multimodal ESC related texts such as videos, songs, handouts, and the exclusive participation of ESC singers and Malta Eurovision participants.

Later the lesson is conducted by the teacher herself. After this, through an informal 30-minute teacher semi-structured interview, the teachers involved share their critical views, their evaluation and their feelings about their involvement in the *Multimodality in Practice* research project. In this section I will include a roundup of the findings and results derived from the analysis of these teacher interviews. These interviews have been recorded, transcribed and thematically analysed (Creswell, 2013).

To start with, teachers frequently acknowledge that using these multimodal ESC related texts facilitate the task of implementation of the contemporary predominant foreign language methodologies. Put in the words of one of the teachers: “these multimodal ESC related texts serve as an excellent resource through which I find it easier to implement communicative

methodologies and task based activities” (similar idea in Pachler, Evans, Redondo and Fisher, 2013). In the teachers’ views, the multimodal ESC related texts allow teachers to present students the target language through real and authentic contexts (Azri et al, 2014; Widowson, 1990), and this is perfectly in line with the suggestions of the most prominent contemporary language methodologies (as suggested by Willis & Willis, 1996).

Furthermore, while participating teachers suggest that lesson planning and resource preparation is very time consuming and at times very tiring (similar view in Edelenbos et al, 2006), the participating teachers all agreed that these multimodal ESC related texts facilitated student centred learning contexts. Teachers indicate that they feel that rather than themselves being at the centre, just feeding students with insignificant chunks of a foreign language, through multimodal ESC related texts, student themselves end up at the centre, motivated and very often actively involved in tasks through which they can learn better the foreign language (similar idea in Mathukin & Bolgova, 2015).

The FL teachers also suggested that, the fact that the selected multimodal ESC related texts include different genres, topics and styles, serves well to attract more the students’ attention. Linked to this *variety is the spice of life* concept (Barrett, 2009), one teacher felt that these songs should be used with caution so as to avoid situations where students treat these multimodal ESC related texts ‘as the usual stuff’. With this, one other teacher added that ESC songs add variety in class since they are frequently only 3 minutes long. Thus compared to other songs, these ESC songs are neither too long, not too short.

In brief, the participating teachers all tend to suggest that the main strength of the project is the way it manages to value the participation both of students who are keen followers of the ESC as well as of others who are not interested about the contest and its music. Those who do not like it, are still involved by being continuously being encouraged to adopt a critical stance.

Moving on from languages to other curricular subjects

Having obtained this data, once the project has established itself as a tool for foreign language teachers locally and around various countries, I felt that I had to constantly [for the sake to keep the project fresh and going] keep exploring different venues through which I could explore further the use of Multimodality. Following Barne’s (2015) advice that expanding the perspective from focusing on one subject to focus on more curricular areas can have advantages, what started as a project researching foreign language and language learning contexts, in a couple of months evolved to also address other curricular subjects.

The following are a number of examples of non-language related participants who took part in the *Multimodality in Practice* research project. Throughout time I have worked with teachers of Geography while teaching capital cities or map locations. A number of teachers of History tackled the recent historical developments between Russia and Ukraine and between Armenia and Azerbaijan. A group of teachers of Mathematics used the project as a tool when teaching probabilities. A group of Social Studies teachers developed a five-week programme linked to the syllabus topic of tolerance. Through the participants of the Eurovision Song Contest and their songs, these teachers offered students the opportunity to discuss gender, disabilities, race, economic, age, culture and different social backgrounds and tolerance these social features imply.

Outcomes from this research project: Research findings from contexts other than FL learning contexts
Data collected from the latter non-language related experiences indicates that teachers of the

various subjects frequently point out that when evaluating their experience as participants in the project they feel a benefit obtained through the shared lesson planning sessions. Teachers tend to stress that planning lesson plans together helps them increase critical insights about what works and what could work less (Gray & Morton, 2018). Apart from this, they tend to become more aware that teaching their subject with these authentic music materials requires better planning since the teacher needs to first herself/himself be equipped with the knowledge about the Eurovision Song Contest in order to include the 'best' or 'most adequate' ESC multimodal related text for the particular context (Cremona, 2018).

**The Multimodality in Practice research project:
An outreach voice by, for and within the Faculty**

Therefore, from the discussion above, one can observe that what started as a personal initiative back in 2010, evolved gradually to an ongoing outreach tool within the Faculty of Education.

Even if at the beginning, some could not comprehend the theoretical and practical effectivity of the Multimodal field of research, gradually, in just three years, what started as a personal initiative gained very strong momentum. Since its launch, the project became disseminated across all the departments within the Faculty through the number of frequent requests from:

- Masters and Undergraduate students who wish to include Multimodality as their theoretical framework in their dissertations. Through this, I feel I constantly contribute to the Faculty's will to be present and influential through education-related research and its dissemination. With this, I also add the very regular presentations at local and international conferences, where abstracts I submit are accepted for presentation at the particular conferences;
- colleagues who ask me to design study units specifically aiming to explain and discuss the use of Multimodality within educational contexts. I have designed at least one study unit for each department within the Faculty;
- radio and Tv stations asking me to produce educational multimodal slots. These air regularly [on a weekly basis] on national radio and TV stations. For these, modestly I obtained the prestigious national Journalism Award in 2017 (IGM, 2017). Through these I feel I am using the media as a platform and opportunity (Viebach et al, 2016) as a means of outreach keeping other academics, educators and the general public updated with the relevance of the Faculty and its effectivity in setting educational policies;
- colleagues within the Faculty regularly inviting me to lead and organize CPDs through which as a member of the Faculty I can contribute in the Faculty's priority to focus not only on Initial Teacher Training but also on lifelong teacher training (FoE, 2015);
- to serve as a reviewer in a number of prominent academic journals which specifically target Multimodality as their main research area.

Therefore, what started as a personal initiative, thanks to the backing of my colleagues at the Faculty, turned out to find very strong footing and ample space at all levels within the Faculty and across all departments.

This encourages me to keep researching further about the field and to constantly think of ways how I can contribute to develop even more the field of Multimodality locally and internationally.

Moving on – From local to international: Multimodality in ‘Disadvantaged’ Educational Areas

Familiarising myself and keeping myself updated with the most relevant and contemporary publications, developments and journal articles within the field made me realize that while the research field is vastly growing and constantly widening, there seems to be a keen call for research about the way Multimodality can effect even the least advantaged educational contexts. Reading Fajardo’s (2016) work made me feel the calling that after almost three years focusing on local and international educational contexts in developed countries, there is a lot I can contribute once I get out of my ‘Multimodal comfort zone’ and focus on other contexts which are viewed or labelled as disadvantaged educational contexts.

And this was what motivated the start of the *Multimodal advantages: the Bataan Case study* a sub-project of the *Multimodality in Practice* research project. Also in line with the Faculty mission statement, this sub-project serves as a means of outreach through which as a member of the Faculty, I intend to:

- contribute to on-going local and international debates regarding education broadly understood and to educational policy making at the local, national, and supranational level;
- be of service through flexibly responding to evolving and changing educational scenarios locally and abroad;
- develop programmes that effectively engage with the shifting social and cultural landscape in Malta;
- provide Maltese policy makers with the evidence and understanding needed to make wise and just educational decisions, thus also encouraging all educational actors to commit themselves to research-led practice;
- seek collaboration and partnerships with a diverse range of stakeholders (FoE, 2015, p. 1).

With these aims in mind, in July 2017, I launched this second sub-project of the *Multimodality in Practice* research project. This happened when I visited the *Jose de Piro Educational Centre for Arts in Bataan* (in the Philippines). The centre is located in the village of Pagalanggang, in the town of Dinalupihan, Bataan Province.

‘Poverty in the Philippines remains a predominantly rural phenomenon, which is partly attributable to decade-long problems in agriculture. Agricultural growth has not been sustained for many reasons— bad weather (typhoons), weak property rights (failure of agrarian reform), inadequate delivery of agricultural services, and weak governance’ (ADB, 2009, p.19).

Usually these provinces in the Philippines have very rich natural resources but due to the lack of development in these areas, people living in them experience unemployment, find it hard to study and thus to develop their skills. The area is socially and economically disadvantaged. Rice fields are the main source of income and employment of the people living in Pagalanggang.

In fact, ‘many people in Pagalanggang can only work in the dry season and are unemployed for the rest of the wet season period. Apart from lacking the bare necessities which families require, the area also lacks family oriented recreational parks and places where people may pass their free time. The abovementioned situation frequently forces people to move out of the area with the intention to seek greener pastures. As a consequence, most of the people leaving Bataan end up living under bridges in Manila’ (Jose De Piro Educational Centre History, page 1-2, 2017).

Notwithstanding all this, thousands of children, adolescents and youths living in Pagalangang (Bataan), attend primary and secondary schools found close by, walking distance from the area of the *Jose de Piro Educational Centre for Arts in Bataan*. Schools start at 7.30am and finish at 4pm. In brief, put in Fajardo's words (2016) the educational system may be outlined in this way:

The Enhanced Basic Education Act of 2013 requires children aged five to attend kindergarten to better prepare them for their six years of elementary schooling. They then proceed to a secondary education system which has two phases: four years in junior high school and an additional two years in senior high school. The present government argues that the increase in the number of years in basic education will give the Filipino students time to master concepts and skills and keep them on par with their international counterparts (Presidential Communications Development & Strategic Planning 8 Office, 2012). The curriculum for senior high school is designed so that students are able to choose one of three career tracks: academic, technical/vocational and sports/arts. It is the government's way of equipping Filipinos with skills by ensuring relevant, integrated and sustained learning across levels and subjects in preparation for gainful employment and entrepreneurship (Presidential Communications Development & Strategic Planning Office, 2012).

Education sectors in the country, however, argue that increasing the number of years of basic education may help but is not sufficient to improve the quality of education in the country unless perennial educational problems are addressed, such as shortages of teachers and books, overcrowded classrooms, poor assessment of learning outcomes, low-quality text books, high drop-out rates and inadequate teaching methods (de Guzman, 2007; Rubdy 2012; UNESCO, n.d.). Generally, the new K-12 basic education curriculum seems promising but whether it fulfils its goals is yet to be determined" (Fajardo, 2016, pp. 6-7).

While experiencing all this, once they finish their school day, kids in Pagalangang have the opportunity to attend the *Jose de Piro Educational Centre for Arts*. At the centre, each student receives spiritual formation, learns music theory and practice for free and eventually forms part of a children and youth orchestra.

Data collection plan

Adopting convenience sampling (Patton, 2002), based on the contact I have with the director of the centre, I originally intended to visit Bataan for only four weeks (in July - August 2017). My intention was to conduct a case study (Newby, 2010) based on ethnographic principles (Cohen, Manion & Morrison, 2007). During my stay, I intended to conduct a number of lesson plans I have designed before going to the Philippines. Through this experience and through teacher reactions, I intended to investigate how Multimodality would effect these disadvantaged learning contexts.

Before going to the Philippines, I was planning that as a proactive reaction to the first experience in Bataan, through the data I would collect, I **intended** to answer two main research questions

1. Is Multimodality being used as a critical pedagogic tool in the selected 'disadvantaged' learning context(s)?
2. Which multimodal suggestions can I offer and/or develop according to the outcomes of RQ1?

I felt this was the way how I could contribute, in a situation where according to the National Legal Framework for Basic Education of the Philippines (2001) there is the call for:

“Introducing new and innovative modes of instruction to achieve higher learning outcomes” (p. 9).

Preliminary results: Moving from judgmental to understanding stances

Once I arrived in Bataan, I started spending whole days [from 7.30am to 4.00pm] in schools. I visited classrooms and did 5 one-hour lessons a day.

Without noticing, as soon as I arrived and set foot in the first classroom, I instantly started passing judgemental comments hastily concluding that multimodal theories can effectively be applicable in learning and teaching contexts of both developed and less/non-developed countries. As from day one, I erroneously felt in a position to suggest the conclusion that even if the teachers were working in different cultural realities, at bottom line teachers in both advantaged and disadvantaged educational contexts still identify similar and common challenges. These in my view included the ones identified by teachers participating in the *Learning through the Eurovision* (i.e. time constraints, exam oriented challenges, packed syllabi) and benefits encountered by those working in less disadvantaged contexts.

However, as days started passing, I realized that in Bataan I was experiencing a different culture from what I was familiar to (Garii, 2009). I started observing that the different contexts within the same community were so different, and that instead of rushing to conclusions, I should support students and teachers working in these ‘foreign’ contexts through empathy and understanding rather than through adopting judgemental stances (Stachowski, 2007).

Facing this situation, at the end of the four weeks which I originally planned to pass in Bataan, I was still striving to obtain critical insights about the context. Driven by this factor, I extended my stay by four weeks and even then, the only concrete result I feel I had at hand was just the very important insight that rather than adopting the ‘telling them what to do with Multimodality’ stance, I felt that in this case, I would benefit much more if [at least for the time being] I take the silent observer’s role (Mills, Durepos & Wiebe, 2010) and first observe what is happening in each situation I have access to.

Looking retrospectively, I now realize that without my awareness, my ‘multimodal comfort zone’ and the knowledge I had perceived through readings and through all the experiences in Malta and around Europe, were simply directing me and leading me to offer as sense of false generosity from my side, causing me to view Multimodality as a tool: ‘given to be received by people, [not as] something to be created by them’ (Freire, 1996, p. 21), thus possibly leading to further oppression of the oppressed.

Through the evaluation of the fieldnotes I wrote in the first days I spent in Bataan and looking at the questions I started asking teachers I was working with, I also realize that back then I was looking at these ‘disadvantaged’ contexts through a very essentialist lens. Gelman (2003) elaborates that:

There are unmistakable benefits to essentialism. It provides a framework for making valuable category based inferences. It encourages a “scientific” mindset in thinking about the natural world, a belief that intensive study of a natural domain will yield even more underlying properties.

Yet essentialism also carries with it serious costs. Most troubling, it encourages and justifies stereotyping of social categories (including race, gender and sexual orientation, Haslam, Rothschild & Ernst, 2000). It perpetuates the assumption that artificial distinctions (such as caste or class) are natural, inevitable, and fixed. Relatedly, it poses obstacles to a complete grasp of evolutionary biology, as it implies that each species is fixed and immutable, not allowing for the possibility of evolutionary change over time (p. 297).

Indeed, reacting to this outcome of my research venture, day after day, since my arrival in Bataan, I started feeling that I was treating what in my view was ‘disadvantaged’ and looking at it through an unfair superior lens. Through this unconscious attitude, I was treating whoever was teaching and learning in these contexts as less competent than the subjects and participants in the contexts I was familiar to i.e. the Maltese and European educational contexts I had worked in prior to my experience in Bataan.

Therefore, once I became aware of this, through my observations, my daily presence in schools and my reactions to what I was observing and experiencing, I realized that before hastily offering my multimodal solutions as I intended to originally do, I first needed to question my essentialist perspectives of these ‘disadvantaged’ educational contexts since these were not allowing me to look at the contexts through a non-judgmental lens.

Reading through my original [first week] fieldnotes and going through the lesson plans I had designed, I realized that in order to move from this judgemental stance to a more understanding stance, I required more time and more knowledge. Now that I am aware of all this, in order to avoid judging the situation, I am constantly asking the questions posed by Sadker and Sadker (in Banks & Banks, 2010) which direct me to focus on:

1. Stereotypes: Am I assigning a rigid set of characteristics to all members of a group, at the cost of individual attributes and differences?
2. Invisibility or Group exclusion: Are all racial/ethnic/gender/religious groups equally represented in my views and thoughts?
3. Imbalance: Is only one interpretation of an issue, situation or group of people mentioned?
4. Unreality: The glossing of unpleasant historical events and facts often ignoring prejudice, racism, discrimination, exploitation, oppression, sexism, and inter-group conflict.
5. Fragmentation: Is a group physically or visually isolated? Through this technique the isolated group is usually represented as non-dominant and as peripheral.
6. Linguistic bias: Does the language used – visibly or in a subtle way – treat different races/ethnicities, genders, accents, ages, (dis)abilities and sexual orientations equally?
7. Cosmetic bias: Through its presentation (i.e. such as its covers, colour, posters etc) does the text give a modern biasfree impression? However, is this just an “illusion of equity”?

