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RESPONDING TO STUDENT DIVERSITY TEACHER'S HANDBOOK



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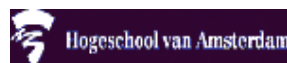
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DIVERSITY:
TEACHER'S HANDBOOK**



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UNIVERSITY
OF MALTA



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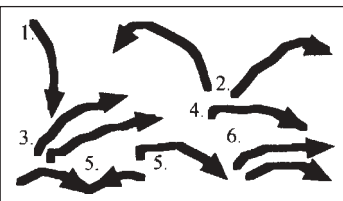
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Cover picture:

Fricke, Dieter; *1943, deaf artist, paintings, sculptures, photo and video art, on the topics of relating and expression of deafness through art; held exhibitions in Germany and USA; more information on www.fricke-art.de

This painting, 'Mankind towards Freedom ...' is an expression of the philosopher Karl Jaspers, 'Die Menschen zur Freiheit führen heißt, sie zum Miteinanderreden zu bringen' ('Leading human beings to freedom means to lead them to communicate with each other'), in German sign language.



- | | |
|------------------|------------|
| 1. Human beings | 2. freedom |
| 3. leading | 4. means |
| 5. communication | 6. leading |

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FOREWORD

Recent years have seen extensive efforts in many countries to ensure that the right to educational opportunity is extended to all members of the community. As this has happened it has become increasingly apparent that traditional forms of schooling are no longer adequate for the task. The children and young people of today live in a world of remarkable interest and excitement. Many have opportunities to travel, whilst even those who do not are accustomed to a rich diet of stimulation through television, films and computers. In this sense they present a challenge not faced by earlier generations of teachers.

Faced with this challenge, including the presence of students whose cultural experience or even language may be different from their own, and many others who may experience barriers to their learning within conventional arrangements, teachers have to think about how they should respond. So, what kinds of practices might help teachers to ‘reach out’ to all members of the class? How can teachers be helped to develop more inclusive practices?

These materials provide a rich set of resources that can be used as the basis of teacher education activities in relation to this challenging agenda. Developed through a remarkable process of international collaboration, they draw extensively on the experience of the authors in different parts of Europe, whilst at the same time, making use of up-to-date research regarding inclusive approaches to teaching and learning.

Rightly in my view, the materials emphasize the idea that teachers are the key to the development of more inclusive forms of education. Their beliefs, attitudes and actions are what create the contexts in which children and young people are required to learn. This being the case, the task must be to develop education systems within which teachers feel supported as well as challenged in relation to their responsibility to keep exploring more effective ways of facilitating the learning of all students.

The materials start from the assumption that difficulties experienced by students result from the ways in which schools are currently organised, and from the forms of curricula and teaching that are provided. This leads on to the idea that schools need to be reformed and pedagogy needs to be improved in ways that will lead them to respond positively to student diversity, seeing individual differences not as problems to be fixed, but as opportunities for experimentation in order to develop more effective practices.

Within such a conceptualisation, a consideration of difficulties experienced by students can provide an agenda for reforms and insights as

to how such reforms might be brought about. In my experience, this kind of approach is more likely to be successful in contexts where there is a culture of collaboration that encourages and supports problem-solving. Thus, the development of inclusive practices is seen as involving those within a particular context in working together to address barriers to education experienced by some learners.

I have argued previously that many of the approaches developed as part of what is now often referred to as special needs education have, despite good intentions, continued to create barriers to progress as schools have been encouraged to adopt them. The recognition that inclusive schools will not be achieved by transplanting special education thinking and practice into mainstream contexts opens our minds to many new possibilities. Many of these relate to the need to move from an individualised planning frame, to a perspective that seeks to personalise learning through an engagement with the whole class. In this sense, many of the ideas about the development of teaching introduced by the authors of these materials provide excellent starting points.

The overall approach, with its emphasis on action research and personal reflection, is not about the introduction of particular techniques or organisational arrangements. Rather it places emphasis on processes of social learning within particular contexts. Collaborative action research is, then, a key strategy for moving practice in a more inclusive direction.

This has major implications for leadership practice at different levels within schools and education systems. In particular, it calls for efforts to encourage coordinated and sustained efforts by whole staff groups around the idea that changing outcomes for all students is unlikely to be achieved unless there are changes in the behaviours of adults. Consequently, the starting point must be with staff members: in effect, enlarging their capacity to imagine what might be achieved, and increasing their sense of accountability for bringing this about. This may also involve tackling taken for granted assumptions, most often relating to expectations about certain groups of students, their capabilities and behaviours.

All of this is, then, based on the assumption that *schools know more than they use* and that the logical starting point for development is with a detailed analysis of existing arrangements. This allows good practices to be identified and shared, whilst, at the same time, drawing attention to ways of working that may be creating barriers to the participation and learning of some students. However, as I have stressed, the focus must not only be on practice. It must also address and sometimes challenge the thinking behind existing ways of working.

Mel Ainscow
University of Manchester
May 2007

PREFACE

Welcome to the challenge of preparing teachers to respond to student diversity. We would like to share with you the construction of this handbook in a multicultural and multi-expertise context.

The motivation for this handbook arose first of all from a concern for social justice in education. A group of teacher educators felt that the increase in the use of standardised educational achievement measures was leading to the devaluing of substantial numbers of students who are labelled failures and pushed out of the education and social system. We felt that it is we ourselves, as teacher educators and teachers who are in schools and classrooms who in fact are being challenged in our responsibilities towards students.

All students are entitled to a quality education and we need to find better ways for enabling each one to be engaged in meaningful learning activities and make progress. And we understood that in order to achieve this, we need first of all to promote an openness to student diversity, an attitude of appreciation for diversity, an assumption that it is normal to be different and to provide a differentiated curriculum and learning experience. Students are diverse and engage with the curriculum at diverse points and in diverse ways, and good teachers are first of all prepared for *responding to student diversity*.

The handbook was conceived during a meeting in Malta in 2003 among an international group of teacher educators spanning from Sweden to Malta and Greece and to the U.S. The concept was then worked out as a *Comenius 2.1 Project DTMp (Differentiated Teaching Module – primary)* over three years from 2004 to 2007 (www.dtmp.org). The DTMp Project team consisted of an even wider and more diverse group coming from seven EU countries, namely Malta (Coordinator), Czech Republic, Germany, Lithuania, Netherlands, Sweden, and United Kingdom. The background of each partner varied as well: one from an inclusive education concern, one from differentiated teaching, two from issues of disability and one from issues of disaffected students, one from socio-emotional development concerns, and one each from the pedagogy of language and mathematics. We also listened to teachers from the seven countries who were trying to reach out to the diversity of their children in the classroom, and you will find the text peppered with the experiences they related to us. We felt that this diversity enriched our teamwork and our products.

This diversity of partners and cultures led to a combination of a rather *unusually wide variety of issues* that members of the team related to inclusive

education and differentiated teaching. (1) It starts by focusing on action research as a tool for professional development; (2) an important chapter is dedicated to understanding and respecting student diversity, particularly culture, language, gender and exceptionality, and the application of inclusive education principles; (3) it considers the personal and social growth of individuals within a caring and supportive environment, with a focus on holistic education, teacher-student and student-student relationships, as well as inter-staff and staff-community collaboration; (4) it has an important basic focus on understanding student diverse characteristics, with foci on constructivist approaches, on multiple intelligences, on emotional intelligence, as well as the specific strategy of the 'Let me learn' process, and on attributional styles; (5) another basic wide focus is on diversifying the curriculum and teaching and learning organisation, with foci on diversifying curriculum *content*, the learning *process* – including use of different modalities, the creation of independent working time, as well as group work, and on learning *product*, including issues of assessment for learning and use of portfolios; (6) finally, it also has a focus on a reflective application of all the previous principles holistically during actual teaching.

This variety of issues, though all related to responding to diversity, is hardly ever found together in similar texts. We put our related concerns together, while still understanding that for particular teachers one or more of the topics may appear redundant as they may already be addressed in their other courses or in their culture. So it is expected that any short course cannot address the wide variety of issues at sufficient depth. It is expected that teacher educators and teachers themselves will make choices of issues to take up to meet their professional development needs.

The approach adopted in the handbook is one for general pedagogy courses for addressing *diversity issues*. It is based on the assumption that all teachers should have at least some specific exposure to issues of diversity. This handbook can provide supportive material for such courses. However, it is not focussed on one specific source of diversity. In our project proposal, we had already discussed the issue and decided that though some of us had a particular interest in children with impairments, we wanted to address a wider diversity: 'responding to the diversity of pupil needs arising from *different backgrounds, interests, abilities, learning styles, and impairments*'. This may be seen as leading to a rather unfocused approach. However, we share with prominent exponents of inclusive education the understanding that an open attitude is basic to address the diversity of pupil strengths and needs. Indeed, one of the issues that has sometimes arisen in our seminars is that some teachers may think that their children are a homogenous group because there are no students with disability in their classrooms. And then you start asking if their one-size-fits-all curriculum is equally adapted to the girls' and the boys' interests and behaviours, to children coming from different subcultures, political, religious

or socio-economic environments, language dialects ... and they start realising that they are not empowering all their students in the same way. As long as there are dominant and minority cultures and groups, diversity will be an important issue if we believe all children are entitled to a quality education. It is up to the teachers and their educators to determine if they want to focus on a particular minority group that is most marginalised in their educational system.

Similarly, while the handbook is mainly intended for general pedagogy courses, it can provide supportive material for *subject specialists* in dealing with teaching methodology. The principles can be applied by the teacher educator as well as the teachers to the particular subject, be it language, art or science, in discussions on how to apply the principles specifically to the teaching of that subject: for instance the type of group tasks that can be used, the type of assessment for learning that can be developed for the teaching of their particular subject area.

This handbook is meant as a *tool for teachers* engaged in reflective practice in relation to responding to diversity. It is up to the teacher and teacher educator to use as best meets their needs. It is not expected that all the issues raised in this handbook will be taken up in a short course (i.e. modules of up to 10 ECTS). Indeed its contents and related readings have been elaborated to constitute 60 ECTS taught units of a Master in Education programme.

Readers will also find an unusual proportion of references and quotations in this handbook that come from the internet. The reason is that the first version of this handbook was produced for the online version of the DTMP module (see <http://web.um.edu.mt/moodle>). The online version is also available on the Avicenna Virtual Campus on <http://moodle.ftz.org.mt/course/category.php?id=5>.

Finally, we have tried not to be prescriptive and allow as much as possible for users of the handbook to make use of their *own experience and relevant texts* in their culture to make sense of the issues raised in this handbook. Responding to student diversity is a dynamic, embedded process that develops over time and in specific cultures and educational systems. We hope you feel empowered to make flexible use of the handbook.

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Thirdly, we are very grateful for the essential feedback given to us by those teachers in pre- and in-service courses in the seven partner countries who registered for our DTMp module and gave us their feedback on their experience. In addition we would also like to thank the Malta MEd students who reviewed the revised handbook.

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CHAPTER

1

TEACHERS' DEVELOPMENT IN RESPONDING TO STUDENT DIVERSITY: KEY ISSUES AND PROCESSES

AIMS

The aim of this introductory chapter is to present the main issues of teacher development addressed in this handbook. These are the two key concepts of differentiated teaching and inclusive education, and the action research process teachers can engage in as they enhance their response to student diversity. The more specific aims of this chapter are to provide the reader with an opportunity:

1. To think about differentiated teaching and inclusive education as the two key issues of this handbook.
2. To develop a general framework for the several issues raised in the handbook, namely creating inclusive cultures, building supportive communities, understanding the learner, and understanding and differentiating the curriculum.
3. To consider action research and reflective practice as a method for professional development in responding to diversity.



What the teachers say ...

1. ON REACHING OUT TO ALL STUDENTS

TEACHER FROM MALTA: *In my formal training, during my first degree, I had nothing about differentiated teaching. My inclination came when I was doing a diploma in physical education, and I had worked on a long essay of how to include children with special needs in a P.E. lesson. From then on, sort of my inclination was about reaching all the children: all the children are in school, they have been accepted in the school, so all the children should be given a right to learn at the level they can learn. So it was then that I really started thinking about it, 'Listen, I have 29 children, Ok, em ... different levels, I can't reach them all in the same way. What am I going to do about it?' So that is when, yes, I started then reading about differentiated teaching and what I have to do to reach everybody. Especially because, many a time, I used to concentrate more on the child with special needs, the struggling child, and I was leaving out the bright kids, and that sort of, all right, they were the ones who least needed my help, but I wanted them to move forward as well. So it was that dilemma I had, as I was giving and putting so much energy, em ... towards teaching struggling kids, that I was leaving the average and the above average children out of my scenario. So this, differentiated teaching was my solution, of how to reach everybody.*

TEACHER FROM CZECH REPUBLIC: *It (diversity of students) moves me all the time in my way of thinking, changing values. Each child teaches me something new, teaches me to seek new ways ... Maybe I give the children more space ... I more and more transfer responsibility on the children ... responsibility for learning, behaviour ... for their own life.*

TEACHER FROM UK: *The head teacher is early years-based originally. She is very much into the social skills and child initiative and really her ethos of the school is based around individual needs for every child. It's a positive approach, it's putting that child's needs first and then how we fit round.*

TWO KEY ISSUES IN RESPONDING TO STUDENT DIVERSITY

This section introduces the key issues of the handbook, namely 'differentiated teaching' and 'inclusive education'.

Differentiated teaching

You may have already come across the term 'differentiated teaching' and have your own ideas about it. Figure 1.1 shows some of the meanings one group of primary teachers in Malta gave for 'Differentiated teaching'.

The focus raised by the term differentiation in this group of teachers was on understanding students' needs and strengths and adapting one's teaching accordingly. These ideas are reflected in the following definition by a long time promoter of differentiated instruction in the U.S.:

The philosophy of differentiation proposes that what we bring to school as learners matters in how we learn. Therefore, to teach most effectively, teachers must take into account *who* they are teaching as well as *what* they are teaching. The goal of a differentiated classroom is to plan actively and consistently to help each learner move as far and as fast as possible along a learning continuum. (Tomlinson, 2003, pp. 1-2)

This handbook addresses the issues raised by Tomlinson under two main themes:

- (a) the need for a constructivist approach to education that seeks to understand the students: their cultural background and personality, their interests, learning profile (ways of learning), and readiness levels (previous learning in each area of the curriculum); and
- (b) the need to understand the 'geography' of the curriculum so that one can attune it to the diversity of student strengths and needs so that they can access it meaningfully and successfully.

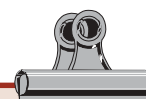


Figure 1.1: Differentiated teaching???

Using different methods to teach different children

Multilevel teaching to suit all abilities

Adaptation of teaching to meet different needs

Using different teaching aids – multi-sensory

Focusing on the students' strengths

Know them individually – learning styles

Reaching out to all students is an important challenge for teachers



Inclusive education

If teachers follow the above philosophy, then we may achieve a major goal in education which is to develop every child's potential.

However, we understand that there is another important goal in education. That is that children learn to accept each other's differences and respect and value each other equally, learn to live together and support each other. Again, Figure 1.2 shows some reactions of a group of teachers in Malta to the phrase 'Inclusive education'.

Here the teachers again made reference to differences in children and support for individual learners, but the main issues were those of equal valuing of students – 'equal rights, entitlement, needs' and the importance of 'welcoming' and 'accepting everyone', of 'sharing abilities' so that everyone can feel that he or she 'belongs' to the class.

Unfortunately, sometimes, differentiated instruction is achieved through segregation: such as when persons with impairments or with lower achievement are sent to special schools, or when students are streamed by ability in the same school or in the same class. Often this leads to devaluing of the 'lower ability



Figure 1.2: Inclusive education???

Includes special needs children – everyone whatever his differences

Welcoming every child irrespective of her characteristics

Support for individual learners

Flexibility in planning lessons

Equal rights; Entitlement; Needs

Sharing abilities;

Belonging; Accepting everyone

groups' who are labelled 'stupid' and other names and become discouraged as learners, while also being provided with a lower quality of education.

Moreover, when we focus on developing academic proficiency at the expense of the other values of collaboration and solidarity, we may be missing a second important goal of education:

Surely, we should demand more from our schools than to educate people to be proficient in reading and mathematics. Too many highly proficient people commit fraud, pursue paths to success marked by greed, and care little about how their actions affect the lives of others. (Noddings, 2005, p. 8)



OMNIBUS IDEM (For All Equally): This slogan appears at the top of the first water fountain built in 1615 at the entrance to Valletta, capital city of Malta. The water brought through an aqueduct from the countryside was for the use of everybody equally

Inclusion is a social phenomenon. Children need to belong to the community also outside the classroom



We thus need to add *inclusive education* to *differentiated instruction*. Inclusive education does not focus on the learner in the first place, but rather on 'the others' – the child's peers, teacher and others. In fact it goes beyond teaching and learning, and concerns all activities within the school. We often refer to it as '**social inclusion**', because it is about valuing each child equally. It is about welcoming everyone and offering mutual solidarity and support.

Thus the 92 countries represented at the *Salamanca World Conference of Special Needs Education* (1994) declared that:

- every child has a fundamental right to education, and must be given the opportunity to achieve and maintain an acceptable level of learning,
- every child has unique characteristics, interests, abilities and learning needs,
- education systems should be designed and educational programmes implemented to take into account the wide diversity of these characteristics and needs,
- those with special educational needs must have access to regular schools which should accommodate them within a child-centred pedagogy capable of meeting these needs,
- regular schools with this inclusive orientation are the most effective means of combating discriminatory attitudes, creating

welcoming communities, building an inclusive society, and achieving education for all ... (UNESCO, 1994, pp.viii-ix)

The latest UNESCO statement on “ensuring access to education for all” highlights again the need for mainstream education to ensure non-exclusion of marginalized groups:

Current strategies and programmes have not been sufficient to meet the needs of children and youth who are vulnerable to marginalisation or exclusion. In the past, efforts have consisted of specialized programmes, institutions and specialist educators. The unfortunate consequence of such differentiation, although well intended, has often been further exclusion. Achieving the EFA (Education For All) and Millennium Development Goals by their assigned time lines will require unprecedented intersectoral and interagency collaboration among partners. Education must be viewed as a facilitator in everyone's human development and functionality, regardless of barriers of any kind, physical or otherwise. Therefore, disability of any kind (physical, social and/or emotional) cannot be a disqualifier. Inclusion, thus, involves adopting a broad vision of *Education for All* by addressing the spectrum of needs of all learners, including those who are vulnerable to marginalisation and exclusion. (see UNESCO, 2005, pp.11-13)

A FRAMEWORK FOR RESPONDING TO STUDENT DIVERSITY

This section describes how the handbook sets differentiated teaching as a tool for ensuring inclusion and a quality education for all. It presents the four major themes explored in the four respective chapters (Chapters 2-5) for this to be achieved.