Therefore, based on the reflective outcomes of this first eight week-visit in Bataan, I have developed the project in a way to include three further different research phases which I intend to execute gradually throughout the coming years. As the Faculty mission statement suggests, I need to first engage with the world as it is (therefore adopting deeper understanding stances of the educational contexts in Bataan in the first phases) before ambitiously wishing to contribute

(through future phases) through multimodal suggestions about what works and what not in these particular learning contexts.

Conclusions

Through the outcomes of the on-going Multimodality in Practice research project discussed in this paper, a first conclusion one can reach, is the effectivity of Multimodality as a vehicle addressing multidisciplinary learning and teaching contexts.

Moreover, reflecting on the outcomes of this ongoing research project, one can also conclude two less obvious but equally very relevant conclusions about the working environment promoted by the Faculty of Education itself. The fact that the Faculty of Education enables me and encourages me to conduct this work [i.e. the Multimodality in Practice research project] without fear of endorsing the relatively innovative Multimodal research field, shows that while building on a 40-year old tradition, within the Faculty structures there is still ample space for innovative areas of research.

With this, since the time I have originally launched the project, a second factor I constantly feel is the flexibility the Faculty grants me as an educator and researcher, through which without hesitations, I can allow the data and the research to take me in unforeseen, at times even risky uncomfortable and unfamiliar paths.

And all this clearly suggests, that the way forward the Faculty of Education currently promotes, on the one hand embraces a 40-year old tradition, while simultaneously allowing room for contemporary innovations. This optimistically indicates that rather than being an aging 40-year 'old' conservative Faculty of Education, the Faculty builds on successful experiences yet still allows space for new ideas, new areas of research and new developments.

Indeed as the saying goes... life does begin at 40.

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Section IV

IMPACTING ON PRACTICE... EXPLORING CURRICULA AND PEDAGOGICAL ISSUES IN EDUCATIONAL CONTEXTS

Using cognitive conflict to support Maltese student teachers' understanding of abstract science concepts - a case study.

Charles Bonello

Abstract

One of the main contributions that constructivism has made to science education is that it has generated amongst researchers and teachers a deeper awareness about students' conceptions. Yet McDermott (1991) warns teachers that students' conceptions can at times lack clarity. It is well documented that problems can be caused by students' personalised conceptions (Duit, 2007) and these tend to persist even up to university level (Guisasola et al., 2003). One way of supporting students' understanding of these conceptions is through the use of cognitive conflict. The theoretical origins of 'cognitive conflict' can be traced back to Piaget (1972). When using cognitive conflict one presents learners with something which is intriguing and which makes them stop to think. It provides an opportunity for learners to apply their understanding of scientific principles to tasks that can potentially challenge this understanding so that they have to 'think again'. Through this process any students' misconceptions or hazy ideas can be discussed with tutors and peers. In this study, two groups of Maltese science student teachers participated in a teaching intervention. Each teaching intervention involved seven 2-hr sessions. Group one was made up of 11 students and Group two of 12 students. During these sessions the theme of 'Field Theory' was presented to the participants. The student teachers 'personalised' conceptions about Field Theory would, at this stage, have already been formed. During the intervention two formal tasks were given to the students. The tasks were: [i] a set of 45 True-False [T-F] statements and [ii] four laboratory demonstrations that followed 'Predict, Explain, Observe and React' [PEORs] sequence. These were meant to prompt cognitive conflict arguments between students.

In the classroom tasks, 168 sources of potential cognitive conflict were included in the T-F statements and PEORs. Out of these potential sources, 66 cases of cognitive conflicts resulted during the intervention. These conflicts were resolved by either the tutor, the peers or by the combined effort of both. This paper will discuss these conflicts and will provide evidence that such classroom argumentation tended to be lengthy and at times strenuous. Furthermore, the usefulness of the tasks set and how these can help prepare students to teach physics in secondary schools will also be discussed.

Keywords: Cognitive conflict, Learning, Field theory, Student-teachers and True-False statements

Introduction

One of the main contributions that constructivism has made to science education is that it has generated amongst researchers and teachers a deeper awareness about students' conceptions. Driver (1989) argues that human beings 'construct' mental representations of objects, events and

concepts. These representations are used to make sense of new situations that one encounters in life. A second contribution has been the extensive repertoire of students' science conceptions (Duit, 2007) that has been gathered over the years and that provides science educators and teachers with support when they research or teach particular areas of science. These students' conceptions may vary significantly from the scientific concepts as initially conceptualised by scientists, yet they may be quite consistent within the experience of the student's world.

McDermott (1991) warns teachers about a characteristic of these conceptions that is problematic to them and to their learners. This warning refers to the awareness that these 'common-sense' student conceptions are very difficult to uproot and tend to remain embedded in our students' list of conceptions even after one would have presented and discussed with students an accepted scientific idea. Research studies indicate that, even at tertiary level, students still find theorizing about abstract concepts in physics challenging (Gönen, 2008). It seems that the challenge is derived from the fact that when learning about these concepts students tend to develop an understanding that is to a certain extent 'personalised' and not in line with what the scientific community proposes. Such a situation is always problematic but if these students are student-teachers, this is even more of a concern. It is well documented that problems caused by these 'personalised' concepts are abundant in the area of 'Field Theory' (Furio, Guisasola & Almudi, 2003; Hermann, Hauptmann & Suleder, 2000; Maloney, O'Kuma, Hieggelke & Heuvelen, 2001) and tend to persist even up to university level. This case study presents a teaching strategy that is focussed on trying to improve tertiary level students' understanding of 'Field Theory'. This strategy makes significant use of the process of 'cognitive conflict' in a classroom context.

The role of cognitive conflict and conceptual change in teaching

The theoretical origins of 'cognitive conflict' can be traced back to Piaget (1972) who suggested that experiences which are puzzling to a learner can stimulate the development of intelligence. This implies that devising challenging activities for students and then helping them to meet these challenges is one way of providing a fruitful learning experience. Vygotsky (1978) provides a valuable contribution to this teaching strategy when he identifies the 'Zone of Proximal Development' as a necessary condition for learning to occur. Vygotsky describes this as the difference between what a learner can do unaided and what he/she can achieve with some leading questions and guidance from a teacher or a peer.

As knowledge and understanding of children's conceptions are seen as important because of the influence these have on subsequent learning, science educators felt the need to view the learning process as a process of conceptual change (Duit, 2003). This process involves changes that take place in students' conceptions and that may result in learners progressively reconstructing their 'mental representations' of natural phenomena. Studies of conceptual change (Carey, 1985) have focused on establishing the conditions that create situations where the student's existing conception can be made explicit so that it can be directly challenged to possibly create cognitive conflict. The conflict can then serve so that the student can evaluate the validity of her/his conception and if this is found problematic it would hopefully prompt the process of conceptual change. Some Piagetian advocates believe that experiencing cognitive conflict is indispensable for learning.

In contrast, other researchers have a different experience of such conflicts and their contribution to the learning process. Dreyfus, Jungwirth and Elovitch (1990) pointed out that students are often unable to achieve meaningful conflict or to become dissatisfied with their preconceptions.

Furthermore, even when the conflict is highlighted by some means, Scott et al., (1992) contend, that there is no guarantee that students will accept either its existence or its meaning. Personal experience has shown me that these findings are valuable eye-openers as a linear description of a cognitive conflict event is a rather simplified version of learning and does not always do justice to this laborious process.

Prior to investigating the role of cognitive conflict in learning, its meaning needs to be made more explicit. Hewson (1988) suggests that there are two kinds of cognitive conflict related to the different form of equilibration in Piaget’s theory; the conflict between a student’s conception and an event, and the conflict between two different cognitive structures. Of these two kinds of conflict, the former is of significant interest to teachers in the classroom and it will be the focus of this study.

A key construct in such cases of conflict involves the use of discrepant events. As stated earlier on, the pedagogic usefulness of such events is that these provide the student with new experiences to challenge their existing conceptions. These new experiences can be considered as ‘planned potential sources of cognitive conflict’ as these are sources that teachers include in their lesson with the intention of creating conflict. Cognitive conflict implies presenting learners with something puzzling or unexpected which makes them stop to think. It is not simply a matter of preparing and presenting difficult material, but rather of allowing learners to think about certain expectations which are then not met, so they need to ‘think again’. In considering 11-12 year olds one can make use of the senses to initiate cognitive conflict. When considering university students, concrete preparation can be replaced with formal tasks that challenge students’ own knowledge about these abstract concepts.

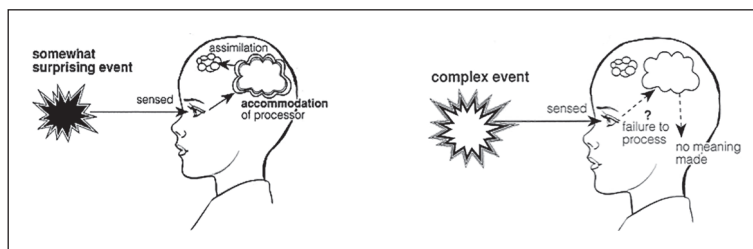


Figure 1. Adey (1999)

McGuiness (1999) suggests a teaching strategy that involves linking subject specific understanding with the teaching of thinking skills. It is this approach that has been adopted in this intervention and it is meant to encourage student teachers to present and share their ideas so that all students are exposed to a range of interpretations of physical phenomena apart from their own. Through this exposure, it is envisaged that students would think more deeply about their views on the subject area. This would allow for the possibility that different ideas surface and when this occurs it is opportune to initiate the process of argumentation, with the possible eventuality of cognitive conflict and the re-construction of ideas.

When using such strategies, students are bound to encounter cognitive conflict as Duncan et al., (2004) argue that “Cognitive conflict is deliberately engineered in many of these activities and exemplars.” (p. 4). This ensures that students’ engagement is given due consideration as conflicts tend to encourage thinking about the subject matter. This makes learning a fluid process that involves students arguing, going round in circles and taking wrong turnings. It also includes

a dose of inertia as students tend to hold onto their ideas and offer a significant resistance to a change of ideas. All this makes the process of reconstruction of ideas one that is unpredictable and emotionally charged.

As indicated earlier on, student awareness of their conceptions is an important precursor to knowledge reconstruction and possible conceptual change. Furthermore, the ability of a student to apply her/his ideas to the process of finding a solution to a qualitative problem was regarded as a valid indicator of their understanding of a concept. Through articulation of their ideas it was hoped that students gain a deeper understanding of the concepts, thus making the transition to the accepted view of the concept more possible.

Designing a research based intervention for Maltese student teachers

Adey (1999) and Leat and Higgins (2002) made use of theoretical ideas of Piaget and Vygotsky and applied them to the classroom setting. An edited version of these researchers' work was adopted in the development of the cognitive conflict strategy used in this study. The two main formal tasks presented during this intervention to the learners were:

- [i] True-False [T-F] statements and
- [ii] Predict, Explain, Observe and React [PEOR] demonstration

These two tasks provided the main sources of cognitive conflict. In designing these tasks, two objectives were kept in mind: (i) to elicit students' conceptions about the area under study and (ii) to provide through the process of classroom interactions a means of clarifying concepts and improve students' understanding of the topic under study. In line with these objectives, Scaife's (2007) idea of 'cyclic diagnostic assessment' was adopted as the diagnostic teaching was not an activity limited to the initial stages of the course but it was a continuous process that served to provide material for discussion and allow the learning process to evolve.

Task [i]: 'True-False (T-F) statement' strategy

The 'True-False (T-F) statement' strategy in its traditional form asks students to give [or possibly guess] a true or false response to the statement set. As teachers would anticipate a score of 50% for a student who did nothing but guess, they would not be so enthusiastic to use these in their course work. Furthermore, feedback from T-F statements does not provide any diagnostic information on why a student gave a wrong response and hence, the teacher would still not know what the students' gaps in understanding are. In an attempt to improve on this situation and to make these more suitable for student teachers, some modifications were made to the traditional T-F statements.

A first modification made to these T-F statements was related to the content of the statements presented. After reviewing a number of research studies related to students' misconceptions about 'Field Theory'(Furio et al., 2003; Hermann et al., 2000, Maloney et al., 2001), a list of the common misconceptions was prepared. This list served as a basis for the content of the T-F statements and in this way one could establish what Maltese students' misconceptions were. These misconceptions provided a basis for diagnostic teaching and for the eventual students' reconstruction of their personalised conceptions. As a second modification done to these tasks, students were asked to give an explanation of the T-F choice they made. By asking students to explain why they chose a particular response, students were involved in high level thinking that goes beyond simply choosing between two options. This provided students with an opportunity to make their ideas explicit and teachers with a diagnostic probe.

The third modification involved using T-F statements that were designed so that students did not respond to these statements by considering only the true or false alternatives. In fact, feedback to these statements could also be 'conditionally true' or 'conditionally false'. This encouraged students to come up with claims about the statements and prompted them to qualify their feedback in order to be able to decide on an option (Bonello, 2007). The fourth and last modification involved the students in writing down some feedback about their explanation after the classroom discussion. In this part, students were expected to provide written evidence about what they concluded from the classroom discussion. One hoped that students would be involved in some form of knowledge reconstruction in this part of the task.

Task [ii]: Predict, Explain, Observe and React (PEOR)

The PEOR teaching strategy is derived from a proposal by White and Gunstone (1992). These presented practical demonstrations in three phases - **Predict, Observe and Explain (POE)**. The PEOR adaptation, proposed by Scaife (2000), involves using a four-step process for a laboratory demonstration - **Predict, Explain, Observe and React**. In such a demonstration, students are asked to predict the outcome of an event and then to explain their prediction. Once they did this, the demonstration is presented and the outcome observed. When (and if) a cognitive conflict arises between students' predicted outcome and observed outcome, students are asked to react by doing some rethinking.

The challenge may be issued by the teacher but experience with the method has shown that in most cases the students' engagement leads to curiosity and to a desire to resolve the conflict. If, on the other hand, the prediction and explanation is consistent with what students observe, they would be asked to react by adding further detail to their response and hence reinforce their learning. The analysis of the students' responses to the PEOR would indicate what understanding students hold about a particular concept in Physics. It would also serve to diagnose the type of support needed to help students understand better the concept presented.

When making use of PEORs, there is a strong argument for using slightly novel or unusual demonstrations so that the students' experience is 'authentic' (Bonello & Scaife, 2009). The use of novelty brings with it the elements of surprise and curiosity and at the same time it challenges students to apply their ideas to new situations. A PEOR sequence has a learning focus that is nourished by curiosity. It is this curiosity that stimulates engagement throughout the whole sequence and encourages students to be active participants throughout the exercise.

In this research, two groups of Maltese science student teachers attending the University of Malta participated in the teaching intervention. These two groups differed in their level of specialisation in physics and were made up of 11 and 12 students respectively. The teaching intervention with each group involved seven two-hour sessions on the theme 'Field Theory'. The subject content discussed during these seven weeks was made up of five areas: [i] non-contact forces, [ii] magnetic fields, [iii] gravitational fields, [iv] electric fields and [v] time-dependent fields. Prior to the start of the course, the participants 'personalised' conceptions about the theory would have already be formed.

All the sessions included a number of tasks that provoked cognitive conflict. These tasks mainly involved students responding to (i) 45 T-F statements and (ii) four demonstrations that included 16 PEOR phases. Other tasks involved students participating in a brainstorming session, in group work experiments or in ICT demonstrations.

Each task was normally split up into three phases. The first phase consisted of each student working out the tasks, then students discussed their ideas in pairs and finally a plenary session was held during which feedback about and reflections on the tasks was made. In this final phase, the students' role was to present their ideas and the teacher's role was to facilitate the discussion, summarize the students' feedback and then present the outcomes of each task.