The themes of the handbook are based on research on inclusion and differentiated teaching. They were brought together particularly strongly through the study of European teachers' perceptions on responding to diversity investigated by the 3 year (2004-07) Comenius 2.1 Project, *DTMp: Differentiated Teaching Module (Primary): Preparing teachers to respond to student diversity in primary education*. Five primary school teachers from each of seven European countries (Czech Republic, Germany, Lithuania, Malta, Netherlands, Sweden, and United Kingdom) were interviewed about their concerns and strategies in responding to diversity in their classroom. The study reported five main themes:

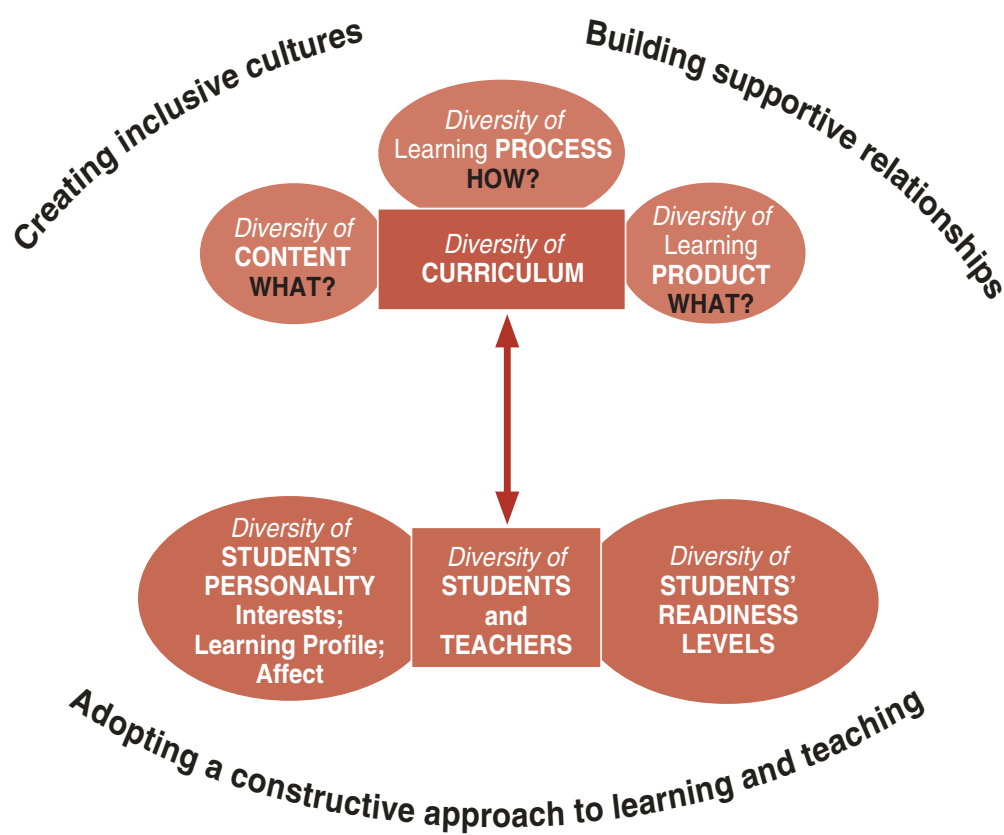
- (1) The *need for caring and inclusive attitudes and school ethos*—all participants spoke of wanting to reach all students, believing and feeling accountable for each one's learning, caring about each one's progress and happiness, and enabling each one's participation. They mentioned the need for 'pedagogy conversations' in order to reflect and improve their responding.
- (2) The participants did not leave appreciation of diversity to chance but actively tried to develop *inclusive and solidarity values* in their students as they strived to build a classroom community.
- (3) In fact, participants also spoke of the need for *building collaborative networks*: firstly an interpersonal relationship with each of their students; secondly among their students; and finally with other school staff, parents and other professionals.
- (4) In addition, these teachers used a variety of strategies to *organize responsive teaching*, including group work and a diversified curriculum, for engaging the whole class in multi-interest, multi-media and multilevel activities, using a great deal of flexibility and creativity.
- (5) Finally, it was noted that teachers did not see responsive teaching as an easy option. They also spoke of how they tried to *face challenges to responding to diversity*—for instance, when the rest of the school did not share the same values, or when dealing with pupils with particularly complex needs. (Humphrey et al., 2006, p.310)

These findings led to the building of the framework shown in Figure 1.3, which presents the four major areas of content that are covered in the handbook, namely:

- Why and how to create an inclusive climate in the classroom (Ch. 2);
- In relation to that, how to build collaborative and supportive networks (Ch. 3);
- Why and how to use a constructive approach in teaching and learning which entails understanding one's students and the baggage they bring with them to the classroom (Ch. 4); and
- Why and how to differentiate the curriculum to meet the strengths and needs of diverse students (Ch. 5).

The handbook also addresses a fifth area of concern in teacher

Figure 1.3: Framework for issues in differentiated teaching and inclusive education



education: namely, how teachers can engage in professional development activities that enhance their use of the above attitudes, knowledge and skills in responding to student diversity. This is addressed in Chapters 1 and 6: in the first, the teacher is presented with the *Action Research* approach to professional development; and finally, in Chapter 6, the teacher is given a framework for including the principle of responding to diversity in lesson planning, implementation and evaluation.

The handbook as a tool for professional development

This *Handbook* is aimed at supporting the reader on the journey towards becoming a competent and self confident teacher of diverse students and classrooms. It specifically aims to support the construction of a framework for teaching that assumes that students have diverse strengths and needs, and that the task of the teacher is to facilitate each student's learning and empowerment as a learner.

Handbook Format

The handbook is presented as an interactive learning tool.

- It is divided into **six chapters**, each of which covers a substantive area of knowledge, attitudes and skills related to a particular aspect of inclusive and differentiated teaching. It is estimated that in order to get to grips with the core issue raised in each of the chapters one requires at least around 25-30 hours of study. This is usually credited in the EU as equivalent to one unit of credit in the ECTS¹ system (1 ECTS credit is equivalent to around 7 hours of attendance at lectures and 18 hours of independent study time).
- **Each chapter** is presented in a similar format. If you go back to the beginning of this introduction you will notice that you were first presented with a statement of the AIMS of the chapter, with a general aim and more specific aims (see Box 1.1).
- A separate section of the chapter is dedicated **TO EACH OF THE SPECIFIC AIMS** listed at the beginning of the chapter. **SECTION TITLES** are in **BLOCK LETTERS**.
- Along the text, reference is made to related **readings** supplied in a reading pack (a list of readings is given also at the end of each chapter).
- Along the text too reference is also made to related **video clips** in the accompanying CD.
- At the end of each chapter, there are suggestions for **activities** one may engage in to develop a deeper understanding or application of the concepts discussed in the text. These involve reading, or watching a video, or carrying out an observation, or implementing a strategy, and reflecting on issues raised.

¹ ECTS (European Credit Transfer System) is based on the principle that 60 credits measure the workload of a full-time student during one academic year. The student workload of a full-time study programme in Europe amounts in most cases to around 1500-1800 hours per year and in those cases one credit stands for around 25 to 30 working hours. Credits in ECTS can only be obtained after successful completion of the work required and appropriate assessment of the learning outcomes achieved. Learning outcomes are sets of competences, expressing what the student will know, understand or be able to do after completion of a process of learning, long or short. (EC, 2006)

Box 1.1

Format of chapters – example of AIMS section from Chapter 1

AIMS

The aim of this introductory chapter is to present the main issues of teacher development addressed in this handbook. These are the two key concepts of differentiated teaching and inclusive education, and the action research process teachers can engage in as they enhance their response to student diversity. The more specific aims of this chapter are to provide the reader with an opportunity:

1. To think about differentiated teaching and inclusive education as the two key issues of this handbook.
2. To develop a general framework for the several issues raised in the handbook, namely creating inclusive cultures, building supportive communities, understanding the learner, and understanding and differentiating the curriculum.
3. To consider action research and reflective practice as a method for professional development in responding to diversity.

- **The Media Pack:** The *Handbook* has an accompanying Media Pack consisting of a set of brief readings or videos, being either articles, book chapters or brief accounts of particular concepts, and video clips of classroom processes. Each reading and video clip is indexed according to the relevant chapter.

Contents of the six chapters

The handbook is divided into six chapters: The first and last chapters are more directly linked to teaching practice, in terms of the use of action research and planning, implementation and evaluation of teaching. Chapters 2-5 are still linked to practice issues but are more theoretically based:

Chapter 1: Teachers' development in responding to student diversity: Key issues and processes. This chapter presents the main issues of teacher development addressed in the handbook, namely

the two key concepts of differentiated teaching and inclusive education, and the action research process teachers can engage in as they enhance their response to student diversity.

Chapter 2: Creating inclusive cultures. This chapter discusses the impact of cultural, language, and gender diversity and of disability on education. It questions social exclusion and discriminatory attitudes and practices. It promotes the celebration of diversity and the participation of all students in inclusive, child-centred schools and classrooms.

Chapter 3: Building together a caring and supportive community. This chapter highlights the importance of creating a caring and supportive learning community in the school and classroom through a holistic approach to education that also values the socialization aspects of schooling. Teacher-student, student-student and staff and community relationships are all addressed.

Chapter 4: Understanding and responding to student diversity. This chapter highlights the constructivist principle of the essential need for active engagement of the learner. It outlines the important need for the teacher to get to know the students' various learning characteristics, strengths and needs in order to enable their active participation in the curriculum.

Chapter 5: Diversifying the curriculum. This chapter focuses on how to diversify the content, process and product of the curriculum to effectively engage and challenge each student. It also includes a focus on one of the important processes, namely cooperative learning. Emphasis is put on formative assessment and the skill of empowering students to take responsibility for their own learning.

Chapter 6: Plan, implement and evaluate responsive teaching. This final chapter aims to support teachers in their application of the principles and strategies for reaching out to all students. It guides teachers in their preparation for, and implementation and evaluation of responsive and inclusive teaching strategies in the classroom. This chapter can be used both as a guide for a longer engagement with a class of children, as well as for shorter teaching experiences during a single lesson or a few lessons.

THE ACTION RESEARCH PROCESS

This section is aimed at describing the process of *action research* as a tool for professional development in the area of responding to student diversity.

A Handbook for Action Research

This *Handbook* is not meant to be just a reading text. Yes, it should engage the reader intellectually and emotionally through readings from related theory and research findings and new reflections. It should indeed raise challenges to the reader's thinking. But it is more than that: The *Handbook* should be regarded in the first place as a tool for the reader's professional development through **Action Research** (Russell, 2005; see also Kemmis, 2005).

Action research

Action research is a term used to describe professionals studying their own practice in order to improve it. While traditional research was carried out by university academics on children, teachers, head teachers, and schools, in Action Research it is the teachers and head teachers themselves who are often the researchers, carrying out their



Teachers need time to reflect on and plan their teaching, preferably in collaboration

own enquiries about what they themselves are undertaking and experiencing in school. This does not exclude the possibility that experts from outside the school would also collaborate with the teacher or other school staff to elaborate their ideas and actions of their enquiry. But the teachers and other stakeholders remain the protagonists of the enquiry. Action researchers are also different from traditional researchers “because they are committed to *taking action* and *effecting positive educational change* based on their findings rather than being satisfied with reporting their conclusions to others” (Mills, 2000, p.4).

While being concerned with the rather messy and complex situation of the teacher researchers' own work in the field, action research must be a scientific and therefore a *systematic* enquiry, having a particular research question and a particular design for the collection and analysis of data.

The central research question for a teacher doing action research is, “How can I help my students improve the quality of their learning?” The ‘improvement’ is focused on a particular action, in our case responding to diversity.

In this case the teacher would be expected to take the following four steps in action research (though the steps overlap and may not be linear):

- (1) **Focus on responding to the diversity** of student strengths and needs as a teaching concern. Thus he or she will seek to understand the potential positive and negative impact of student diversity on their learning; and the importance and skill of adapting the curriculum and learning environment to reach out to each student.
- (2) **Develop ideas and skills**, also with the help of reflections on relevant theory, on how this concern can be addressed during teaching practice. The teacher is expected to plan ways of getting to know the students and of adapting the curriculum to their needs; and try to implement the diverse content and methods of learning and teaching in the classroom while reflecting on the impact this is having on children's learning.
- (3) In the process of implementation and reflection, **collect evidence** on the effectiveness or otherwise of one's attempt to respond to student diversity. During teaching practice, the teacher will evaluate the impact of his or her strategies on the engagement of all children in the lessons, as well on the progress achieved by each child in the different areas of the curriculum.

- (4) The teacher can then **critically evaluate**, also using theoretical frameworks, the evidence collected on how he or she tried to reach out to all students. Such evaluation can then lead to further improvement in the teachers' response to student diversity and thus the further engagement and success for all learners. This then becomes the start or rather continuation of the cycle of planning, implementing and evaluating one's professional practice.

It is expected that the handbook will serve as a guide in all the above four stages in the process of Action Research by providing a focus, and theoretical and practical underpinnings for the development of ideas, plans and strategies for improvement one's response to student diversity.

Reflective Practice

Action research is aimed at “incorporating into your daily routine a *reflective stance* – the willingness to look critically at your teaching so that you can improve or enhance it. It is about a commitment to the principle that as teachers we are always distanced from the ideal but are striving towards it anyway – it's the very nature of education! Action research significantly contributes to the professional stance that teachers adopt because it encourages them to examine the dynamics of their classroom, ponder the action and interactions of students, validate and challenge existing practices and take risks in the process” (Mills, 2000, p.11).

That is why there is a lot of emphasis in teacher education on **Reflective Practice**, or as originally coined by Schon (1983) ‘reflection-in-action’. Reflective practice is generally associated with the keeping of a journal of reflection on one's professional practice. It is aimed more directly at the enhancement of one's own individual professional development. “The primary benefit of reflective practice for teachers is a deeper understanding of their own teaching style and ultimately, greater effectiveness as a teacher. Other specific benefits noted in current literature include the validation of a teacher's ideals, beneficial challenges to tradition, the recognition of teaching as artistry, and respect for diversity in applying theory to classroom practice” (Eric Digest, 2000). But the end result might be similar to action research in terms of changes in one's practice to achieve an improvement in the quality of the learning of one's students.

Each chapter of the handbook is followed by a series of suggested activities that include *reflective writing*.

Reflective writing

Reflective writing explores not only what the teaching experience was like, but considers the meaning the teacher attached to it at the time and subsequently, and how this meaning is likely to influence his or her action in the future. Thus reflective writing may contribute to one's continued professional development in a number of ways. The process of writing reflectively may in itself be an important step in a teacher's attempt to make sense of his or her practice (Coles, 2002).

There are many different forms of reflective thinking and writing: through sharing teaching experiences with a mentor or a critical friend, or through peer observation and reflection on each other's teaching, or through keeping a diary of personal growth. In each case, however, whether on one's own or with others and whether one writes it or discusses it, one may be seen as going through a "reflection cycle":

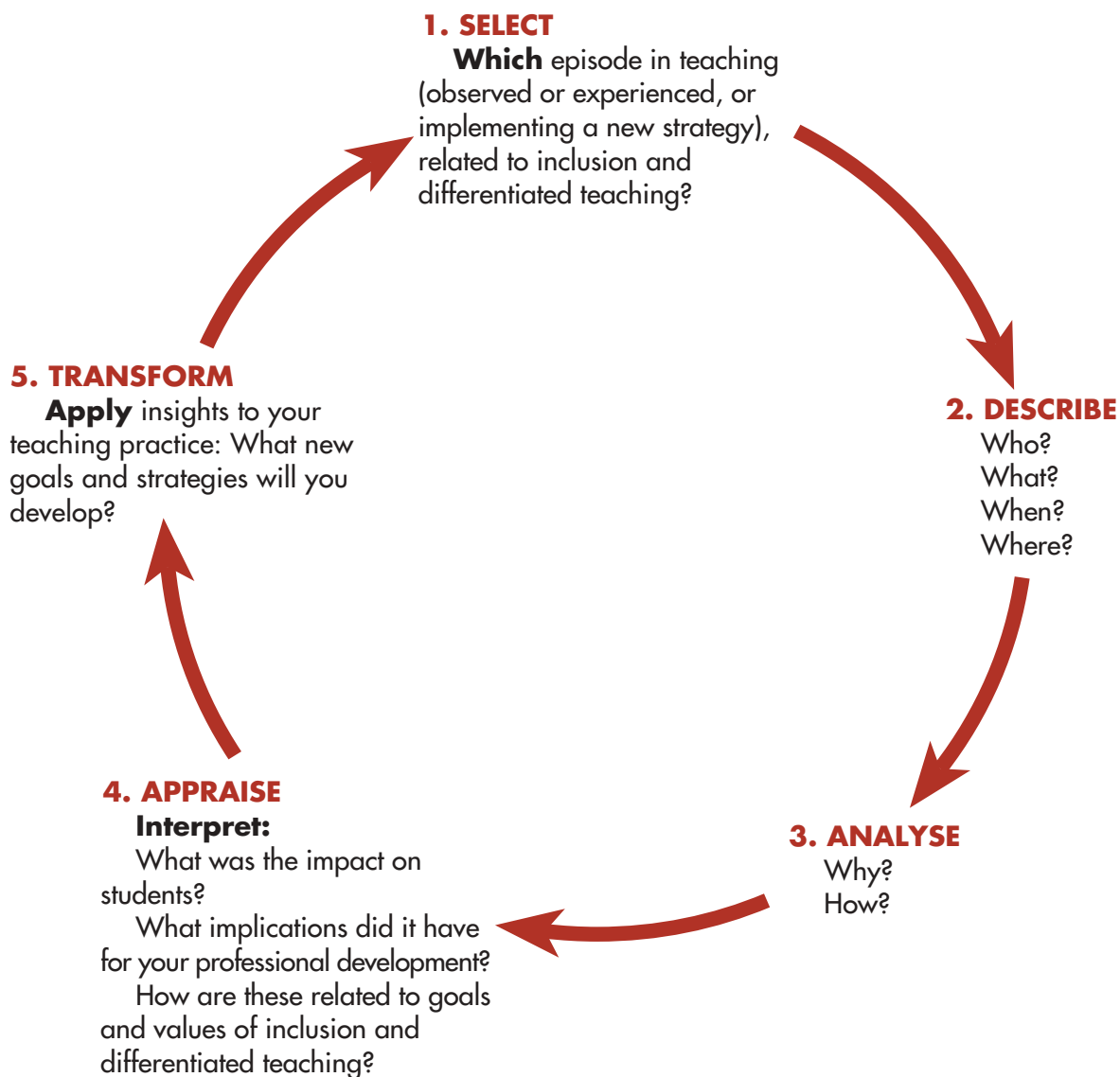
- the *selection* of an experience or implementation of a new teaching strategy related to a particular teaching concern;
- a *description* of the teaching episode;
- an *analysis* of what the teacher feels was happening in that episode;
- an *appraisal* of the evidence against their effectiveness for teaching and learning, as well as against the goals, values, and philosophy of the principles of inclusion and differentiated teaching; and
- the *transformation* of the new insights about their teaching practice into ideas of how they will do things differently in the future. (Levin & Camp, 2005, see Figure 1.4).