As the participants were student teachers who had a background of Physics, they had encountered this theory in their past coursework. The main scope for presenting such tasks to students was to set them thinking about the theory and to elicit potential sources of cognitive conflict they had so that during feedback time, they would be in a position to clarify their ideas.

Analysing the 'cognitive conflict' events

This analysis will focus on establishing whether and when 'cognitive conflict' resulted when students worked on these tasks, to what extent conflict was resolved and by whom. The lesson recordings and transcripts of these lessons were the sources of data used for this analysis. Classroom observation notes were also used to get a more complete picture of the scenario. As it is not possible to obtain direct evidence about the students' thinking, the lesson transcripts and notes were used to infer specific cognitive conflict processes. These inferences were made following a set of criteria that helped identify a conflict.

The following two examples of cognitive conflict taken from the transcripts are presented to illustrate how decisions to classify particular conflicting situations were made. The review of each of the conflict situation considered below includes [i] a briefing about the classroom context, [ii] a description of the conflict/s under discussion and [iii] the dynamics of the conflict resolution and [iv] a brief critique of the conflict discourse.

Episode 1: Cognitive conflict established and resolved by teacher

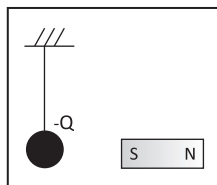
(i) Classroom context:

During a T-F exercise, the students were discussing a statement about 'Non-contact forces' and were asked to share their ideas about this statement. The T-F statement was:

"A student says that in the situation shown in the figure, a small polyurethane ball charged with a negative charge Q and a magnet, will repel."

(ii) Conflict/s under discussion:

Two conflicts arose from this statement. The first was whether the poles of magnets result from excess charges present at the poles. The second conflict was whether the pole of a magnet attracts a charged object. A student stated that these two assertions were true but most students were not so sure about this and were hesitant about what they were to say. The teacher guided the students and helped to resolve the conflict.



Line No.	Participant	Content
01 02 03 04	Adam	In magnets you have a rearrangement of charges; on one side you have the negative, on the other, the positive. So if you take the N-pole as positive then the S-pole will be negative. So you have negative and negative they will repel... so it is true.
05 06 07 08	Teacher	How many agree with the fact that ‘a magnet is a rearrangement of charges’? [a few participants nodded indicating agreement but most did not know what to say and their non-verbal expressions showed hesitancy] ... who disagrees? ... you two do not agree ... why do you disagree?
09 10 11	Jack	A charged magnet? ... magnetism is not completely different from electricity but these do not link so much that one can say that they cause repulsion and attraction ...
12 13 14	Teacher	This is a magnet and this is a Perspex ruler ... can I say that if I rub this [<i>Perspex ruler</i>] with a cloth they [<i>ruler end and magnet’s pole</i>] should attract or repel?
15	Donna	[<i>Hesitant</i>] This [<i>pointing at magnet</i>] attracts that [<i>pointing at ruler</i>]?
16	Joe	If it’s charged ... if you charge the ruler...
17	Teacher	What attracts and what repels in electrostatics?
18	Adam	Charges
19	Teacher	Charges ...like charges?
20	Students	Repel [<i>Chorus</i>]
21 22 23 24 25	Teacher	So as here [<i>referring to the unlike poles of magnets</i>] we have attraction therefore we say that we have unlike charges ...that’s how we seem to be reasoning things right now ...but did we charge this [<i>the magnet</i>] with something? Can this [<i>magnet</i>] take charge? ... keep it? If I hold it with my hand, will it keep charge?
26	Adam	Metal always has charge ...
27	Teacher	Even if I hold it with my hand?
28	Jack	You neutralise it?
29	Adam	You earth it ...
30	Jack	So it holds no charge
31 32	Teacher	So is charge the reason for attraction or repulsion [between the magnet and ball]? ... so can I say that a pole is an excess of charge?

33	Students	No
34 35	Wain	I suggest that we check whether an object is charged or not using an electroscope.

(iii) Dynamics of the conflict resolution

In the above episode Adam [line: 01-04] was the student who provoked the conflict and most of the students were at loss about how to react to Adam's assertion.

The teacher highlighted and emphasised the conflict by repeating Adam's words and by asking for students' feedback on Adam's assertion [lines: 05 – 08]. Here the teacher's contribution was useful and well-timed and provided the necessary prompting to establish the conflict and to make all students aware of it and engage with it.

Jack provided some feedback to Adam's ideas and Jack's feedback [lines: 09-11] indicated that Adam's arguments were now being challenged. This challenge was further supported by the teacher who presented to students a reference to some basic ideas they had encountered and studied earlier on in their physics courses. Here the teacher provided a source of evidence [lines: 12-14] that indicated that Adam's ideas needed reviewing and provided the direction needed to start the review process. The students took this cue and started discussing this evidence. Eventually this led to another teacher's contribution about charged objects and the charging process [lines: 21-25]. This supported the clarification process and was the cue needed to resolve the conflict. The student's final proposal [lines: 34-35] provided clear evidence that metal objects do not hold charge.

(iv) Critique of cognitive conflict phase

The above conflict was categorised as a 'Resolved conflict (by teacher)' for two main reasons. The first was that the students' school science knowledge about this area was hazy and consequently the teacher had to play a prominent role in guiding the discourse. In this case, the teacher contributed to the discourse by asking the questions, providing experimental evidence and proposing new ideas. Secondly, the conflict was resolved mostly by the teacher's suggestions [lines: 21-25, 27]. It was only towards the very end of the argument that a student also provided a suggestion [lines: 34-35] for conflict resolution.

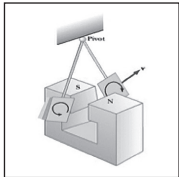
The overall flow of the conflict episode included significant teacher contribution and this could be seen as an intrusion to the students' cognitive processes. Considering the fact that students were at a loss on how to proceed, the type of contribution provided by the teacher seemed to provide the support needed to encourage students to focus on what could help them clarify their ideas. At the same time, the teacher allowed them enough space to contribute to the resolution of the conflict.

Episode 2: Cognitive conflict established and resolved by peers

(i) Classroom context: Four students were working on an experiment concerning a metal [copper] pendulum oscillating between the poles of a magnet. The four students were discussing the observations of the experiment as the pendulum slowed down as it approached or moved away from the poles of the magnet.

The conflict arose as students offered explanations for the observation made during this experiment. One student in fact argued that the metal pendulum slowed down as it was attracted by the magnet. This explanation seemed reasonable but was incorrect school science. Other students did not confirm or otherwise the assertion. This argument was discussed and resolved by one of the peers.

(ii) Conflict under discussion



A student demonstrated what happens when a metal pendulum was made to oscillate in a magnetic field. The participants were observing the oscillations of the metal pendulum and noted that the pendulum slowed down as it approached or moved away from the poles of the magnet. Below is the dialogue that followed after this observation was made. The teacher's contribution to this dialogue is minimal.

01	Ann	Here we have a metal pendulum and when we oscillate it ...I am going
02		to put it in the magnetic field [<i>between the poles of a magnet... student</i>
03		<i>demonstrates this</i>] it slows down ... why do you think it slows down?
04	Teacher	[<i>A very long silence so students were encouraged them to speak</i>] Any ideas?
05	Abbey	Something to do ... because of the magnetic field for sure...
06	Anita	[<i>Interrupts</i>] It becomes magnetised? ... and they attract each other like...
07	Mona	You said that this [<i>referring to pendulum</i>] becomes magnetised?... but
08		it's not made of iron?
09	Anita	Metal [<i>referring to Ann's statement in line 01</i>] she said?
10	Mona	Metal?
11	Anita	Any metal will do? ...what metal?...
12	Mona	If you put it like that [<i>placed metal pendulum near magnet and it just fell</i>
13		<i>off and showed no attraction</i>] ... it's a metal...
14	Anita	Then it's like the copper thing [<i>referring to an experiment done during</i>
15		<i>the lesson earlier on where a magnet was dropped down a copper tube</i>
16		<i>and it slowed down</i>] that's why it slows down ... opposition to motion –
17		Lenz law...
18		[<i>Mona then picked up Anita's explanation and applied Lenz law to this case.</i>]

(iii) Dynamics of the conflict resolution:

After Ann introduced the experiment [lines: 01-03], she presented the observation and posed the questions that set the class thinking and trying to provide feedback [lines: 04-06]. Subsequently, Mona, with the help of Anita, took the role of guiding the classroom discourse and established a conflict [lines: 07-11]. Mona answered Anita's question by using a simple experiment [lines:

12-13] and proved that it was a step in the wrong direction. This helped Anita to think about an alternative reason for the observation and come up with a second suggestion that was the correct scientific explanation [lines: 14-16].

During these experiments, participants were aware that the teacher had an observer status and was not expected to take part. The teacher provided input only when things came to a standstill and students needed to be encouraged to share ideas [line: 04]. The limited teacher involvement was the reason that this conflict was categorised as a 'Resolved conflict (by peers)'. In this case, the conflict wasn't completely resolved but progress was made as a result of peer discussion. This progress is significant even though it appears modest because ideas were generated by the students themselves and not simply as a result of responding to the teacher's prompts. Such cases mostly resulted when a small group of students did group work or when a few students were presenting an experiment to the whole class. In these cases, students posed the questions and guided their peers.

(iv) Critique of conflict phase:

This conflict was characterised by two descriptors. The first was that the students not only generated the conflict but also contributed most of the school science knowledge needed to resolve the conflict. This was not a common occurrence but students were being constantly encouraged to think through what they were observing and come up with their inferences. This outcome was indicative that students were engaging in some independent thinking.

Secondly, the teacher limited guidance allowed the discussion to evolve in a non-directive manner. This calls for significant restraint on the teacher's part. The outcome of this effort was that it allowed students to air their thoughts and hence enable school science ideas to prevail and take their course. The only contribution that the teacher did help to avoid was having the argument come to a standstill. When cognitive conflicts surface students need to be supported but not in a hand holding manner.

Potential cases of cognitive conflict and the outcomes

The above two cases were exemplars of the cognitive conflict episodes that surfaced during the teaching intervention. The table below includes as one of its sub-titles 'Potential sources of cognitive conflict'. The heading for this column is meant to emphasise that the lessons included a number of tasks that were integrated in the lessons and that were potential sources of cognitive conflict. In all there were 168 potential sources of cognitive conflicts embedded in the T-F statements, PEORs and other tasks.

These sources included 45 T-F statements; 16 PEOR phases and 23 'other tasks'. The 'other tasks' referred to other classroom activities such as a brainstorming exercise, ICT activities and practical work in small groups. As these sources were used with two groups of students the number of potential sources doubled. These sources did at times provide a source of conflict but this was not always the case. The table summarizes the information about the number of potential cases of cognitive conflict present in the teaching intervention, those that were resolved and by whom were they resolved.

Only 39% of the 168 cases of potential sources of cognitive conflict provided a source of conflict amongst the students. This resulted because in 102 cases of potential sources of conflict, no conflict was observed as the students managed to provide school science feedback for these cases. Considering that these were university students with a background of the subject area this

was understandable. Out of the remaining 66 conflict cases, 64 were resolved by teacher, peers or the combined effort of both and two were left unresolved.

Potential sources of cognitive Conflict	No. of cases of cognitive conflict	No of resolved cases of cognitive conflict	No of resolved conflicts [teacher]	No of resolved conflicts [peers]	No of resolved conflicts [teacher/peers]
T-F statements [90 cases]	45	43	14	8	21
PEORs [32 cases]	10	10	4	2	4
Other tasks [46 cases]	11	11	3	6	2
Total [168 cases]	66	64 [2 left unresolved]	21	16	27

The table also shows that half of the T-F statements that were potential sources of conflict actually did turn out to be a cause of conflict. This task generated the highest amount of conflicts from the three types of tasks presented. This can be understood, as these statements were challenging statements rooted in the students' alternative frameworks taken from past studies on 'Field theory'. The PEORs and the 'Other tasks' generated a total of 21 cases of cognitive conflict. This is 27% of the total number of conflicts presented. These conflicts were more focussed on demonstrations and it seems that these were less challenging to students. The number of conflicts resolved by the teacher was about a third of the total number of conflicts that resulted. The students could not tackle these conflicts and the teacher's support was necessary. In fact, the conflict was normally resolved when the teacher guided students to review certain science concepts, discuss the context presented and then clarify the concepts applied. Most of the time, this process was a lengthy one and made use of concrete experiences for conflict resolution.

Sixteen of the conflict cases were resolved by peers. In most of these cases students were doing group work or presentations so they knew that the role of the teacher was a relatively passive one. In most cases, students made use of what they had discussed in the lesson to back their arguments and resolve the conflict that resulted. In these cases, students' science knowledge was enough to help them work at and resolve the conflict. The remaining twenty-seven cases of conflicts were resolved by teacher and students. In this case, both the teacher and the students contributed science knowledge in a combined effort to resolve the conflict, but the students' contribution was less than that of the teacher. In such cases, the teacher played the guiding role in this conflict resolution yet the students provided significant school science feedback that helped resolve the conflict.

Discussion and conclusion

The theory that has informed the design of this teaching strategy is embedded in constructivism. The purpose of this strategy was to help student teachers to develop a more robust model of an

abstract scientific theory. This was done by providing students with sources of potential cognitive conflict that could prompt students to rethink their ideas and work at conceptual change. This seemingly linear process is more cyclic than linear and to some extent it is laborious and unpredictable.

Like the fable of the blind men and the elephant, it seems likely that this strategy may be addressing only one aspect of the complex learning process but then one cannot opt to go for an ad hoc teaching strategy and be atheoretical in order to consider many aspects of learning. Furthermore, since the cohort of students participating already had an understanding of the abstract theory being presented, a cognitive conflict strategy seemed a suitable approach to support improved understanding. Whether this has in fact done so can only be inferred to some extent from the classroom data. The following are four ways through which the teaching strategy seems to have helped the students clarify their ideas.

- [i] Using experiential tasks to clarify hazy conceptions – Research by Brown and Clement (1987) with university students has indicated the need of thought experiments in constructing conceptual bridges. Good exemplars of these were the PEORs demonstrations. These demonstrations included useful minds-on tasks through the ‘predict’ and the ‘explain’ phases. These together with the observations provided cognitive conflict when the observations did not agree with the students’ predictions. The discussion that followed was an opportunity for students’ rethinking and hopefully for their eventual improved understanding.
- [ii] Unpacking a conceptual challenge – In some cases, students faced a conceptual challenge which could not be solved directly but which required them to address a deeper problem. T-F statements generated cognitive conflicts that provided a useful opportunity to unpack hazy ideas. During the intervention, students seem to be having significant difficulty discussing the concepts of potential and potential energy. Students’ familiarity with gravitational potential and potential energy and some T-F statements linked with these phenomena helped them to extend their ideas from gravitational potential and potential energy to the less familiar electric and magnetic potential and potential energy.
- [iii] Tracing back the evolution of a concept – In the teaching of an abstract concept there is rarely any reference to the way the concept was conceived and to the fact that this is a human construct. When ‘Field Theory’ is discussed one rarely mentions that this was developed so that scientists could explain the phenomena of non-contact forces. When the starting point of a theory is left out, students are presented with ideas that seems to come out of nowhere and that seem disjointed. Tasks which focused their attention on the starter ideas that led to the theory needed to be addressed and were a useful starting point to better understanding. In adopting cognitive conflict situations about the evolution of the theory yields to some extent a more complete understanding of it.
- [iv] Differentiating concepts – In some cases students’ conceptions were so ill-defined that he/she hardly differentiated between two closely related concepts. In ‘Field Theory’, students find it difficult to distinguish between the words ‘force’ and ‘field’. As a consequence of this students would assert that an object when place in a field would experience a force in the direction of the field and not in a direction tangential to the field direction. Exposure to conflicts that address this lack of differentiation between the two physical quantities is another way that can support students’ improved understanding of a theory.

The starting point of designing, trialling and evaluating a teaching strategy requires that one is aware of the particular needs of the learner. In this particular scenario one needed to consider how a learner's conceptions could be brought to light and worked upon through the use of appropriate pedagogical strategies. The use of cognitive conflict strategies seem to have proved useful in this respect as they prompted a discussion of students' hazy ideas. It is essential at this stage, to appreciate that this was only a phase of the cyclic nature of the learning process. A course participant quote reveals that student teachers are aware that their knowledge of some scientific concepts need to be reviewed as it would contribute to their better teaching. 'Each task provided its own thought process and I felt tested about my knowledge on the subject. I realised that some of my views were a bit foggy and needed clearing up even though I studied these at SEC and advanced level. This was at times frustrating as I was not really happy with muddled up ideas but in the long run I feel it is useful'

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Section IV
**IMPACTING ON PRACTICE... EXPLORING CURRICULA
AND PEDAGOGICAL ISSUES IN EDUCATIONAL CONTEXTS**

A Pedagogy of Dialogue: curating and Artistic Education

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Raphael Vella

Abstract

As curatorial discourse and curators play an increasingly significant role in contemporary artistic practices, art history and the public's understanding of the visual arts, art educators need to take account of such developments and address curatorial strategies in their pedagogies. In order to ensure an educational complementarity between creative, hands-on art projects and an engagement with exhibition-making, curating can be introduced through the lens of artistic education as the latter has been theorised in German art education discourse. In this way, the pedagogical goals of perception, reflection, intuition and transformation can be boosted by including the various dialogues engendered by curatorial relations.

Keywords: *artistic education, curating, contemporary art, dialogue, visual competence.*

Introduction: Art education and curatorial practices

If we assume that art education can only remain relevant if it continues to reflect the changing nature of artistic practices, then we cannot steer clear of a reality that has increasingly characterised the field of contemporary art in recent decades: the fact that artistic and curatorial practices have moved closer to one another, with hundreds of artists integrating curatorial strategies in their work and many curators interpreting the exhibition as “a specific artistic form with its own distinct spatial qualities, properties, and modalities” (O’Neill, 2012, p. 88). While it may appear self-evident that the actual producer of material works of art is only one of many players in a field of cultural production that includes gallery directors, critics, publishers, curators, teachers and many others (Bourdieu, 1993), art educators should also keep in mind that in recent decades, exhibition practices and independent curatorial practices – often artist-led – show that the exhibition is frequently interpreted as a medium in itself, with players taking on converging rather than mutually exclusive roles. The idea that the curator’s role is artistic in nature has had various prominent critics (for example, Buren 2004), especially because the agency inherent in this role is seen as a threat to artists and their works, which supposedly become mere pawns in the curator’s authorial vision. However, many curators, artists and others working in the cultural field today would neither accept the idea that an artistic creation is an isolated act, separated from the actions of those who communicate this work to others, nor the idea that curating is not an intrinsically creative and self-reflexive enterprise. Art theorist Boris Groys has explained why the previously separate roles of artist, who used to be responsible for the creation of art, and curator, who used to be responsible for the selection of art, have become merged.

It is simple to state why this situation changed: art today is defined by an identity between creation and selection. At least since Duchamp, it has been the case that selecting an artwork is the same as creating an artwork... Accordingly, since Duchamp there is no longer any difference between an object one produces oneself and one produced by someone else – both have to be selected in order to be considered artworks. Today an author is someone who selects, who authorizes. Since Duchamp the author has become a curator. The artist is primarily the curator of himself, because he selects his own art. And he also selects others: other objects, other artists (Groys, 2008, pp. 92-93).

Duchamp's early example of artist-turned-curator was supplemented by the work of unconventional museum curators who subjected their own field to a creative reformulation of its known parameters. In the 1920s, for instance, art historian and museum director Alexander Dorner worked with artists El Lissitzky and Moholy-Nagy to radically transform two rooms at the State Museum in Hannover, and wrote passionately about the influence of John Dewey's pragmatism on his thoughts about the museum, a place where different artistic disciplines "must become energies which transform life itself" (Dorner, 1958, p.18) because life – unlike traditional museums – is not static but mutable. In the 1950s and 1960s, environments and happenings such as those initiated by Allan Kaprow drew attention to the actual space of intervention or processes involved in innovative artistic strategies. More recently, artists like Martha Rosler, Damien Hirst, Hans Haacke, Christian Jankowski and many others have curated important exhibitions, expanding their practice and exhibition-making in the process. Teachers need to ask themselves how they can make use of these tendencies within the context of art education. What role can a selection of objects, or curating, play in the teaching of art? And can art education become more artistic by becoming more curatorial? Would a curatorial 'competence' add anything significant to the daily process of teaching art, or might it become yet another threat to artistic practice –focusing on knowledge and commentary rather than a hands-on creation of artistic works?

Artistic education and the art of living

Generally, commentary appears a posteriori; it comes after the event. The ball hits the back of the net in a live match and a split second later, the football commentator cries out: "Goal!" A baby is pulled out alive from the rubble in Aleppo and the TV news anchor announces the incredible event to the world. And in the same vein, many would agree that art critics and curators comment on and present or communicate works of art to an audience only after the works have been produced in the artist's studio or elsewhere. The second act acknowledges the first act's pre-existence and responds to it, thus underlining the separation of the two acts. Yet, what if we could sidestep this logic and stop thinking in terms of separate creative and responsive moments? What if we replaced this duality with the idea of a response that is already a creative act? Perhaps, like the Argentine writer Jorge Luis Borges, we could even imagine a product that only pretends to be a response and becomes creative on the basis of this very pretence.

The composition of vast books is a laborious and impoverishing extravagance. To go on for five hundred pages developing an idea whose perfect oral exposition is possible in a few minutes! A better course of procedure is to pretend that these books already exist, and then to offer a ré-sumé, a commentary. (Borges, 1993, p. 3)

Borges' intertextual rumination on imaginary books and his thoughts about the centrality of the reader in every writer has an undeniable status in the history of postmodern thought, from Foucault to Barthes, Eco and Baudrillard, and this is no place to echo that history. Yet, by shifting

our focus from the field of literature to that of art education, it becomes not only possible but imperative to discuss the relation between the creative activity that leads to the production of pieces of art and the analysis or curation of art.

In fact, such a discussion has influenced the discourse of art education in various contexts, and German research on art education and its exchanges about three pedagogical orientations (Fritzsche, Klimker & Peez, 2015), focusing on either the image, artistic thinking, or the subject (interpreted as the student and his or her interests), are a case in point. The first two orientations—often referred to as visual competence and artistic education respectively – have been particularly influential on debates on the aims of art education in the country. While visual competence places an emphasis on the analysis and reception of images, artistic education is usually defined as the cultivation of artistic thinking especially through the creation of artworks (Buschkühle, 2010). Visual communication is seen by some art educators as being too dependent on the mass media and an ideological critique of imagery as against an actual experience of art-making and the work of contemporary artists. A class that focuses exclusively on the image and its distinctive qualities and functions transforms education into a technocratic exercise in which students focus on an analysis of images rather than the more creative task of working directly or ‘dirtying their hands’ with images (Grünewald, 2015).

Instead of simply responding to images generated by the media, artistic education – or *künstlerische Bildung*, as it is commonly referred to in Germany – promotes creative modes of thought and is indebted to the “expanded art concept” of artist Joseph Beuys and to philosopher Wilhelm Schmid’s philosophy of the art of living (*Philosophie der Lebenskunst*). Within the context of artistic education, the art of living is understood as an enrichment of life through deep aesthetic experiences, creating pedagogical situations in which “art is method, medium and content” (Kettel, 2016, p. 182). Just as museum director Alexander Dörner’s work with El Lissitzky on the *Cabinet of Abstraction* (1927) at the Hannover Museum (an experimental cabinet showcasing modern abstract art on movable sections) was intended as an assemblage that would permit interactions of art, audience and exhibition space, artistic education encourages aesthetic reformulations of the known not only in the realm of art but also in everyday life, and hence can be linked to Schmid’s understanding of the art of living as a continuous, creative formation of life through different levels of perception.

An education which enables a conscious art of life and living together must, according to Schmid, contain the following three types of knowledge: knowledge of signs – having a command of the informal world of signs such as language, writing, and numbers; meta-knowledge – the ability to retrieve and evaluate information; and above all, creative thinking – setting free creative abilities to develop and transform individual ideas in relation to life experiences... (Pasuchin, 2005, p. 139)

Creative thinking is a central tenet in this philosophy because art is understood as a process that reflects a conscious quest for excellence and fulfilment, a careful shaping of life comparable to the Greek notion of *téchne tou biou*. Applied to the teaching and learning of art, this implies a humanistic education which contributes positively to the formation of different personal and social competences and combines cognition, perception, intuition and creative thinking holistically in a way that recalls Beuys’ approach to art and education (Buschkühle, 2013). At the heart of artistic education lie the actual processes of creative work, which in turn help to cultivate various mental faculties. Proponents of artistic education also stress the idea that creative work requires students to achieve a deep understanding of form, which is manipulated with the use

of one's imagination rather than a mere mechanical imitation of what is already known. Thus, artistic work in educational contexts brings students face to face with the unknown. In a parallel fashion, the teaching of art demands of its practitioners that they understand its complex, interdisciplinary nature and in order to achieve this understanding, they must be artists too.

I am convinced that art educators must be artists. Not to educate followers in their style, but to gain experiences in the processes of artistic work. Art educators need to be intuitive about the developing forms the students created and about their working processes, capacities and problems. Theoretical knowledge is not enough to foster the students' creative process. (Buschkühle, 2016, p. 69).

In their art classes, such artist-teachers make use of art projects that are not medium-specific but focus on topics and encourage students to become well-acquainted with a variety of media and artistic experiences, progressing in Beuysian fashion from a state of chaos, followed by movement and ending in form (Buschkühle, 2015, p. 68). The question we need to ask ourselves now is whether these experiences should include experiences in curating, given that artists are increasingly involved in curatorial practices. Does artistic education provide us with an effective base onto which an introduction to curating could be grafted? What educational goals and artistic skills would such an introduction satisfy?

Curating as a pedagogy of dialogue

While education has been a central goal of museums since their inception and has also formed an integral part of curatorial discourse for some years (for example, O'Neill & Wilson, 2010), the role of curating in the learning of art in schools is less clear. From the outset, we ought to distinguish between the role of the educator as metaphorical 'curator' of knowledge, curriculum and interpretations (Ruitenbergh, 2015) and the role of 'curator' as played out by students within the context of the artistic education they receive in schools. While the former is in many ways a necessary condition of teaching, given that teachers and curricula generally frame or organise a subject selectively, the latter is not often included as a significant competence or educational outcome in art education. Yet, if we take into account the important role played by curators in the presentation and interpretation of artistic practices today as well as the fact that artists nowadays regularly experiment with exhibition design, we should also articulate better what kind of impact these shifts may have on pedagogies in art education as well as the training of art teachers in universities. Why should an engagement with curatorial work be not only viable but called for in contemporary art education? What qualities would such an engagement add to the 'artistic thinking' strategies that are usually referred to in *künstlerische Bildung*?

Artistic education underlines the importance of perceptive, reflective, intuitive and transformative processes involved in art projects and frequently distinguishes these qualities from methodologies that focus exclusively on cognitive or analytic strategies, particularly in relation to mass media imagery. An exposure to the practices of curating within the context of artistic education would therefore involve students in activities that, for instance, result in a group or class exhibition in which they explore common issues and formal problems, and learn to negotiate end-results with peers. Using an approach that is analogous to the methods used in artistic education, educators can guide learners to work on topic-oriented projects that lead them to understand and reflect about the thematic, conceptual and formal relationships between their own creative activities in different media such as photography, collage and three-dimensional work and other objects, including other works of art, photographic documents and facsimiles, folk artefacts, printed matter and various materials lifted from popular culture. These connections between

objects are not restricted to the analytic and language-based parameters of art criticism but fall squarely within the remit of artistic practice once we assume, after Duchamp, that the selection of objects is what constitutes the central activity of post-retinal art. The relations that one uncovers between different items in a display are occasionally based on intuitive connections that do not necessarily repeat what is already known about a subject but produce—rather than merely reflect—meanings that redefine these objects through innovative interpretations of their technical functions, social contexts and accepted cultural connotations. To a great extent, curating is about making new dialogues possible: dialogues between adjacent works in an exhibition, dialogues between different artists whose works have not been previously shown together, dialogues between art and everything else. As Alexander Dörner suggested, these dialogues ultimately aim to transform life itself; they are transformative, not simply descriptive or based on the observation of factual or historical information. Art students acting as curators do not only engage with acts of cognition and recognition but involve themselves especially in acts of translation, invention and performance.

There is another dialogue that occurs within curating that cannot be ignored and has a special relevance for artistic education: the dialogue between an exhibition and its publics. The act of exhibiting one's own works and/or other objects and ideas is an act of presentation and therefore shifts attention away from traditional notions of self-expression towards the relationship between an exhibition's narratives and those who reinterpret these narratives by coming into contact with them in their guise as audience. The publics of art do not only include connoisseurs or collectors but refer especially to the multitudes of people from different backgrounds who became active or unconscious participants in the 'democratic' ideal of the public art museum following the French Revolution (Carrier, 2006). An artistic education that includes curating within its curricular framework therefore does not focus solely on the production of works of art but highlights the encounters that occur between art and people. Turning to Dewey again, we could summon the example of the arts in ancient Athens, where painting, poetry, drama and music formed an "integral part of the ethos and the institutions of the community" (Dewey, 2005, p. 6). Encouraging students to think through the various stages of exhibition-making inevitably makes them come face to face with the idea of art as experience, rather than think of works of art merely as physical things, a collection of precious objects stored in a museum or products driven by market concerns. While the material aspect of each work of art is undoubtedly a central component of an artistic experience, one cannot underestimate its ability to connect the producer of the object with other people. This connective quality of art necessitates a certain attentiveness on the part of the artist—not the sort of attentive-ness that thinks only of commercial viability or communicability but the sort that invites others into the process of experiencing life within art, with its pleasures as well as its upheavals. The curatorial is, as Jean-Paul Martinon writes, "a gift to oneself and then a gift between ourselves" (Martinon, 2013, p. 25). Exhibitions provide opportunities for the sharing of experiences between those who make art, those who conceptualise and build displays and those who appreciate or react to displays. Feedback from others about one's work and the public's aesthetic experience of curated projects stimulate further development, and it is a belief in the cumulatively educational effect of such experiences that leads some art educators to make them possible within the constraints of school timetables.

This experiential reciprocity leads us to a possible reinterpretation of the etymological origins of the word 'curate', derived from the Latin word *cura*, meaning 'care'. In ancient times, the curator would have been a Roman caretaker or bureaucrat and in medieval times, turned into a Christian 'curate' or parish priest. Later, the modern sense of a curator of precious things and

works of art emerged; the curator became a person who cares for and preserves valuable objects found in museum collections. In the realm of artistic education, perhaps we can supplement this modern usage with a moral dimension borrowed from the ethics of care and moral education (for example, Noddings 1984). An educational experience of curating does not only motivate students to care for beautiful things but also exposes them to others' frames of reference by teaching them to appreciate receptive, rather than self-engrossed, experiences. A rigorous approach to exhibition-making does not only involve students in the aesthetics of display but familiarises them with an appreciation of the value of artistic objects as well as a recognition of viewers' needs and perceptions. This sense of 'caring', understood as the apprehension of the realities of others as possibilities for ourselves, is an important objective that must be balanced by an equally important attentiveness to a disturbance of our values and ideas by others' interpretations. A real exchange of knowledge occurs in such instances, when one reality collides with a radically different one in the presence of art and the experience of 'dialogic learning' it affords. Artistic thinking should not be confined to a projection of the self onto others but forms part of a larger ecology in which the speaking subject is also a listener and the listener is also an agent who draws forth new narratives and disagreements from others.