Box 1.2 presents an example of a reflective cycle from one of the Levin & Camp students, which includes reference to standards on teacher competencies in the U.S., as well as artifacts (i.e. evidence) the student was including in her portfolio.

Box 1.3 presents another example of reflective writing from Cassar, a Maltese pre-service teacher, during her third year teaching practice. This roughly follows the same reflective cycle lines, and includes a reference to a theoretical text as part of her *analysis*.

Reflective writing is also often associated with portfolio assessment. An account of portfolio assessment is provided in Chapter 5. Here it suffices to say that, if one aims to use this handbook for one's professional development, then the best way to do it is for the user to keep a reflective journal. This journal should consist of reflective writings (possibly with accompanying artefacts) that record one's thinking process and actions as one engages in the readings and observations, and as one plans, implements and evaluates teaching strategies for responding to student diversity.

Figure 1.4: The Reflection Cycle
(Adapted from Levin & Camp, 2005)



Box 1.2

Example 1 of Reflective Writing

(Pre-service teacher, U.S. - Adapted from Levin & Camp, 2005)

Reflective Portfolio Entry about Social, Legal, Ethical, and Human Issues

Select: *I developed and facilitated a PowerPoint presentation for parents and teachers at a PTA meeting at Verifine Elementary School (INTASC^a #9, #10). The presentation was about social, ethical, legal, and human issues with respect to technology use (NETS-T^b #6).*

Describe: *During my presentation (see Artifact #1-PowerPoint slideshow) we discussed how to protect one's privacy while using the Internet. We identified problems and dangers that students might encounter when using the Internet and I demonstrated the filtering software that we use at Verifine School (see Artifact #2 – link to information about filtering software). Then we brainstormed rules that students would follow when they are online to avoid these problems (INTASC #10). Next, I explained the Acceptable Use Policy (AUP) at Verifine School (see Artifact #3 – copy of AUP). Each parent received a copy of the policy to discuss with their child before signing and returning it. (NETS-T #6, INTASC #10). Next we examined equity issues around technology. I shared statistics demonstrating gender inequity with regard to computer technology (NETS #6). We brainstormed strategies that students can use to recognize bias in materials. We also discussed some of the things that students need to consider when collaborating on projects, especially computer-based projects. We discussed what students and parents need to know when evaluating the authenticity of material found on the Internet. Finally, we talked a lot about copyright issues, especially how it relates to electronic material and how the “fair use” policy is used by educators (Artifact #4-link to copyright information).*

Analyze: *I think parents and teachers learned a lot from the presentation. I am also confident that they will share this information with their children and model responsible ethical and legal decision-making concerning technology (INTASC #9, #10, NETS-T #6). I found that my presentation was aided greatly by my use of technology (INTASC #9). Using PowerPoint helped me organize my presentation into a series of slides that contained talking points. As I facilitated the presentation and ensuing discussions, the slides kept me focused without having to look at my notes.*

Appraise: *I realized that parents are receptive to learning new things about educational uses of technology. They were glad to hear more about our AUP and to know that we are teaching how to use the Internet responsibly (INTASC #10). I believe that PowerPoint was an effective use of technology because it created a bright and appealing visual aid that kept the audience focused.*

Transform: *If I were to do this presentation again I would definitely use PowerPoint, but I would change two things. The first thing is that I would invite parents and students to come to the meeting together. The presentation is appropriate for children and they would have also learned a great deal. I think this would be a great opportunity for parents and children to learn something together (INTASC #10). The next thing I would change would be to include specific scenarios that deal with social, legal, ethical, and human issues around technology (Artifact #5-example of scenario about piracy). I think such examples would make the presentation more interesting and the content more understandable for the learner (INTASC #9, NETS-T #6). In the future, I also plan to make use of PowerPoint in the classroom because the visual nature of the slides will help some students stay on task and the organizational schema will help students understand and remember material – especially my visual learners.*

^a INTASC = Interstate New Teacher Assessment and Support Consortium core standards for what all beginning teachers should know, be like, and be able to do in order to practise responsibly in the U.S.

^b NETS-T = National Educational Technology Standards for Teachers in the U.S.

Box 1.3

Example 2 of Reflective Writing

(Esmeralda Cassar, Pre-service teacher, Malta)

The impact of seating arrangements in the classroom

I think that the way in which I have set up my classroom has worked well throughout the activities and lessons planned. I feel close to all the children so that I can reach out to them and gain and maintain their attention. The fact that the desks are grouped up allows me to conduct group work without losing time on re-arranging the desks. In fact since I use collaborative and co-operative work very often, this type of classroom set-up has turned out to be conducive of such work. This is also suggested by Partin (1999) who states that,

Seating students in clusters or around a table facilitates group interaction. It enhances small-group discussions and cooperative learning, but it also invites chatting and socializing. (p.3)

In fact I must admit that at first I encountered some behaviour problem when I first started using this kind of set up. But, upon introducing the group star chart, the children settled down and obeyed as a group as they wanted to gain points on their star chart. I feel that having a group chart has worked out very well as the children encourage each other to obey and follow instructions immediately. Apart from the group chart being an extrinsic motivation for children to work well and obey, the children also have the extrinsic motivation not to let down the members of their group. Each child has learned to think twice before s/he acts as s/he knows that the group will suffer or gain from his/her actions.

I must say that there is one draw back of this system which is that individualism does not exist and many times I cannot punish or reward a particular student because I have to reward or punish the whole group. Upon reflection, I have come up with the idea of combining an individual star system to a group system, but still I feel that it would not work out as well as the system I have adopted. I will continue to use this system and try to speak to individuals who are causing their group to lose marks so that they feel guilty of doing so and behave better.

Using the handbook for reflective practice

This handbook is intended to accompany reflective practice or action research, allowing the teacher, as a full time teacher or as a trainee on teaching practice, to focus on enhancing his or her responding to diverse student strengths and needs. Because the handbook may be used by pre-service teachers or in-service teachers and by teachers in different countries, it allows for a lot of different practice arrangements.

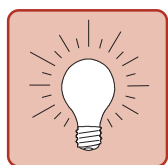
Thus, one can deal with the issues raised in the first five chapters through lectures or seminars and study time, and later try to apply learning in one's teaching practice. Alternatively, practising teachers can apply each of the issues raised in the five chapters to their teaching during particular teaching sessions or episodes.

If used by pre-service teachers, it is recommended that the issues dealt with in the first five chapters be regarded as preparation for undertaking teaching practice in which the principles and strategies considered in the handbook will be applied. Chapter 6 will then be used for the actual organisation of a focus in teaching practice on responding to diversity and its evaluation.

Reflection-in-Action

In order to link the learning intended by the handbook to teaching practice, it is expected that teachers keep some form of journal of reflective thinking about their practice in relation to the issues raised in the handbook:

1. The teacher reflects on and describes his or her personal goals and challenges in considering the implementation of responsive teaching in an inclusive setting;
2. Assesses the classroom situation he or she is teaching or going to teach with regards to its inclusive culture or otherwise, and works towards creating a more inclusive and supportive climate in the class;
3. Identifies situations in which a student is not being reached or is difficult to be reached by whole class teaching;
4. In collaboration with a mentor or peer, the teacher is then expected to devise new ways in which his or her teaching can respond to that student's/s' individual learning needs and strengths; and
5. Tries to design lessons that reach all students including those with individual educational needs;
6. Implements adapted lessons with an eye for ensuring that all children are engaged and participating fully in the activities and making progress;
7. Collects evidence on the impact of his or her responsive teaching on the participation and learning of the student/s concerned; and
8. Prepares a presentation or a written report of the experience either to the tutor or to a group of fellow trainees. This should include a brief (one page) account of his or her professional development in responding to student diversity through the use of the handbook materials and reflective practice.



THINK



REFLECT



PLAN

This chapter has raised the two key issues of differentiated teaching and inclusive education together with the process of action research as a tool for one's professional development in responding to student diversity.

Did it make you ask any new questions about the way we teach? Here are some questions and activities you might like to make use of:

Concepts

- Does '*differentiated teaching*' entail '*inclusive education*', and vice versa? Why?

Personal experience of diversity

- Describe one of the earliest meetings with a person whom you saw as different from yourself in some important way. How did you react? What do you think of your reaction at the time? How does that experience relate to your experience of diversity in the schools?

Structure, content and use of the handbook

- This handbook links teaching issues directly to classroom practice. How do you feel about it? What do you think will be your major challenges in using the handbook in this way?
- What are your expectations about a course on responding to student diversity that this handbook may support?
- What do you think of the content of the handbook? Which do you think are the more important areas of this content for you?
- Are there any concerns in the area of responding to student diversity that you feel are not appropriately covered in this handbook?
- How would you like to be assessed in a unit covering the issues raised in this handbook?

Action research approach

- Is the action research approach new to you? Do you think it can help you to develop professionally?
- What challenges do you foresee to follow this approach?
- Have you made use of reflective writing in your professional development so far? How can reflective writing help you in your professional development?
- Think of a particular incident in your classroom experience as a student or as a teacher which involved issues of diversity. Write a reflective piece on it, including the steps illustrated in this chapter.
- Describe an educational situation that you often encounter and with which you are not very satisfied. Develop two ways of changing that situation, one from your normal viewpoint and one through Action Research. Describe the differences.

FURTHER READING

For a current account of European teachers' concerns about responding to diversity in the classroom, see

Humphrey, N., Bartolo, P., Ale, P., Calleja, C., Hofsaess, T., Janikova, V., Mol Lous, A., Vilkiene, V., Wetso, G. (2006). Understanding and responding to diversity in the primary classroom: An international study. *European Journal of Teacher Education*, 29 (3), 305–318.

For a current relatively brief and authoritative account of thinking around inclusive education, see

UNESCO (2005). *Guidelines for inclusion: Ensuring access to education for all*. Paris: Author (<http://unesdoc.unesco.org/images/0014/001402/140224e.pdf>)

For descriptions of Action Research and Reflective Practice and Writing, see

Levin, B.B., & Camp, J.S. (2005). Reflection as the Foundation for E-Portfolios (http://www.aace.org/conf/site/pt3/paper_3008_455.pdf downloaded 12.10.2006)

Reflective Practice (Journal of the Institute of Reflective Practice: <http://www.reflectivepractices.com/>)

Russell, T. (2005). *Action Research: Who? Why? How? So What?* (<http://educ.queensu.ca/~russellt/howteach/arguide.htm#arwhy> downloaded 20.12.2005)

CHAPTER

2

CREATING INCLUSIVE CULTURES

AIMS

The aim of this chapter is to challenge social exclusion and discriminatory attitudes and practices and to promote the celebration of diversity and the participation of all students in inclusive, child-centred schools and classrooms.

The more specific objectives of this chapter are to provide the reader with an opportunity:

1. To consider, within a European perspective, diversity as the norm of our society and schooling, particularly with regards to the need for multilingual and intercultural understanding and education.
2. To consider, at greater depth, the important influences of language and culture on children's learning, and the risk of social and educational exclusion of children coming from minority languages and cultures.
3. To reflect on gender differences and the importance and implications of gender equity in education.
4. To highlight the high risks for children with impairment to be excluded from learning because of attitudinal and accessibility barriers.
5. To consider the importance of changing school cultures, policies and practices towards a child-centred pedagogy that embraces the needs and strengths of all students, including those with impairments, to enable the active participation of all students.
6. To regard inclusive education as a plan of action, requiring commitment and skills for bringing about the necessary change for schools to respond to and celebrate student diversity.



What the teachers say ...

2. ON CREATING INCLUSIVE CULTURES

TEACHER FROM CZECH REPUBLIC: *There are schools and teachers who feel differences as a big problem that makes them busy... But I cannot say that all the teachers work like that; there are teachers in our schools who study new approaches, work on themselves, change themselves ... and they do not push children to changes which satisfy them – the teachers. ... Such teachers seek experiences from other experienced teachers, schools. ... After some time they begin to think about inclusion among adults (school workers, parents ...) – that it is an advantage that we all are different. Such teachers begin, together with a child, to seek, develop his/her talent. All participants in such a process begin to change their system of values – what is necessary for life, what we should teach at schools, and how and with whom....It is necessary to live inclusively, to begin off one's own bat, to believe this idea and not to give up, not to push ... Everything needs some time and maybe “drop by drop”,... but regularly, all the time – it will change And to put a good face on the fact that we will not reap the fruit of our endeavour. ... We can't save the world but we can begin.*

TEACHER FROM NETHERLANDS: *I try to keep children that are a little behind on one level, for instance verbally, in the group by exploiting other talents like drawing and by doing this they are also accepted. I notice that this works well because nobody is ever called stupid or nerd in our class.*

TEACHER FROM MALTA: *This year I have a boy who is a refugee, em ... They are all Christian, but we have had sometimes children who were not, and so I had to adapt also in the religion lesson. Sometimes we had children who varied also in their culture, and so I used to have lessons where everybody's culture was introduced so that there would not be clashes due to background. As I have this year, actually, and we are having lessons where we explain where he comes from and what his culture is like, and other information about him so the other children accept him more, you know, they understand some of his attitudes, because he was brought up in this way, he is used to things in a way that is different from what we are used to ourselves.*

DIVERSITY AS THE NORM IN THE EUROPEAN CONTEXT

This section aims to stimulate your reflection on cultural diversity as an essential element of European societies and on how this is impacting European classrooms.

Cultural and language diversity in the EU

THINK of the last class you were teaching. Did you see your students as one homogeneous group? If not, how were they different? How typical, do you think, is your class of the wider national and European context?



The European Union consists of a multiplicity of cultures within and across the 25 EU current member states and new applicants. While seeking to establish common democratic values, the EU at the same time supports the existing cultural diversity and promotes respect for such diversity.

The contradictory notion of Europeans being bound together by their diversity reflects the recognition, on the part of the Member States, that the objective of a European identity, based on a set of shared values, can only be achieved if a respect for *cultural diversity* is established as one of them (*Millennium Declaration*, 1999).

The respect for cultural diversity is evident most clearly in the EU's recognition, at great cost, of the right of people from the different states to communicate in their own native language. The EU has 20 official languages with official requirement in 2005 of around 2,000 written-text translators, and 80 interpreters per language per day, half of which operate at the European Parliament, at a total annual cost of 670 million euros (Owen, 2005: this article criticizes the EU on its costly promotion of multilingualism).

The European Union's citizens are bound together by common values such as freedom, tolerance, equality, solidarity, *cultural diversity*. (*Millennium Declaration*, Helsinki, 1999 http://www.europarl.europa.eu/summits/hel2_en.htm#I).

The *Treaty of Maastricht* (1993) stressed the celebration of diversity in the EU:

The Community shall contribute to the flowering of the cultures of the Member States, while respecting their national and regional diversity and at the same time bringing the common cultural heritage to the fore. (Article 128: <http://europa.eu.int/en/record/mt/title2.html>)

The same theme, but from the individual Member States' perspective, resurfaces in Article 6 of the *Amsterdam Treaty* (1997): "The Union shall respect the national identities of its Member States" (http://www.unizar.es/euroconstitucion/Treaties/Treaty_Amst.htm).

The *Maastricht Treaty* (1993) which, while allowing for the full responsibility of Member States for diversity of education provision, aimed at enabling intercultural interaction:

1. The Community shall contribute to the development of quality education by encouraging cooperation between Member States and, if necessary, by supporting and supplementing their action, while fully respecting the responsibility of the Member States for the content of teaching and the organization of education systems and their cultural and linguistic diversity.
2. Community action shall be aimed at:
 - developing the European dimension in education, particularly through the teaching and dissemination of the languages of the Member States;
 - encouraging mobility of students and teachers, inter alia by encouraging the academic recognition of diplomas and periods of study;
 - promoting cooperation between educational establishments;
 - developing exchanges of information and experience on issues common to the education systems of the Member States;
 - encouraging the development of youth exchanges and of exchanges of socio-educational instructors;
 - encouraging the development of distance education. (Article 126; For a critical review of inclusion policy in the EU, see Bartolo, 2003)

Intercultural challenges in the EU

Culture is not a thing or a substance with a physical reality of its own, but rather made by people interacting and determining further action. Culture is a set of shared and enduring meanings, values and beliefs that characterize national, ethnic or other groups and that orient their behavior. Culture is something shared by almost all members of a social group, something one tries to pass on, which shapes morals, laws, customs, behavior, structures and one's perception of the world (Leitner, 2000).

Cultures are based on different values that shape the mind-sets of individuals living in them. Culture is the collective programming of the mind, which distinguishes the members of one group or society from those of another. Culture consists of the patterns of thinking that parents pass on to their children, teachers to their students or friends to their friends. Cultures determine their way of looking at the world, values and what they consider as good and bad in their collective beliefs, a highly selective screen between people and the outside world. It is present in people's minds and becomes apparent in its institutions, and hence also in schools.

The interaction between national and European cultural identities contributes to finding common interests and bridging cultural diversity both at national and international level. It promotes easier mutual understanding of different needs, behavior and reactions and enables the construction of solutions to problems.

The search for **diversity cross-points** in its similarities as well as differences across nations and institutions paves the

road to the best practices in the classroom. This is the basis for the encouragement of links between educators and learners across Europe through the different agencies of the EU, including Comenius that has enabled the development of the materials for this DTMP module and handbook by seven European institutions.