Disagreements naturally play a part in the day-to-day activities of professional curators, whose work is also fraught with various institutional difficulties that are discipline-specific and tend to occur in the kinds of contexts in which curators rather than educators or students work. Nevertheless, there is a deeper lesson to be learnt from the challenge of employing issues of display as pedagogical tools in educational contexts. Art teachers who are more knowledgeable about curatorial strategies would be in a better position to help students understand and examine curatorial decisions during museum and gallery visits (Robins, 2005), while students learn that the arrangement of objects in exhibitions does not simply 'represent' a subject or idea but constructs it. Preparations for exhibitions are typically open-ended and undermine the idea of a single, 'correct' end-result. The same collection of twenty works, for instance, can be re-arranged in multiple ways, all with specific conceptual connotations. This possibility of endless re-tailorings of the same fabric is what makes the exhibition a particularly effective medium in collaborative settings and a strong strategy for developing the imagination within artistic education.

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Section IV
**IMPACTING ON PRACTICE... EXPLORING CURRICULA
AND PEDAGOGICAL ISSUES IN EDUCATIONAL CONTEXTS**

“The pebble in my shoe”: Dyslexic students and their views of examinations.

Deborah Chetcuti, Ruth Falzon and Stephen Camilleri

Abstract

This study narrates the views of six students with a profile of dyslexia regarding examinations. Following current trends in educational research, the study tried to give voice to the students themselves. In-depth interviews were carried out to find out what the students thought about examinations, the challenges they faced and how they thought examinations could be made ‘fairer.’ Results reported in this chapter suggest that dyslexic students experience real challenges when sitting for examinations due to their dyslexic profile; the time constraints of examinations and the stress and anxiety caused by their perceived inability to achieve at par with their peers. The students believed that these challenges hindered their performance in examinations. At the same time they hoped for a ‘fairer’ examinations system based on their involvement in the decision-making process that took into consideration their individual needs and well-being.

Keywords: dyslexia; high-stakes examinations; students’ views; “fairer” examinations.

Examinations at the end of secondary and post-secondary schooling are becoming increasingly more ‘high-stakes’ for students (Hopfenbeck, 2017). They provide students with the necessary qualifications for entry into further education or the world of work (Elwood, 2012) and therefore have a significant impact on students’ life chances and opportunities (Elwood, Hopfenbeck & Baird, 2017). Due to these ‘high-stakes’, examinations take over the life of students, influence their plans for the future, leave no time for extracurricular activities such as music and sport and leave them constantly under pressure to get good grades. Within such a context, doing well in examinations becomes the main goal of schooling (Elwood et al., 2017; Elwood, 2012).

If, based on this research, we acknowledge that examinations have an impact on all students’ lives, then we also need to recognise that “the effects of examinations may be magnified for those who enter the process already labouring under a disadvantage” (Gardner, Holmes & Leitch, 2009, p. 8). Students who enter the examinations race with such a disadvantage are students with a profile of dyslexia. Dyslexia is a complex condition that affects 10% of the student population (British Dyslexia Association (BDA), 2017) and research (Crisp, Johnson & Novacovic, 2012) suggests that dyslexic students experience greater challenges than non-dyslexic students when taking examinations. These challenges are usually associated with the general characteristics of the dyslexic profile that may lead to students having difficulties with reading fluency and accuracy, challenges with short term memory (ASM), and sequencing and organisation of ideas that all impact on the performance of students in examinations (see Bender, 2004; Lerner & Johns, 2011; Moats, 2001). What is problematic is that within the academic community there is

lack of scientific consensus about what dyslexia really is, how it can be identified and what can be done about it (Riddell & Weedon, 2006). As a result, not all examination boards and educators acknowledge the challenges faced by dyslexic students when sitting for examinations. Within the assessment community there is still the persistent notion that students with dyslexia face difficulties and challenges that are not very different from other students who have weak reading abilities or lower cognitive skills (Crisp et al., 2012).

This paper, therefore aims to draw attention to how students with a profile of dyslexia experience 'high-stakes' examinations. We chose to focus on students with a profile of dyslexia since as teachers, educators and parents we have often met students with dyslexia who shared with us the feelings of stress and anxiety they experience when sitting for examinations, the sense of frustration when they did not obtain the desired results and the overwhelming conviction that examinations were not treating them fairly. We therefore wanted to look at the experiences of these students as they ran the examinations race with 'a pebble in their shoe' (the dyslexia); the challenges they faced; and what they believed could make running the examinations race 'fairer'.

In line with the growing practice in educational research to include students' views about issues that directly affect them (Cook-Sather, 2006; Elwood, 2013), we wanted to look at examinations from the perspective of the students themselves. Like Elwood (2012) we believe that listening to the students narrating their personal experiences of examinations boards and policy makers identify key issues influencing examination practices and can be "immensely effective in bringing about significant changes to students' environment, learning and wellbeing" (p.105). We hope that in the context of the examinations arena, where the voice of the dyslexic student is significantly absent, the students' stories can provide insights and create a greater awareness about some of the challenges experienced by dyslexic students and influence discussion and policy-making about assessment practices that directly affected them and their life chances (Kirwan & Leather, 2011).

Defining Dyslexia

Traditionally, students with a profile of dyslexia are considered to be able children who have difficulties with reading and spelling (Crisp et al., 2006). The BDA (2017) defines dyslexia as:

a specific learning difficulty which mainly affects the development of literacy and language related skills. It is likely to be present at birth and to be life-long in its effects. It is characterized by difficulties with phonological processing, rapid naming, working memory, processing speed and the automatic development of skills that may not match up to an individual's other cognitive abilities" (para. 4).

This definition associates dyslexia with a discrepancy between the language skills of students and their general cognitive abilities. It also identifies some of the general characteristics associated with dyslexia.

While traditional definitions of dyslexia have focused on dyslexia as a learning difficulty with emphasis on what students lack in comparison to their peers, new research using neuro-imaging evidence shows that the dyslexic brain co-ordinates, receives and processes information differently (see Kirwan & Leather, 2011; Shaywitz, Lyon & Shaywitz, 2006). Current definitions of dyslexia therefore try to move beyond the difficulties and also describe a number of positive skills associated with dyslexia. These positive skills include "big-picture thinking, problem-solving and

lateral thinking abilities, an instinctive understanding of how things work, originality, creativity and exceptional visual spatial skills” (BDA, 2017, para. 4).

The Challenges Faced by Dyslexic Students in Examinations

Dyslexic students may experience a number of language difficulties that make written examinations much harder for them than for other students (Alexander-Passe, 2008; Crisp et al., 2012). These difficulties can include recognition of letters in the text, blurring of letters, letters seen as mirror images and a confusing combination of letters all of which make it more difficult to understand a text. In addition some might also have difficulty with ASM and motor skills (Crisp et al., 2012). The major consequences of the difficulties described are that when reading, dyslexics can add or omit words or read them incorrectly due to lack of reading fluency and automaticity (e.g. Hudson, Lane & Pullen, 2005; Lyon, Shaywitz & Shaywitz, 2003; Hudson, et al., 2008). This can give a different meaning to the question being asked and it can affect the comprehension of a text. There could also be difficulties with vocabulary and spelling, with sequencing of ideas and writing answers that are clear, logical and concise.

Another factor that influences dyslexic students during examinations is the time factor. Examinations are usually held within specific time periods and the amount of time given by examiners for students to respond to test questions is very important for students (Elliot & Marquart, 2004). For dyslexic students time is crucial because they take longer to write, have to make more effort to understand questions and they may have developed slow and vigilant methods of working in order to try and reduce their mistakes (Carroll & Iles, 2006). Within the context of a timed examination, dyslexic students show lower levels of performance than in untimed testing conditions (Elliot & Marquart, 2004).

The performance of students in examinations is also influenced by emotional factors such as motivation and test anxiety (Stenlund, Eklof & Lyren, 2017). Research evidence suggests that students with dyslexia experience greater amounts of anxiety and stress related worries than other students sitting for high stakes examinations (eg. Antonelli et al., 2014; Carroll & Iles, 2006). The anxiety is often manifested by physiological characteristics such as shaking hands, worries and emotional reactions during the actual examination (Woods, Parkinson & Lewis, 2010) that could interfere with students’ optimal test performance (Stenlund et al., 2017). The anxiety related to high-stakes examinations is also related to dyslexic students’ belief that they are ‘stupid’ when compared to others (Glazzard, 2010); that they do not have control over their own successes and that no matter how much effort they make they will not be able to improve their results (Humphrey & Mullins, 2002).

The challenges experienced by dyslexic students in relation to examinations are not just perceived difficulties but they are real challenges that can have serious consequences. The language accessibility of dyslexic students with the added anxiety and stress created by the fixed timed conditions of examinations does hinder dyslexic students from showing their knowledge, understanding and skills (Crisp et al., 2012). Students with a profile of dyslexia run the examination race with a pebble in their shoe, and although they can and do make it to the finishing line, running the race is much harder (Chetcuti, Falzon & Camilleri, 2017). This is an issue of fairness to which we shall now turn.

Making Examinations ‘Fairer’ for Dyslexic Students

Since examinations play such an important role in the lives of students, there has been an increasing drive world-wide to try and raise the standards and quality of examinations to ensure

that they are as “efficient, reliable, valid and fair as possible for all test takers” (Elwood, 2013, p. 207). In practice, examination boards try to develop a ‘fairer’ system of examinations by trying to create an educational ‘level-playing field’. They try to do this by developing tests that are psychometrically reliable, valid, neutral and objective since within the taken-for-granted academic cultures of examination boards these procedural safeguards are equated with ‘fairness’ (McArthur, 2016).

What is problematic about this notion of fairness is that it does not factor in the social consequences of assessment practices (Stobart, 2005). As argued by McArthur (2016), “students line up at the same starting place and have a clearly defined and common finishing line – but all other factors are ignored in the name of fairness” (p. 9). In reality, the educational playing field in relation to examinations can never be equal or level for all students (Murphy & Elwood, 1998). Examinations are usually designed for students who fit a societal norm, can read and write, can understand what is expected from them by examiners and have been well prepared for examinations (Gardner et al., 2009). Students with a profile of dyslexia do not adapt well to the way in which examinations are currently designed and this one-size fits all system of examinations (Elwood & Lundy, 2010) is not in their best interests.

Examination boards have tried to address issues of fairness and equity in relation to students with a profile of dyslexia by providing dyslexic students sitting for examinations with access arrangements (also called accommodations). These access arrangements could include “changes to where the assessments are administered, how long students have to complete assessment tasks, the type of resources available to students during the testing, access to assistive technologies and the ways in which students choose to demonstrate their knowledge and skills (Scott, et.al, 2014, p. 55). Other adjustments include the use of a scribe to write responses, a prompter to help students concentrate, and a reader to read questions (Woods et al., 2010). There is conflicting evidence as to whether these access arrangements actually make a difference in student achievement. Some studies (Crisp et al., 2012) suggest that access arrangements make no difference in the actual achievement of students while other studies (Elliot & Marquart, 2004) indicate that access arrangements result in a more positive examination experience and can reduce test-anxiety.

Context and Background of the Study

The study was carried out within the context of the Maltese educational system, more specifically related to the two ‘high-stakes’ examinations at the end of secondary schooling. These examinations are developed locally, by the Matriculation and Secondary Education Examination (MATSEC) Board and include the Secondary Education Certificate (SEC) examinations and those taken two years later at the end of post-secondary education, the Matriculation Certificate examinations. When introduced in 1992, the main philosophy behind the SEC and Matriculation examinations was to allow students to show what they “know, understand and are able to produce” (MATSEC Support Unit, 1992, p. 2). However, the examinations are also the main qualifications used for entry into post-secondary education, University and employment. This has resulted in a strong focus on academic and scholarly knowledge that may unintentionally create selectivity and put a number of students sitting for their SEC and Matriculation examinations at a disadvantage (Grima & Ventura, 2006).

With respect to students with ‘special educational needs’, including learning difficulties such as dyslexia, the policy of the MATSEC Board is to make the necessary examination access arrangements (EAA) to allow all candidates to show their competence. These EAA may include

extra time, a reader, a prompter or a scribe. They are granted depending on the severity of the condition and need to be supported by relevant attestations from professionals. The granting of EAA is still the subject of much debate within the MATSEC Board and among other stakeholders. Some stakeholders fear that granting EAA may inadvertently advantage students from middle class families whose parents can afford to obtain the necessary certification for their children and who are more aware of the provisions available. Others stakeholders mostly parents of dyslexic students complain that the Board is not generous enough with its provisions (Antonelli et al., 2014; Grima & Ventura, 2006).

Methodology

The main aim of the research was to obtain an in-depth perspective of dyslexic students' views on examinations. We wanted to tap the stories and narratives (Goodson, 2013) of dyslexic students in order to try and understand how the students were constructing their own views of examinations. Students opted to participate in the study on a voluntary basis and an opt-in procedure of recruitment was employed. Following ethical clearance from our university, a letter was sent to the Malta Dyslexia Association (MDA) informing them about the study and its main aims and objectives. This letter was circulated amongst all the members of the association and six students agreed to participate in the study. Consent forms were sent out to all the students and their parents informing them about the study, ensuring confidentiality and the possibility of opting out of the study at any point. The main criterion used for accepting the students who volunteered was that they had been professionally identified as having a profile of dyslexia. The six participants were between 16 and 18 years old and their profile of dyslexia ranged from mild to severe. Anonymity was respected. Rachel, Sarah, Andrew, and Paul had just sat for their SEC examinations, whilst Mark and Alex had just taken their MATSEC examinations. They all came from different backgrounds with parents who worked in diverse areas ranging from health care to education to industry.

The research made use of audio-recorded, semi-structured open-ended interviews. Interviews were chosen as the method of data collection because we wanted to try and “make sense of or interpret phenomena in terms of the meanings that people bring to them” (Denzin & Lincoln, 2005, p. 3). The interviews were carried out individually or in pairs depending on the preference of the participants. Two of the authors carried out the interviews so as to ensure a more authentic interpretation of the data. The face-to-face interaction (Fontana & Frey, 2005) allowed us to obtain data that was rich, trustworthy and authentic. The interviews were carried out in either the offices of the researchers or at the homes of the participants so as to ensure that they were at ease and in a safe and comfortable environment. Following Cohen, Manion and Morrison (2011), the interview was based on a number of open-ended questions that were determined beforehand and developed into an interview schedule to ensure consistency. However, throughout the interview the students were encouraged to speak openly about the questions and any other topics they wanted to discuss.

The data from the interviews were transcribed and analysed using a thematic approach. The analytic process followed what Goodson (2013) describes as “drowning in the data” (p. 40). Like Goodson (2013) we read the data slowly and over and over again, marking the emergent themes on the pages of the transcripts. Eventually, some of the themes became saturated and this indicated that these were the most salient aspects of the data collected. These key themes were developed into a reflexive, multi-voiced narrative (Denzin & Lincoln, 2005). The purpose was not to make any generalised statements about all students with a profile of dyslexia. Rather, through the data we wanted to present a bricolage of stories (Goodson, 2013) that provide clues and insights into students' experiences of examinations.

Running the Examinations Race with ‘The Pebble in my Shoe’: The Students’ Views of Dyslexia And Examinations

The six students who participated in the study were very much aware of their learning difficulty. The dyslexia or ‘the pebble in their shoe’ was part and parcel of their everyday life. They described dyslexia as a learning difficulty mainly related to language:

Dyslexia is a learning disability, or rather a different way of thinking. Dyslexia is when a person has trouble processing the written or spoken word. It is primarily related to language but it might also affect the way in which you process things within a short period of time. (Mark)

This definition is similar to traditional definitions of dyslexia given in the literature (see Crisp et al., 2012). However, in line with current neurological research that indicates that dyslexia might be due to differences in the way in which the brain is organised (MacCullagh, 2014), the participants also suggested that dyslexia was a different way of thinking rather than a disability:

...your brain works differently from someone else...it’s wired differently...if I’m not so good in spelling and writing...then I excel in other things like being creative...
(Alex)

Although aware of the difficulties associated with being dyslexic, the participants were also keen to focus on their strengths and “the positive skills” (BDA, 2017) associated with a profile of dyslexia:

I try to look at dyslexia from a positive side. I think that because of my dyslexia I can think out of the box. For example if you give someone a computer, they will probably just look at it...I see the inside of the computer and in my mind I have already visualised all the different things going on inside the computer. I have a different way of looking at things and that helps me to solve problems in a way that other teenagers do not even dream about. (Rachel)

Challenges Faced by Dyslexic Students

When the students were asked to define dyslexia, they tended to focus on the strengths and positive aspects of dyslexia rather than the difficulties associated with a dyslexic profile. However, when they were asked to give their views about examinations their perspective was less positive. They described examinations as dominating their lives and expressed their fear that examinations would limit their life chances and opportunities:

I used to be very worried because I used to think that how I perform in the exam is going to affect my whole life. If I don’t manage to get the exams I won’t be able to do what I really want to do...Sometimes you have opportunities but you cannot take them because you do not have the necessary qualifications. (Andrew)

They described a number of challenges that they faced due to having to run the examinations race with ‘the pebble in their shoe’. For them examinations did not provide opportunities to showcase their strengths, created unnecessary stress and anxiety, and limited their true potential and future opportunities in life. Mark very eloquently described the challenges posed by examinations for students with a profile of dyslexia:

How can I ever achieve my full potential if the way in which exams are designed and structured with ridiculous time constraints act as a hindrance rather than a way to prove my worth? Must all the work, effort and struggle throughout a course of studies be valued on a single day? Should sitting for an examination create so much anxiety and nervousness? The problem that examiners fail to understand is that these negative experiences have repercussions. Self worth is destroyed along with self-respect and the notion that in life you get what you deserve. I wonder how many great minds were lost simply because the type of intelligence and ideas they had were not the ones the examiners wanted?

Mark's concerns are very realistic concerns and are all linked to fears expressed by students in other studies (see Elwood, 2013) that without the necessary qualifications associated with examinations, one's chances to be successful in life become very limited.

As we read through the student narratives it became clear that there were three major challenges that hindered dyslexic students from performing at their best during examinations. These were (1) language difficulties; (2) time constraints and (3) the stress and anxiety caused by the high stakes of the examinations.

Language Difficulties

The characteristics of dyslexia include difficulties with reading, spelling, sequencing of ideas and omitting or adding words when reading (Bender, 2004; Lerner & Johns, 2011). The participants described having difficulties with reading the questions and not understanding what the examiner was asking:

...I had a question and I could not understand what they wanted from it...the wording was really confusing...it's not that I didn't know the answer. I simply didn't know the examiner's expectations... (Sarah)

Another common difficulty associated with dyslexia is the incorrect reading of part of a question that may lead to giving the wrong answer. Alex described his disappointment at not getting a good mark, not because he did not know the answer but because he had not read the question correctly:

I had a test and after the teacher showed me the paper and I lost 20 marks because I didn't read the question properly. The question was 'not using this theory' and I read it 'using this theory'. What I wrote down was perfect and the teacher himself told me: 'the answer is perfect but I can't give you a single mark for what you wrote as you didn't answer the question asked'.

As described by Humphrey and Mullins (2002), this sense of disappointment was made even worse by teachers and examiners who often point out that a little extra care or re-reading the question would help. In reality, the solution is not so simple because, as Mark explained, reading a question incorrectly is not something that he does out of carelessness and no amount of reading and re-reading will allow him to identify his mistake:

I've experienced this in my exams where instead of reading one thing I read another thing completely different without noticing and then obviously the question or the essay will be out of point. I read the question countless times and check my work but it doesn't seem to help as I repeat the same mistake countless times...

Another very frustrating aspect of examinations for students with dyslexia is being penalised for spelling. Some examiners would argue that if you sit for a language examination, then knowing the correct spelling is fundamental. However, for students with dyslexia, spelling is an issue that they know will place them at a disadvantage even before they start the examination. Alex explained how with regard to spelling, his dyslexic profile or ‘pebble in his shoe’ was hindering him from running the examinations race at his full capacity:

In English... spelling is penalised and I always knew that I was starting out from 60 instead of 100 as the first 40 marks were always out as they are the marks for spelling...I was already starting at a disadvantage...The teacher used to tell me ...it’s a very good essay and your writing is very creative.

Time Constraints

The participants also mentioned that time constraints hindered their performance in examinations. This is not an actual characteristic of dyslexia but as explained by Riddick (2000), dyslexic students take longer to prepare for examinations, and to read questions and write out answers. Therefore, time constraints are still a major challenge for dyslexic students, and as explained by Alex, dyslexic students take much longer to prepare for examinations:

I think that everyone has to go through examinations but with the dyslexia it used to take much longer for me...if I used to spend three hours on a subject someone else could possibly spend half the time. It’s more time consuming...It takes much more time to read and so it takes much longer...

Furthermore, during the actual examinations the students felt that they were racing against time and this did not allow them to show all that they knew. For Andrew examinations were simply:

A race against time...you can’t show what you really know because you have to write very fast and because I am writing very fast I end up writing the words badly... and I have no time to revise my work...

Mark further explained how when working out exam papers at home at his own pace he was calm and managed to work faster and more accurately. Knowing that he had a time limit created greater pressure that did not allow him to perform well:

...the added tension and stress of the exam and the mandatory time limit imposed made me take longer to work out questions and I never seemed to finish the exam paper...the time limit penalises people who are not capable of working as fast as others...

Stress and Anxiety

As argued by Stenlund et al. (2017), “emotional and motivational factors, such as test anxiety and test-taking motivation may also have an impact on test performance” (p. 5). The students in the current study, similar to students in other studies (e.g. Carroll & Iles, 2006; Woods, et al., 2010), described going through periods of great anxiety when sitting for examinations. They felt stressed prior to the examination, during the examination and after receiving their examination results.

Before they sit for examinations dyslexic students experience a large amount of stress and anxiety. This is caused by the belief that they are not in control of their own success (Humphrey &

Mullins, 2002) and that because of ‘the pebble in their shoe’ they will not make it to the finishing line. This leads to a sense of learned helplessness and low self-esteem that creates additional anxiety. As described by Alex:

I used to feel very badly about the fact that I knew that I deserved a B but I knew that I was going to get a C. That was something that bothered me...It used to make me feel down because I knew that the marks did not reflect my true potential. A pity but there was nothing I could do...

The participants also described a number of physiological responses directly related to anxiety as they sat for the actual examination. Alex described how in his first exam, *“I had a big migraine and the first half of the exam I hardly knew what I was doing...”* and Paul stated that he spent the whole examination, *“physically shaking...I could hardly keep the biro in my hand it was shaking so much.”* Rachel described the panic state she goes into before examinations:

I stay thinking...I’m not going to pass...I’m not going to pass...but then I try and calm myself...yet the thought that I am not going to pass does not go away...I eat a lot of chewing gum...but I am really pressured. I jump up and down and go running...I try to tire myself out because I spend two days not sleeping before the exams...I worry because although I know that I did all that I could...I still think that I am not going to pass.

Dyslexic students also undergo periods of extreme anxiety when they actually fail their examinations. They identify failure in examinations with a low sense of self worth and generalise this to every aspect of their life, seeing themselves as failures (Alexander-Passe, 2007):

...the examinations put me through a second depression...they led me to a very dark place...during the exams and a bit after when I failed all my examinations...the pure stress the pressure...the idea that I was never going to succeed in life because I couldn’t get these marks...I couldn’t face it...(Paul)

The stories of these participants suggest that the negative impact of examinations on dyslexic students is far more complex than what on the surface appears to be a quantitative judgement of ability. The social and emotional scars caused by an examination grade can have more far reaching consequences that determine the wellbeing of teens and their future aspirations. This places greater responsibility on examination boards to ensure the development of examinations that are ‘fairer’ for dyslexic students. As argued by Hopfenbeck (2017) researchers and practitioners need to try and find a balance between the “challenges of high-stakes testing and students’ wellbeing” (p. 1).

Reaching the Finishing Line: Making Examinations ‘Fairer’ for Dyslexic Students

Ensuring fairness in examinations is an ongoing concern for examination boards and non-discrimination is one of the basic rights of each individual child (Elwood & Lundy, 2010). Fairness may be defined in many ways but in relation to assessment practices it means developing practices “that have the potential to reduce the effects of a variety of disadvantages that learners may experience” (Gardner et al., 2009, p. 3). Mark described some of these disadvantages:

...I think that the examinations board does not have a good knowledge and understanding of the challenges faced by dyslexic students. The board seems to

try and do its best to hinder dyslexic students. Why must an exam be purposefully designed in such a way that most people won't ever complete the paper? Why must exams focus on attempting to catch the students out on things they don't know rather than encouraging them to show off all that they have learnt?

This 'pebble in their shoe', makes reaching the finishing line more painful and difficult for dyslexic students when compared to students who do not have dyslexia. The differences amongst students and social influences need to be taken into consideration when considering fairness. As Stobart (2005) argues because of the differences amongst students at the starting point "we will never achieve fair assessment but we can make it fairer" (p. 285). As we talked with the students we wanted to obtain their views as to what they believed could make examinations 'fairer' for them. The participants associated making examinations 'fairer' with being given better Examination Access Arrangements (EAA). They felt very dependent on EAAs since they believed that these could remove some of the disadvantages they had because of their profile of dyslexia:

...I would argue that if I need to wear glasses I am allowed to wear them in the exam. This does not mean that I am being given an advantage over someone who does not need glasses. With dyslexics it's the same...if you give them help you are not giving them something extra but you are giving them what they need to start off at par with the others who are not dyslexic... (Andrew).

Andrew's suggestion reflects the concept of 'compensatory justice' (Cribb & Gewirtz, 2003) that tries to create a 'level playing field' for all students. The main problem with EAAs is that they are not given to all dyslexic students automatically. In some cases, in spite of professional and expert advice, students are denied the EAAs. This left the students feeling very frustrated by the fact that they were not receiving the support that would help them run the examinations race at a 'level-playing field'. Paul described this disappointment:

I needed a reader and a scribe and I went to a psychologist to prove that I needed this help...but I was still denied the help needed...I was gutted and I was honestly and genuinely scared. I knew for a fact that I wasn't going to do as well as I could have done...it worried me and I was right to be worried because it affected my grades...If I had been given the concessions I deserved I would have been less nervous before the exam...

One of the main reasons that students are not granted EAAs is the fear that these may advantage dyslexic students over other students (Grima & Ventura, 2006). The arguments put forward by Andrew and Paul indicate that this is not the case, but the EAAs mainly give dyslexic students the support they need to start the examination race with a positive attitude. This is emphasised by Mark, who in line with research carried out by Elliot and Marquart (2004) suggests that EAAs can reduce examination anxiety:

Obviously it is hard to say whether my grade would change or not. If I had extra time my level of anxiety would probably have been less and even if I did not use that extra time, it being there at the back of my mind that I had that extra 15 minutes helped calm me down a lot (Mark).

When thinking of suggestions that would make examinations fairer for them, the students mentioned compensatory measures that they thought would help them achieve better. These

included a better presentation of the paper with *“a larger font on the examination paper”* (Sarah); oral examinations so that they *“would be able to explain much better than when trying to write things down”* (Alex); extra time *“so that I don’t have to leave any questions out”* (Andrew); use of computers *“if I did not have a computer the examiner would not have been able to read my answers”* (Rachel); more marks for coursework as this *“reflects the work and effort you would have put in throughout the whole year”* (Mark); a better examination environment *“in a nicer location and if possible in your own school”* (Paul).

The participants envisaged a ‘fairer’ examinations system as one that provided them with opportunities to compensate for having to run the examinations race with a pebble in their shoe. Although they critiqued the examinations system, they still used the language of examiners and educators who look at ‘fairness’ through the psychometric lens of reliability and validity. Sarah managed to think outside the box and asked to be listened to and for greater participation in the decision-making process regarding examinations. Likewise, Elwood et al. (2015) suggest that students *“have important contributions to make”* (p. 34) to help us better understand what makes assessment ‘fairer’ for students with a profile of dyslexia. In Sarah’s words:

I would change the system. It would be hard but I think that someday it will happen. I would see more what the students want. I never met the people at the exam board...I don’t know who they are but if you knew these people you could go and talk to them and tell them what you think...if they knew what I was thinking they could make examinations more friendly...I am not talking about just dyslexia friendly but young people friendly...

Discussion and Reflections

The collective voices of the dyslexic students in this study revealed several issues about the impact of examinations on the lives of students with a profile of dyslexia. Although the study was based on the views of six participants and cannot be generalised to all students with a profile of dyslexia, the experiences narrated in this study provide a number of insights that can be used positively by examination boards and educators to make ‘high-stakes’ examinations ‘fairer’ for dyslexic students. The major implication of the students’ narratives is that dyslexic students do experience real difficulties in examinations associated with their dyslexia that does not allow them to perform at par with their peers. These challenges that, as described by the students themselves, are mainly related to language difficulties in reading examination questions, spelling, ASM, sequencing of ideas and having to perform within rigid time constraints, do not allow the dyslexic students to perform at their best and show what they know and can do.

The participants of the study believe that the traditional written examinations that form what McArthur (2016) describes as the cultural paradigm of current examination procedures do not show who they really are. In their definitions of dyslexia, the students focused on their positive skills, their creativity, their ability to think outside of the box and to problem solve. However, these positive characteristics are not assessed within the ‘one-size-fits-all’ examination system (Elwood, 2012). In the students’ view, examinations assess only the ‘cultural capital’ that is considered of value (Klenowski, 2009) and places them at a disadvantage. The major worry is that this disadvantage will influence life chances and opportunities and as argued by Glazzard (2010), *“until the education system begins to recognise and celebrate success in a range of areas, learners with dyslexia will continue to be classified and marked out as failures”* (p. 68).

What is also very evident in the students’ narratives is that as pointed out by Stenlund et al. (2017)

“the test may measure more than the test developers intended (i.e. not only the proficiency of the test-taker but also how he or she manages to cope with the situation as such” (p. 4). The students in the study repeatedly state that the feelings of frustration, anxiety, anger and low self-esteem, interfere with their performance on examinations. Unfortunately, examination boards seem to be more pre-occupied with maintaining examination rigour associated with reliability and validity and are reluctant to recognise the emotional impact that examinations have on dyslexic students (Kirwan and Leather, 2011). Like Hopfenbeck (2017) the students call for ‘fairer’ examination systems and a better balance between the challenges of high-stakes testing and their personal well-being.

As we listened to the students’ views of what they believed would make examinations ‘fairer’ for them, we realised that the students equated ‘fairness’ with ‘equality’. Their view of ‘fairness’ was highly dependent on a compensatory model of social justice (Cribb & Gewirtz, 2003) that allocated resources and opportunities in order to try and remedy the disadvantages they experienced. Participants in fact believed that ‘fairness’ could be attained through the provision of Examination Access Arrangements such as extra time, a scribe or a reader and that this would help them to perform better in examinations. Drawing on sociocultural theories that view learning as not neutral (Elwood & Murphy, 2015) we would critique this approach and argue that it is “naïve given our understanding of the very different sociocultural experiences of students” (Klenowski, 2009, p. 83). Like Stobart (2005,) we would argue that, “fairness is fundamentally a sociocultural, rather than a technical issue” (p. 275). With respect to dyslexic students this redefinition of ‘fairness’ implies that examinations should as stated by Sarah look to the needs of the students and include “the valued knowledge and skills” (Klenowski, 2009, p. 8) that reflects their learning and understanding rather than trying to fit them into the norm.

These students’ narratives present key messages for examination boards, educators and policy makers. The students presented strong ideas that change is needed in the current form of examination systems, in order to “ensure that all students have improved opportunities to demonstrate their learning” (Scott et al., 2014, p. 67). Like Scott et al. (2014), we would argue that broad-based transformation of the examination system requires substantial:

...effort and resources to be put into effect. Nevertheless there are many minor changes and adjustments that could be easily implemented and these would have a significant impact on the learning success and achievement of children who experience challenges.” (p. 63)

Some of these minor changes were suggested by the students themselves and included simple adjustments such as changing the colour of the examination paper, using a larger font, including oral and practical examinations together with written examinations, allowing the use of technology such as computers and having the examinations in a familiar setting such as the students’ own school. These adjustments would minimise some of the discomfort of having to run the examinations race with ‘the pebble in their shoe’, would not put extra strain on human and financial resources of examinations boards and, above all, would not taint the objective of the examination.