Increasing heterogeneity of classrooms

On top of the cultural diversity inherent in the diverse national identities of the EU, educators across Europe are experiencing a significant increase in the heterogeneity of classrooms:

The continuous increase in the number of immigrants or refugees, and the social objective of the inclusion of all learners in the mainstream, including children with special needs, means that teachers/trainers are faced with socially, culturally and ethnically diverse pupils/trainees and challenges them to deal with more and more heterogeneous classes. (EC, 2003)

How some European teachers perceive diversity

We asked the question, ‘How are your children different?’ to 35 primary school teachers, five from each of seven European countries. They reported taking consideration of the following 13 differences among their students. We grouped them under four major dimensions:

- The first two concern the impact of different contexts on children’s development and learning: **A. Cultural background**, and **B. Classroom context**;
- The second two refer to the impact of the students’ individual characteristics: **C. Personality**, and **D. Readiness** (see Bartolo et al., 2005; Hofsäss et al., 2005; Humphrey et al., 2006).

A. Cultural background

i. family and home background:

Teachers saw differences in children’s approaches and needs due to their family composition, family situation, and home socio-economic background that needed to be tapped or compensated for.

ii. gender:

Some teachers reported concrete differences in their experience of boys' and girls' behaviour and also how this called for different teaching approaches.

iii. ethnicity and subcultures:

Teachers reported more heterogeneity due to increasing families' mobility and arrival of refugees, leading to the need to take into account knowledge or lack of knowledge of different types of lifestyles, vocabulary and religion. One teacher also pointed out that even within the same village children may come from different rival groups that required sensitivity to some issues of conflict.

B. Classroom context

iv. newcomers:

One important source of difference that these teachers were conscious of was the arrival of newcomers to the class group, either due to changes in grouping within the school, or due to transfers between state and other schools or to mobility between villages, or the arrival of refugees or even children adopted from other countries.

v. individual's good and bad days:

One teacher also noted that the same child may have his good and bad days, needing different approaches on the different days.

vi. different class-groups in the same year or from year to year:

One teacher who was teaching more than one class noted that there were differences also at whole class group levels: such as one class being more conformist than another, which teachers also see from year to year.

C. Personality (interest and behaviour, learning profile, and socio-emotional engagement)

vii. students' individual 'character', level of maturity:

These teachers felt the need to adapt to children's particular 'characters' or 'personality' or level of 'maturity'. One teacher adapted to different children's reactions to teasing. Another referred to the general level of behaviour as more or less 'mature'.

viii. motivation and interests:

Frequent reference was made to the motivation and interest of students. One teacher referred to one child as “still a very big challenge of how to get this child more motivated to work. Although we sometimes give him one-to-one help, but there still is some lock which we haven’t unlocked yet.” Another listed the particular interests of a boys’ class: “I have boys, so most of the time it’s football, at least getting to know the teams, and I try to watch football over the weekend so on Monday morning I’m alert, and I know what happened over the weekend...”

ix. behaviour:

These experienced teachers were able to manage all their children, but were also very worried about the behaviour of children who resisted engagement in learning activities. They also noted the different behaviours among the children, related their behaviour to their home situation and also associated some behaviours to gender. They referred to strategies they applied to meet these different needs.

x. learning patterns and multiple intelligences:

Some teachers had had training in the use of a particular learning style inventory that showed different combinations of four different patterns of learning in different children. They also reported that some children were more comfortable with particular modalities of learning over others, such as being good in maths but having difficulty in language, or weak in academic work but good at sports.

xi. special educational needs:

Some of the teachers had a child with identified special educational needs with whom they were involved in collaboration with an assistant, while others also expressed an interest in learning more about certain conditions such as dyslexia.

D. Readiness levels

xii. different readiness levels in physical development, language and reading;

Teachers, particularly of the younger years, noted big differences in children’s readiness for curricular learning. This was related to both psychomotor development as evident in P.E. and writing, as well as cognitive and language development. This is also related to the

children's birthdate, with those who are younger (in Malta those born between October and December) being seen as less mature and lower achievers.

xiii. different levels of ability:

These teachers showed sensitivity to the needs of both the more 'intelligent' and the 'weak' learners. They described them mostly in terms of those who learnt new concepts very quickly and needed extension versus those who needed more explanation and repetition of the same concept.

Diversity is an international phenomenon

The diversity reported by the EU teachers has also been strongly felt in the U.S. and at international levels (e.g. UNESCO, 2004). A foremost promoter of differentiated teaching in the U.S. (Tomlinson, e.g. 2003), has described most of the above diversities but in a slightly different conceptualization (see Box 2.1). She points out the importance of understanding (A) '*Students' cultures*' as a strategy for building positive learning environments; (B) she describes the classroom context under the term *Learning environment*; and (C & D) she identifies what she calls four '*student traits*' that students bring to the classroom, namely *Interest*, *Learning profile*, *Affect*, and *Readiness* that we described as students' personality and readiness.

We will be considering each of the above dimensions of diversity in more detail in later sessions. But you can probably already relate at least some of the above concerns to your classroom experiences.

THE IMPACT OF LANGUAGE AND CULTURE ON CHILDREN'S ENGAGEMENT WITH SCHOOLING

This section considers at greater depth the important influences of language and culture on children's learning, and the risk of social and educational exclusion of children coming from minority languages and cultures.

Culture clashes as potential barriers to learning

We start first with a consideration of the impact of culture on children's learning. It is internationally recognised that when children experience a clash of home and school cultures, there is a great danger of discrimination. Thus one always finds anti-discrimination

Box 2.1

Tomlinson (2003) refers to the diversity of student cultures, learning environments and four student traits that influence children's engagement with learning

Students' cultures. Work consistently to become familiar with students' cultures, languages, and neighbourhoods. What is valued in the student's world? What family roles and relationships matter? What are important celebrations? How does the grammar of the language work for students whose first language is not English? Each new insight holds clues to making teaching more responsive and more compelling. (p.40)

Learning environment has to do with both the operation and the tone of a classroom. ... Rules for members of the class, furniture arrangement, guidelines for how to get help with work, procedures for passing out and collecting materials, and so on, are part of the learning environment. A key ingredient in the learning environment is the 'mood' of the classroom. Is the classroom one that balances seriousness about work with celebration of success or one in which there is a great deal of 'loose' time and a sense of obligation and drudgery about work? Is there consistent evidence of respect for everyone in the classroom – or does this seem to be a place where some students seem favoured, while some appear out of favour with the teacher or peers or both? (p.5)

Interest refers to those topics or pursuits that evoke curiosity and passion in a learner. These are facets of learning that invite students to invest their time and energy in the pursuit of knowledge, understanding, and skill. Students bring to school interests in particular areas. School also offers the opportunity for students to realize new interests. Thus, highly effective teachers attend both to developing interests and as yet undiscovered interests in their students. Students whose interests are tapped and deepened in school are more likely to be engaged and to persist in learning (Csikszentmihalyi, 1990; Maslow, 1962; Sousa, 2001; Wolfe, 2001). (p.3)

Learning profile refers to how students learn best. Preferences for learning are shaped by a constellation of overlapping and interlocking student factors. Those include learning style, intelligence preference, culture, and gender. If classrooms can offer and support different modes of learning, it is likely that more students will learn more effectively and efficiently (Campbell & Campbell, 1999; Sternberg, Torff, & Grigorenko, 1998; Sullivan, 1993). (p.3)

Affect has to do with how students feel about themselves, their work, and the classroom as a whole. What excites one student about spelling may discourage another, or what makes one student feel successful may discourage another. A teacher in a differentiated classroom attends to student emotions or feelings (affect) as well as to student cognition. In fact, the two are inextricably bound. Positive student affect is far more likely to support student learning than is negative, or even neutral, affect (Given, 2002; Wolfe, 2001). ... student affect is the gateway to helping each student become more fully engaged and successful in learning. (p.4)

Readiness refers to a student's knowledge, understanding, and skill related to a particular sequence of learning. A student's general cognitive proficiency affects his or her readiness, but readiness is also profoundly influenced by a student's prior learning and life experiences, attitudes about school, and habits of mind. This model of differentiation uses the term *readiness* rather than *ability* because ability generally seems more fixed, less amenable to intervention, whereas readiness can vary widely over time, topic, and circumstance. Only when a student works at a level of difficulty that is both challenging and attainable for that student does learning take place (Howard, 1994; Jensen, 1998; National Research Council, 1999; Sousa, 2001; Vygotsky, 1962, 1978; Wolfe, 2001). Thus, if readiness levels in a class vary, so must the complexity of work provided for students. (p.3)

statements in legal provisions for the protection of human rights. For instance, Art 2 of the *UN Convention on the Rights of the Child* sets out 10 conditions that could lead to potential discrimination:

States Parties shall respect and ensure the rights set forth in the present Convention to each child within their jurisdiction without discrimination of any kind, *irrespective of the child's or his or her parent's or legal guardian's race, colour, sex, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status.* (italics added)

All of these are related to cultural differences that could have an impact on the child's self perception as a learner as well as on his or her values and ways of interacting and approaching the different domains of knowledge and skills:

Article 21 of *The Charter of Fundamental Rights of the European Union* has a long list of potential sources of discrimination that are prohibited:

Any discrimination based on any ground such as sex, race, colour, ethnic or social origin, genetic features, language, religion or belief, political or any other opinion, membership of a national minority, property, birth, disability, age or sexual orientation shall be prohibited.