In the long term however, the students believe that there needs to be a complete transformation of the examination system in order to ensure ‘fairness’ and their well-being. Sarah suggested that this can be done by involving the students themselves in the decision making process about examinations and putting the individual needs of students at the heart of all assessment practices.

This is a shift to “a participatory justice” (Cribb & Gewirtz, 2003) that is based on the concepts of human rights and extends to children’s rights and providing students with the “opportunities to participate meaningfully throughout the decision making processes” (Elwood & Lundy, 2010, p. 346). Therefore, supporting Sarah’s recommendation, like Elwood (2013) we would argue that the key message for examination boards is that they should “actively support and embed the consultation and participation of young people’s views” (p. 108) in any decision making about examinations. This is a shift in current views of assessment from “something that is being done to students to something that is being done with and for the students” (Klenowski, 2009, p. 89).

Conclusions

This research study contributes to the emerging literature regarding students’ views about examinations more specifically in relation to students with a profile of dyslexia. The experiences of Rachel, Sarah, Andrew, Paul, Mark and Alex are a window into the challenges they faced as they ran the examinations race with ‘the pebble in their shoe’. They shared their frustrations, anxieties and hopes for a ‘fairer’ examinations system. We hope that examiners, educators and policy makers will hear their voices and initiate more informed dialogue and planned engagement with dyslexic students to allow them to be successful in the examinations race with or without the pebble in their shoe.

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Section IV
**IMPACTING ON PRACTICE... EXPLORING CURRICULA
AND PEDAGOGICAL ISSUES IN EDUCATIONAL CONTEXTS**

Maltese teachers' experience of the implementation of inquiry-based learning in science.

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Josette Farrugia

Abstract

This paper looks at the first steps taken by a group of Maltese teachers participating in the EU funded FP7 project aimed at promoting inquiry-based learning (IBL) in Mathematics and Science classrooms across Europe, PRIMAS, by providing long-term professional development (PD) to teachers during the introduction and implementation of IBL in an examination-oriented culture. Data were obtained through teachers' reflective journals and interviews. Difficulties encountered and ways of overcoming challenges are presented. The main difficulties encountered may be classified as systemic difficulties; barriers due to teachers' personal beliefs and attitudes; and student-related difficulties. Peer support, support of school authorities, and long-term continued PD are needed to help teachers move away from traditional teaching and implement IBL strategies.

Keywords: science education; inquiry based learning; student-centred learning; teacher professional development.

Introduction

Modern curricula and programmes include various lists of desired '21st century skills' or 'Key competences' needed by future citizens such as reasoning, critical thinking, creativity and problem solving, deeper learning, collaboration and communication, and learning how to learn (Annetta, Cheng & Holmes, 2010; European Commission, 2007).

Traditional methods of teaching and learning are deemed inadequate for helping students acquire the desired skills. While efficient for transmitting large quantities of material to students in a short time, they tend to promote passive and superficial learning with low retention and are least effective in helping students to attain knowledge and understanding. As Osborne and Collins (2001) put it, in these situations pupils are frequently "frog-marched across the scientific landscape, from one feature to another, with no time to ... absorb what it was that they had just learnt" (p. 450).

In addition, an increase in motivation and an increase in the number of students taking science-

related careers are all highly desired results of science education. Recent reports (e.g. OECD, 2006) have shown an alarming decline in the number of students opting for University courses in science-related fields and this is attributed to their science education experience. The 2005 Eurobarometer study on 'Europeans, Science and Technology' reports a high level of dissatisfaction with the quality of science education in European schools. The majority of the respondents were of the opinion that "science classes at school are not sufficiently appealing" (p. 99). Pedagogy has been identified as a potential major influence on both situational and personal interest (Krapp & Prenzel, 2001) and in maintaining curiosity in students (OFSTED, 2013).

Student-centred pedagogies that actively involve students are seen to be better suited for 21st century aims and competences. One of these pedagogies is Inquiry-Based Learning (IBL) through which students can learn content knowledge, epistemic practices as well as soft skills such as collaboration (Hmelo-Silver, Duncan & Chinn, 2007). However, a study reported in Maaß and Euler (2011) showed that the practice of IBL in European schools was rather limited.

Background

IBL

There are several interpretations of the terms inquiry and IBL but essentially student inquiry should "mirror what scientists do" (Martin-Hansen, 2002 p. 35). Two definitions of inquiry that have been influential to the current understanding of the pedagogy are those outlined by the National Research Council (NRC) (1996) and Linn, Davis and Bell (2004) respectively.

The NRC (1996) defines inquiry as a: "multifaceted activity that involves making observations; posing questions; examining books and other sources of information to see what is already known; planning investigations; reviewing what is already known in light of experimental evidence; using tools to gather, analyse, and interpret data; proposing answers, explanations, and predictions; and communicating the results. Inquiry requires identification of assumptions, use of critical and logical thinking, and consideration of alternative explanations" (p. 23).

Linn, Davis and Bell (2004) include other processes in the description of inquiry: "the intentional process of diagnosing problems, critiquing experiments, and distinguishing alternatives ... researching conjectures, searching for information, constructing models, debating with peers, and forming coherent arguments" (p. 4).

This definition also includes a way of how inquiry may be carried out by including 'debating with peers' in the definition. Many forms of inquiry in fact involve collaborative learning.

Several reasons for using IBL have been identified: "students acquire knowledge of how to do science as a common endeavour, they learn about the nature of science and the scientific content" (Bell, et al., 2010, p. 350). Similarly, Bunterm et al. (2014) consider IBL to be: "characterised by activities that encourage the acquisition of both science content knowledge and process skills" (p. 1939). Kirschner, Sweller and Clark (2006) find this to be problematic. They argue that IBL and other constructivist approaches are less effective and less efficient than direct instruction due to the resulting heavy cognitive load. However, they assume that inquiry is always open, unguided and identical to open discovery learning. As Hmelo-Silver et al. (2007) point out, many forms of inquiry and other constructivist approaches employ extensive scaffolding to help students reduce the cognitive load and support student learning. Cobern et al. (2010) found that students acquired comparable understanding of science subject matter irrespective of mode of instruction

(direct vs inquiry) but the authors believe that inquiry has the additional benefits of generating greater interest, better retention as well as an exposure to scientific inquiry.

Other reports of research investigations show that IBL leads to better learning compared to teacher-centred instruction (e.g. Sesen & Tarhan, 2011, p. 209). Sesen and Tarhan (2011, p. 209) cite Adler (1982) who claims that “all genuine learning is active, not passive. It involves the use of the mind, not just the memory... in which the student is the main agent, not the teacher” (p. 209). Teachers are aids to the process of learning rather than sources of knowledge who attempt to transfer their knowledge to students’ minds. This implies that a change in the way students learn and the quality of what they learn necessitates a change in what teachers do since: “we cannot expect students to change what they do if we are content for teachers to continue doing what they have always done” (Harwell, 2003, p. 2). In IBL the teacher occupies a less central role and actively involves students in the learning process. However, teacher and student input in inquiry activities vary. The greater the student involvement, the higher the inquiry level. A number of authors present a continuum of inquiry levels or matrices to describe levels of inquiry and which components of the inquiry process would be enacted by the teacher and student respectively (Fradd, Lee, Sutman & Saxton, 2001; Martin-Hansen, 2002; Olson & Loucks-Horsley, 2000; Tafoya, Sunal & Knecht, 1980). Science content varies in type and students’ inquiry skills develop with time. It is therefore necessary to use different kinds of inquiry according to the specific needs and contexts. It is equally important to increase the inquiry level of activities over time as students are likely to benefit more when engaged in such activities.

It is evident that teachers need a good understanding of the different aspects of inquiry in order to be able to vary the teaching and learning experiences according to their students’ needs (Martin-Hansen, 2002).

The increase in student involvement in the learning process has been found to increase students’ interest and motivation at all ages. Several studies document the positive effect including long-term effect of IBL on student interest and attitude to science (Berg, et al., 2003; Gibson and Chase, 2002). IBL activities created an environment that “fostered and nurtured that students’ innate curiosity and questioning and the sharing of ideas” (Gibson & Chase, 2002, p. 701).

The activities of a collaborative nature that are frequently involved may be one reason for the increase in interest. Cooperative learning has been found to increase students’ interest in particular science topics (Day & Bryce, 2013). The relation to real life situations, contexts and problems is another possible reason for the increase in interest.

Implementation of IBL

Implementation of IBL is no easy task for teachers. Firstly, teachers need a clear understanding of what IBL entails. Many interpretations exist and Martin-Hansen (2002) points out that many teachers believe that the term applies to almost anything that they do and publishers cause further confusion when they promote all kinds of text-books by claiming that they are inquiry-oriented. Teachers’ beliefs and attitudes may also hinder the adoption of IBL (Windschitl, 2002). It is not easy for teachers to change their classroom practices from teacher-centred instruction and use of structured inquiries to a student-centred one in which they facilitate more open inquiry (Windschitl, 2002). Teaching through IBL requires confidence and skill on the part of the teacher. Teachers require content and procedural knowledge and understanding of the inquiry process (Shedletzky & Zion, 2005). Inquiry actively involves students in the learning process, giving them autonomy however Mayer (2004) advises caution and guidance since: “when students have

too much freedom, they may fail to come into contact with the to-be-learned material” (p. 17). The challenge for teachers “is to know how much and what kind of guidance to provide and to know how to specify the desired outcome of learning” (Mayer, 2004 p.17). All these demands, changes and expectations imply that changing classroom practice requires teachers to develop understanding, attitudes and skills hence the need for professional development (PD).

Professional Development

Eraut (1977) defines teacher development as: “The natural process of professional growth in which a teacher gradually acquires confidence, gains new perspectives, increases in knowledge, discovers new methods and takes on new roles” (p. 10), all of which are certainly required in the adoption of IBL.

Eraut believes that teacher development is influenced by three factors: the knowledge, experience and personality of the teacher; the school context; and professional contact and discussion outside the school. Any proposed educational improvement or reform needs to be accompanied by PD (Guskey, 2002) in order to encourage and support teachers with the change.

There are various types of PD programmes and courses but all aim to bring about improvement or change in understanding, attitudes, beliefs and practice and ultimately improved student learning. In fact a PD programme is often considered to be successful if it has an impact on classroom practice and learning outcomes (Joyce & Showers, 1980). Guskey and Sparks (1991) believe that while essential for improved learning outcomes, PD alone may not be enough.

PD programmes intended to help teachers change from traditional teaching to IBL must not only provide new awareness, new knowledge and experiences, and facilitate development but should also support anxieties, concerns and difficulties resulting from the proposed changes. Guskey (2002) recommends support, continued follow-up and pressure to ensure that teachers persevere with the implementation of the proposed change until positive feedback is available which is likely to re-inforce and encourage the new practice.

Method

The context

In 2007 Malta participated for the first time in TIMSS at Grade 8 and placed 30th out of the 49 participating countries in Science (Martin, Mullis & Foy, 2008). While 21% of Maltese students reached the Advanced and High Benchmarks, 52 % of the students were at the Low (23%) or below the Low international benchmark (29%). These results are characteristic of education systems in which students experience frequent testing and high stakes examinations as main forms of assessment. According to the Assessment Reform Group (2002) testing motivates high achievers while lower achievers experience a lowering of self-esteem resulting in an increase in the gap between high- and low-achieving students.

Yearly national examinations as well as school based tests and examinations tend to dominate in secondary schools especially during the last two years of compulsory education which prepare students for the Secondary Education Certificate (SEC) Examinations. These examinations determine progression into post-secondary institutions. The examination-oriented school culture is accompanied by rather traditional classrooms with teacher-centred instruction in which the transmission mode is the predominant method of instruction (Borg, 2013; Gatt, 2011; Pace, 2000).

The performance in TIMSS prompted the Maltese science education community to look at the situation in local science classrooms. Among the proposals is the adoption of IBL as a main method of instruction (MEEF, 2011).

Between 2010 and 2013, the author and colleagues from the Faculty of Education of the University of Malta participated in the FP7 project aimed at promoting IBL in Mathematics and Science classrooms across Europe, PRIMAS. This was one of a number of projects launched and supported by the European Union as part of its seventh framework programme to promote IBL following the publication of the Rocard report (Rocard et al., 2007). A main aim of the project was to provide long-term PD to teachers as a means of support during the introduction and implementation of IBL.

The PD course

Twenty-five teachers from five state schools who participated on a voluntary basis, were provided with PD for two years. Small groups of five teachers met every two weeks with a PD facilitator. The meetings took place during school hours within the school. The teachers were given a reduced teaching load to enable them to attend the PD sessions, prepare new lessons and resources, and reflect on their practice. During the meetings the teachers reflected on issues and practices related to IBL and to how inquiry may be encouraged and promoted; and worked on exercises and activities intended to help them reflect on their practice and on their students. These activities were part of PD modules developed for the PRIMAS project (PRIMAS, n.d.) and dealt with topics such as the use of questioning techniques to promote student thinking and helping students with collaborative learning among others. During the meetings tasks that teachers were required to try out in class were set with a deadline. There was also time for sharing experiences especially those related to their attempts at trying out IBL.

Aims and research questions

The study aimed to investigate Maltese science teachers' experience of the introduction of IBL in their teaching, focusing mainly on the difficulties encountered, challenges faced and support needed as they attempted to move away from the traditional classroom to a more student-centred one in the context of an examination-oriented school culture. The research questions addressed in this paper were:

- What were the challenges that teachers faced when introducing IBL in their teaching?
- What help and support do teachers need in the implementation of IBL?

Participants

The teachers who participated in the project did so on a voluntary basis. Five state secondary schools were selected and a meeting for teachers was held within each school in which they were informed about the project and invited to participate. The teachers who opted to participate were required to keep a reflective journal recording their experiences.

Six of the participant teachers were interviewed. Sampling was purposeful (Patton, 1990): a teacher who taught a group of high achieving/low achieving students; teachers from boys' and from girls' schools (state schools were single-sex schools at the time of the study); a teacher identified by a PD facilitator as one who had successfully taken up IBL.

Data collection

The results reported in this paper were derived from journal and interview data. The two

different sources of data provided a means of triangulation in an attempt “to seek convergence and corroboration through the use of different data sources and methods” (Bowen, 2009, p. 28) and as “cross-data validity checks” (Patton, 1990, p. 188). Measures to maximise reliability and validity were taken at every stage of the study.

The teachers participating in the project were required to record their experiences in a journal. For each entry, teachers were asked to give details of the subject taught, the topic, the date, teaching strategies used and IBL processes targeted. They were encouraged to include descriptions of experiences, their reflection and also actions required. Journal entries were written throughout the duration of the PD course. Reflective journals were collected every term.

Semi-structured interviews with teachers were carried out in their respective schools. The selected teachers were invited to participate in the interviews intended to evaluate the PD course and to study their experience of implementing IBL. All teachers approached agreed to be interviewed. An interview guide with questions, probes and prompts was used. The guide consisted of a number of sections. One section asked for background information about the teachers such as the initial teacher education course they had followed and their teaching experience. Other sections were intended to determine teachers’ beliefs and views about teaching and learning, about IBL and their experience of using IBL. Teachers were also specifically asked to give feedback about the PD sessions and the experience as a whole. Questions were read using the same sequence and the same words in each interview. Most questions were open-ended in order to allow respondents to raise issues that they felt were important.

The interviews were audio-recorded and transcribed soon after being carried out taking note of contexts and non-verbal information.

Data analysis

Data from both the journals and interviews were qualitative in nature. Analysis involved reading and making sense of the data. Data from both sources were analysed using Grounded Theory methods (Strauss & Corbin, 1994). Interview transcripts and journal entries were read and re-read identifying major themes, categories and case examples (Bowen, 2009). Through different levels of analysis the data were coded using descriptive codes as well as less specific and more general codes. The journals provided an account of the experience of implementing IBL as it happened together with teachers’ reflections on the matter. In the interviews teachers spoke about their views as well as their experience. After completing the analysis of data it was evident that many themes were common across the different sources. The common themes integrated data gathered from different sources. The analysis procedure was repeated several weeks later to confirm the emerging themes.

Results

Identification of challenges encountered and areas where support is required

Challenges reported by the teachers fall under three categories. Some were *teacher*-related: a result of their beliefs and understanding or due to their new role in the inquiry classroom. Other challenges were a result of difficulties *students* were facing. Undercurrents of examinations and the influence of *systemic* challenges on classroom practice were also evident.

Systemic challenges

Lack of time, lengthy syllabi and high stakes examinations were three closely linked systemic

challenges that were mentioned explicitly but were also behind many other difficulties encountered.

The most frequently mentioned issue was the time factor. All the teachers mentioned time constraints at some point or other. The most common concern was that these student-centred activities were time-consuming and consequently teachers could not afford to use them except on rare occasions. This is a direct result of the examination-oriented environment where teachers are concerned about the voluminous syllabi that must be mastered by students in a relatively short period of time. In such situations teacher-directed transmission of knowledge is considered to be more time-efficient than student-centred approaches even though teachers can see the difference that teaching through IBL makes. In fact many positive statements, in which teachers appreciated the advantages and benefits of IBL, often ended with “however they take too long to do” or “but it is too time-consuming”. For example, one of the teachers wrote: “although it is beneficial to students’ learning, one has to bear in mind that this is quite time consuming, therefore it is impossible to carry out such an exercise at a frequency which one would like.”

This illustrates one of the challenges faced when attempting to introduce IBL in such an examination-oriented culture. It also shows that changing curricula and curricular intentions are not enough unless accompanied by a change in assessment practices. It will be very difficult for IBL to thrive as long as these high stakes examinations and content-laden syllabi remain in existence and in power.

The concern about time spent on inquiry activities was also a student concern especially for high achievers. For example, a teacher describes a particular lesson with high achievers, who were so “concerned with the final examination that they did not appreciate the beauty of trying things out ... I had the maximum attention when using equations to solve typical exam questions”. When this teacher carried out the same lesson with a group of low achievers, the lesson was highly successful, the students were motivated throughout, except when working out exam questions. The influence of examinations was also evident in a number of everyday decisions and choices made by teachers.

Teacher-related challenges

Teachers reported *challenges related to their new role in class*. From being the centre of all the activity in class they needed to learn how to behave in a new, less central position. Teachers also needed to encourage students to become active learners. For many teachers this meant looking at the kind of questions they asked in class and how they handled the ensuing discussion. For example one teacher reported how she resorted to the use of mini-whiteboards as a way of controlling students who called out answers without giving other students time to think. For some teachers the resulting enthusiasm and excitement on the part of the students was at times overwhelming. While managing overenthusiastic students was difficult, so was motivating those who usually sit passively and let the teacher and other students get on with it. Some teachers described students who would not make an effort when assigned work in groups and asked: “how do you motivate them?”

Occasionally, teachers struggled with class control since students did not know how to behave when working in groups: “I must say that the class was completely out of control! In fact I had different groups fighting about which activity they wanted to do ... there were some students who were fooling around ...”.

Two very common difficulties encountered by the teachers in their first steps away from the traditional classroom were 'not telling the students' and knowing how and when to intervene as can be illustrated by these two comments:

There were moments when a few students got stuck and were about to lose interest and start wasting time. So at that point I had to go to them and guide them to the notes. Maybe this is not proper IBL behaviour but it was necessary at the time.

The students discussed and some of them argued about the statements using their prior knowledge ... I tried not to say a word and it was hard for me. Maybe I did give some clues. Next time, they will know that I can't help and hopefully they will not ask.

These quotations illustrate the dilemma that teachers were facing about the guidance and support that they should or should not give. They may also indicate insecurity as well as an unclear understanding of what IBL is. Although regularly participating in PD meetings many teachers initially believed that using IBL meant giving no guidance at all. This may have resulted in students being confused, teachers giving up and leading to the reluctance to implement IBL expressed by Kirschner et al. (2006). Finding the right level of challenge in activities was another part of teachers' experience of finding their way. Teachers reported instances when planned activities were too easy or too difficult for their students. There were also instances when students lacked the required background knowledge needed to complete the task:

... students were enthusiastic about it and started to discuss. However, they did not have enough knowledge to discuss in depth. I realised that this should have been done later so that students would have enough conceptual knowledge for in depth thought.

Such reflective comments are evidence of teachers learning as they practice. However, in an examination-oriented school context, teachers may feel that they cannot afford to experiment and make mistakes – there are important consequences at stake. In such situations it is quite possible that a teacher decides never to try any other IBL activities again, and this is where support from colleagues is very important. In fact, having the PD meetings proved to be very helpful and the groups developed into communities of practice, learning together and supporting one another. As one of the teachers said:

... the fact that every fortnight we were able to meet and talk about our difficulties and discovering that we were experiencing similar problems, helped a lot ... working on your own you think that certain difficulties are only being experienced by you – and perhaps at that point you can't see a solution. When you discuss them with others, first of all you say: ah so it's not just me ... and from other people you may get an idea of how they are tackling a particular situation which you can learn...

In their reflective journals, teachers described the *tasks and activities used* in the chosen lessons. It is not easy or reasonable to judge or evaluate choice of task without knowing how it was used. A teacher may use a task that appears to be open and unstructured, in a way that stifles inquiry while another teacher may use a task that appears to be structured, in a way that encourages inquiry with students of a particular age or level. The data available in the journals show that the teachers involved in this study used a range of tasks and activities. In some instances the lessons and/or activities described appear rather teacher-centred while others were less so.

Practically all the tasks were closely related to the syllabus and at times even involved typical examination questions. The few exceptions of the use of tasks that were not strictly syllabus material all involved lower secondary classes. Teaching in the last three years of secondary school is all geared towards the SEC examination.

The choice of task may indicate several issues. It may illustrate the teacher's *definition and understanding of IBL*. For example, it seems that for some teachers doing IBL involved frequent and almost continuous use of oral questioning. This may be an impression acquired since one of the first modules tackled during the PD course dealt with questioning that promoted reasoning. They may have simply equated questioning with IBL. For other teachers, inquiry meant a project-type of investigation that spanned over a number of lessons. While the inquiry potential of such a task is indisputable, teachers often accompanied accounts of such activities with concerns about the time spent and how they cannot afford to assign inquiry tasks more than once a year. This lack of understanding or misinterpretation of what IBL entails was also observed by Martin-Hansen (2002) who pointed out that "many educators ... misunderstand what is meant by inquiry, believing that the term applies to almost anything they do" (p. 34). In fact in this study there were instances when teachers were found to regard questioning, eliciting, any hands-on work and any teaching method as long as it was not lecturing as doing IBL. For some teachers, doing IBL involved students working completely on their own as in discovery learning.

Looking at journal entries written over a period of time there were several cases of improvement in choice and use of tasks. This could indicate an improved understanding of what IBL is or perhaps an increase in self-confidence in their ability to use IBL and in the students' ability to learn through inquiry. Teachers' understanding of IBL, in some cases, appeared to evolve from seeing IBL as anything as long as you are not 'telling the students' to giving students opportunities to think, discuss, formulate and communicate arguments based on evidence. These can be regarded as steps in the journey towards adoption of IBL.

It is evident that teachers needed time to develop their understanding of IBL as well as help and support to become more confident in the choice of tasks and in how tasks can be structured.

Difficulties related to *scaffolding* type and amount were also reported. A journal entry describes a lesson with a low achieving class in which the teacher asked specific questions and allowed students to try out their predictions and answers: "This helped them think and then verify and if necessary rectify their ideas. They appreciated the fact that the lesson was hands-on ...". When the teacher attempted to do something similar with a high achieving class, the students did not cooperate and felt that it was a waste of time. This may indicate that students did not find the task challenging enough. Clearly, providing the right scaffolding and level of challenge is not always easy.

Both teachers and students seemed to be greatly concerned about *correct and incorrect answers*. Teachers often commented about student performance in terms of right and wrong answers. Providing feedback about correct and incorrect answers also appears to be one of the main forms of classroom interaction. Many teachers described their efforts as well as difficulties experienced when trying to be less judgemental during a class discussion or other activity. This concern is illustrated in Table 1.

Student-related challenges

Teachers reported a number of challenges that students were experiencing as a result of the change taking place. These are summarized in **Table 1**.

Challenge	Description/illustration
<i>All students encouraged to be active learners</i>	Students who were quick thinkers and were used to getting instantaneous reward for their answers during whole class teaching found it difficult to think and wait, give other students time to think or let other students have a go.
<i>From being totally teacher-dependent to becoming autonomous learners</i>	Students who were very, if not totally, teacher-dependent found it difficult to work on tasks without the teacher's constant feedback, as two teachers noted: "students were watching my body language while I was giving comments and they tried to guess whether the answer was correct or not". "some students were completely at a loss and could not concentrate without my presence ... some asked me to stay around in order to check whether they were on the right track".
<i>From considering learning as an individual activity to learning collaboratively</i>	Some students were unable to work in a group, let alone as a group. A teacher gives the following description in her first journal entry: "I noticed that within the groups there were some who were completely lost and weren't even writing down results ... or trying to make sense of the results obtained... I now realise that the students are not familiar with working in groups... I have expected too much of my students, seeing that this was their first experience..."
<i>From competitive to cooperative</i>	Some students were very competitive. This was often utilised by teachers to motivate students especially boys. For example one teacher used: "a quiz and points system.... Students were motivated to work and to compete with each other." Another teacher displayed homework marks on the board: "I find that it keeps them on their toes, makes them work harder. I try to use it with certain classes ... it seems to work: I show their marks on the interactive white board ... it is a very good class and they compete'. It is no surprise that students did not feel comfortable to think, suggest, and collaborate if their marks were regularly exhibited on the board.
<i>From emphasis on correct answers and avoiding mistakes to learning from mistakes</i>	Students were unfamiliar with the possibility of having more than one correct answer or writing an incorrect answer and learning from mistakes. Some students were so used to having teachers' immediate feedback about what is correct or incorrect that they were frustrated and unable to progress when their teacher refused to comment about a suggestion or answer. For example, when asked to think, discuss and write down all ideas even if they were not sure whether they were correct, a group of students: "were apprehensive of giving an incorrect answer" and attempted to find one correct answer. As their teacher reflected: "students need to be encouraged to express all their ideas and not be afraid of not being correct or precise. More frequent exercises of this type are needed to show them that it is the process of thinking that is important and in reality the outcome is not always predictable".

Table 1: Student-related challenges

Students were experiencing difficulties due to the changes in classroom environment and activities and these initial difficulties at times led them to resist the changes. Teachers are likely to be discouraged when they come across this resistance.

Feelings reported

A number of feelings and emotions were reported in the journals and the interviews which clarified further the picture of the traditional classroom trying to embrace IBL. Some feelings, especially in the beginning, were not very positive and fear and lack of self-confidence were often evident in the comments. Eventually more positive feelings were reported. These included surprise, amazement and disbelief at what their students managed to achieve.

Positive experiences, expected or unexpected, are likely to encourage teachers to carry on and advance their use of IBL. Guskey (2002) in fact proposes that the experience of successful implementation, changes teachers' attitudes and beliefs and results in a change in teachers' practice.

Discussion and implications

Professional Development

It is evident that the PD sessions were instrumental in encouraging teachers to start considering IBL and supporting them in their attempts. Many lessons described were initially still rather teacher-centred and teacher-driven but the participants appeared to be trying to let go traditional teaching by including activities that were less teacher-centred.

Teachers needed time to develop their understanding of what IBL entails. Several inaccurate interpretations of IBL were observed. For some teachers any improvement to their lessons such as assigning hands-on work or using class-questioning meant that they were doing IBL. PD sessions should provide the time and opportunity for these views to be aired so that they can be addressed. Some of these views were evident in the journal entries and confirmed through observations carried out (for research purposes) in another part of the study that is not reported in this paper. The methodology adopted in the PD course did not involve observation of the participating teachers' lessons as part of the course. This may have resulted in a gap between what teachers said during the PD sessions and what they actually did in practice. Including lesson observations, possibly teachers observing one another's lessons and discussing lessons with a 'critical friend' would address this limitation.

It is not easy for teachers to change their role to a less central one, supporting and scaffolding student learning. The long-term PD course spread over two years helped the teachers learn about IBL and how it can be used. It also encouraged teachers to try using this pedagogy in class through tasks that teachers were expected to try out by the following PD session. Time, practice and support are required to help the teacher let go the traditional role. Peer support within the school is very important. A teacher who has no peer support may give up due to isolation especially when faced with systemic challenges and barriers.

PD courses need to help teachers learn how to behave in their new role; how to deal with overenthusiastic students; how to motivate passive students to become active learners; how to find the right level of challenge; and how to decide when IBL is the appropriate pedagogy and when it is less appropriate. The PD meeting and the community of practice can be very helpful in this respect.

The changes teachers are expected to undertake cannot be achieved through one-off courses. Teachers need help and support as they develop the confidence to deal with issues and difficulties involved.

Students

It is challenging for the students to get used to the new classroom environment and to IBL challenges. Students who have always considered learning as an individual activity are now required to learn collaboratively. Students who are accustomed to a competitive environment with selective examinations, marks and prizes must adjust to learning in a cooperative environment. Inquiry also results in a change in emphasis: from emphasis on correct answers and not making mistakes, to emphasis on the process and learning from mistakes. And perhaps the hardest of all is the change from being totally teacher-dependent to becoming more autonomous.

Initially students may resist the changes due to the difficulties caused by these expectations. This is particularly evident when inquiry is first introduced with older students, especially high achievers. Such students have had a longer experience and enculturation in the traditional classroom. The traditional system with teacher delivering, students revising and reproducing what they learn on the examination paper was fine for high achieving students. They performed well and were rewarded with success, so why change and risk losing all this? Any divergence from that model is a waste of time. Experiencing IBL very early in their science lessons, preferably right from primary school, will give students time to learn and assimilate inquiry skills over several years of schooling. Also, students should not be assessed only on knowledge and understanding but also on other skills. In this way, students would value other skills and the process of inquiry as much as knowledge acquisition.

Curricula and Assessment policies

Lack of time, long syllabi together with high stakes examinations that test acquisition of knowledge appear to be a major barrier to wider use of IBL. Faced with long syllabi that need to be covered and high stakes examinations that are used as the yardstick to measure their effectiveness and their students' success, teachers may abandon IBL and other student-centred approaches. Transmission of knowledge is more time-efficient giving teachers control over how much is covered per lesson. High stakes examinations result in frequent testing and in learning for the test, and student-centred pedagogies such as IBL are seen as a waste of time or at best as taking precious time that can be spent otherwise. If science syllabi retain the amount of material that students are expected to learn and if examinations maintain their present importance and content, the good intentions expressed in policy documents (MEEF, 2011; MEE, 2012) will fail to be as successful as they could be. Including the assessment of skills and competences that are relevant to current needs is more likely to encourage the adoption of inquiry and other student-centred pedagogies. It is evident that curricula and assessment policies need to be aligned.

Conclusion

The difficulties encountered have two important implications. First the need for curricula and assessment policies to be aligned. Secondly the need of long term PD that promotes active involvement of participants and which provides long-term support. Ideally, there should be on-site support with teachers working as a school team and developing a community of practice in which teachers reflect, observe one another's lessons and discuss the lessons with a critical friend. This is needed to reduce the barriers and support teachers as they implement strategies that help students acquire an interesting and meaningful science education. Teachers need help to develop their understanding of IBL. They need support as they experiment and develop in

their new role as teachers in an IBL environment rather than teachers in a traditional classroom environment. Long-term PD and support will increase the likelihood of a long-term change in practice that goes beyond the duration of the PD course.

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