Many children bring to school not only a new language, but also cultural ways of using language that differ from those of mainstream school culture (Heath, 1983; Zentella, 1997). These differences can lead teachers to underestimate or misinterpret the competence of students. In order for all students to have equal opportunities for educational success, teachers must be aware not only of what children need to learn, but also of the knowledge and skills that they bring from their linguistic and cultural



Multiculturalism and the need to respect diverse cultural identities

backgrounds (Cummins, 1986; Fillmore & Snow, 2002; Genesee, 1994; Moll, Amanti, Neff, & Gonzalez, 1992). (Park & King, 2003, p.1)

It has been noted that while globalization is leading to a global culture, at the same time there is more understanding of the richness of the different cultures and the importance of one's culture for the development of a healthy self-identity:

The paradoxical situation we are experiencing is that the cultural differences in our globalized and informational societies are probably fewer than during other moments of history. Most certainly, the communication media impose a cultural model and are authentic "factories" of cultural assimilation, if not hybridization. Yet the recovery of cultural identity and the demand for its recognition are greater than ever. (Bolivar, 2002)

The school institution, created for assimilative ends, now faces the challenge of responding to multiculturalism, after having passed from assimilation to tolerance, and from tolerance to recognition. But if multiculturalism is a fact, multiculturalism is an error. The program of educational policy, whether macro or micro, must be something different: interculturalism; i.e., the defence of common learning, values and standards of interaction enriched by the contributions of all, yet respectful of differences not representing a threat to their existence (Fernández Enguita, 2002).

Schools are still widely seen as socializing children into the dominant culture of the nation. With the increasing multiculturalism of modern societies, they are now challenged with the task of enabling persons from a pluralism of cultures to interrelate and enrich each other. While the European Union citizenship is clearly multicultural, there is also one nation that claims to have been multicultural in its very conception: Canada. This is how the Canadians describe their multiculturalism:

Canadian multiculturalism is fundamental to our belief that all citizens are equal. Multiculturalism ensures that all citizens can keep their identities, can take pride in their ancestry and have a sense of belonging. Acceptance gives Canadians a feeling of security and self-confidence, making them more open to, and accepting of, diverse cultures. The Canadian experience has shown that multiculturalism encourages racial and ethnic harmony and cross-

cultural understanding, and discourages ghettoization, hatred, discrimination and violence.

Through multiculturalism, Canada recognizes the potential of all Canadians, encouraging them to integrate into their society and take an active part in its social, cultural, economic and political affairs. (http://www.canadianheritage.gc.ca/progs/multi/what-multi_e.cfm)

Intercultural education is now a domain of study on its own with its international society: “Since 1984 the International Association for Intercultural Education has brought together professional educators interested in diversity and equity issues in education. This is defined quite broadly, and includes intercultural education, multi-cultural education, anti-racist education, human rights education, conflict-resolution, multi-lingualism issues, etc.” (http://www.iaie.org/1_about.htm)

The need to respect cultural diversity has been reaffirmed in the *UNESCO Universal Declaration on Cultural Diversity* adopted unanimously at the 31st UNESCO General Conference in October 2001 (see Box 2.2).

Box 2.2

World recognition of entitlement to diverse cultural identities (UNESCO, 2001)



Cultural rights are an integral part of human rights, which are universal, indivisible and inter-dependent. The flourishing of creative diversity requires the full implementation of cultural rights as defined in Article 27 of the Universal Declaration of Human Rights and in Articles 13 and 15 of the International Covenant on Economic, Social and Cultural Rights. All persons have therefore the right to express themselves and to create and disseminate their work in the language of their choice, and particularly in their mother tongue; all persons are entitled to quality education and training that fully respect their cultural identity; and all

persons have the right to participate in the cultural life of their choice and conduct their own cultural practices, subject to respect for human rights and fundamental freedoms. (Article 5)

(http://portal.unesco.org/education/en/ev.php-URL_ID=19742&URL_DO=DO_TOPIC&URL_SECTION=201.html)

Dangers of discrimination and segregation of minorities

Moreover, cultural differences must not be taken for granted, nor must we forget the tendency for discrimination and segregation.

The car burning riots of France in November 2005 are an important warning of the potential for segregation of ethnic groups (in this case immigrants) and its consequences. The Eurobarometer and European Social Survey of *Majorities' attitudes towards minorities* (EUMC, 2005) showed that over the period 1997-2003 there continued to be substantial resistance to ethnic diversity among EU countries, shown in the following three dimensions:

Limits to multicultural society

The view that there are limits to multicultural society was supported, over the survey periods, by a growing majority of nearly two out of three people in the 15 EU Member States. However, this view was less widespread in Candidate Countries.

Opposition to civil rights for legal migrants

Four out of ten survey respondents in the 15 EU Member States, and a similar number in Candidate Countries, were opposed to civil rights for legal migrants with this view remaining stable over the different survey periods. This view was strongest in west and central European countries, and also in the Baltic States, and less widespread in Mediterranean and East European countries.

Favour repatriation policies for legal migrants

An increasing minority of respondents from the 15 EU Member States, about one in five, were in favour of repatriation policies for legal migrants over the different survey periods. This view was similarly held in some Candidate Countries. Respondents from Nordic and East European countries were hesitant in their support for this view, whereas respondents from Mediterranean and central European countries showed strong *support for repatriation policies*. (EUMC, 2005, p.12; compare also U.S. situation: HSEN, 2001)

It should be noted that the tendency for exclusion of minorities by the majorities may apply to all types of minorities. For instance, a European concern has been that of homophobic attitudes that can lead to bullying and exclusion of students with a minority sexual

orientation – gay, lesbian, bisexual or transgendered (Rivers, 2001), though most studies concern secondary students. Similarly, studies also show that overweight and obesity may interfere with children's social relations and therefore emotional development (Janssen et al., 2004).

THE IMPACT OF GENDER ON CHILDREN'S LEARNING

This section considers the potential impact of students' gender on their learning experience.

Gender inequalities in context

In developing countries there is evidence that women are disadvantaged with regards to schooling: a smaller proportion of girls than boys attend school. Thus the fifth of the six UNESCO goals for Education For All (EFA) targets:

Eliminating gender disparities in primary and secondary education by 2005, and achieving gender equality in education by 2015, with a focus on ensuring girls' full and equal access to and achievement in basic education of good quality. (Cited in UNESCO, 2005, p.37)

Continuing lower engagement of girls in the sciences

However, in European countries perceptions are changing. There is concern that female participation in science is still much smaller than that of males:

Gender differences in mathematics

Previous sections have examined how performance differs among males and females in the different mathematical content areas. This section draws this information together.

Policy-makers have given considerable priority to issues of gender equality, with particular attention being paid to the disadvantages faced by females. Undeniably, significant progress has been achieved in reducing the gender gap in formal educational qualifications. Younger women today are far more likely to have completed a tertiary qualification than women 30 years ago: in 18 of the 29 OECD

countries with comparable data, more than twice as many women aged 25 to 34 have completed tertiary education than women aged 55 to 64 years. Furthermore, university-level graduation rates for women now equal or exceed those for men in 21 of the 27 OECD countries for which data are comparable (OECD, 2004).

However, in mathematics and computer science, gender differences in tertiary qualifications remain persistently high: the proportion of women among university graduates in mathematics and computer science is only 30 per cent, on average, among OECD countries. In Austria, Belgium, Germany, Hungary, Iceland, the Netherlands, Norway, the Slovak Republic and Switzerland this share is only between 9 and 25 per cent (OECD, 2004).

Much, therefore, remains to be done to close the gender gap in mathematics and related fields in tertiary education and evidence suggests that action in this area needs to be targeted at youth and, indeed, children. At age 15, many students are approaching major transitions from education to work, or to further education. Their performance at school, and their motivation and attitudes towards mathematics, can have a significant influence on their further educational and occupational pathways. These, in turn, can have an impact not only on individual career and salary prospects, but also on the broader effectiveness with which human capital is developed and utilised in OECD economies and societies. (OECD, 2004).

‘Underachievement’ of boys

While there is the above continuing concern over lower female engagement and performance in the sciences, there is now also a new concern over the ‘underachievement’ of boys, with a ‘popular conjecture on this topic’ in the UK being that:

Primary schoolboys’ needs aren’t being met – specifically that emphasis should be given to boys’ preferred learning styles together with the provision of more male teachers to act as role models in order to enhance their performance. (Skelton & Francis, 2003, p.3)

Fletcher (2006) observed that, “In general, boys don’t enjoy writing as much as girls. What’s wrong? How can we do a better job of creating “boy-friendly” classrooms so their voices can be heard?”

He asks teachers to imagine the writing classroom from a boy’s

perspective, and consider specific steps we might take to create stimulating classrooms for boys:

Topic choice emerges as a crucial issue. The subjects many boys like to write about (war, weapons, outlandish fiction, zany or bathroom humor) often do not get a warm reception from teachers. Fletcher argues that we must “widen the circle” and give boys more choice if we want to engage them as writers. How? We must begin by recognizing boys and the world in which they live. *Boy Writers* explores important questions such as:

- What subjects are boy writers passionate about, and what motivates them as writers?
- Why do boys like to incorporate violence into their stories, and how much should be allowed?
- Why do we so often misread and misunderstand the humour boys include in their stories? (Fletcher, 2006, promotional note)

Marsh (2003) addresses this issue in a different way through “a more fundamental look at the nature of the curriculum itself and explores how far the literacy curriculum offered in primary schools is relevant to the current needs of boys *and* girls”.



Fun activities open to all increase social understanding and inclusion

A curriculum that reflects the needs of all children in today's society

Marsh argues that the picture of literacy achievement and gender is much more complex, particularly interacting with social class: "Some groups of working-class girls perform less well than some groups of middle-class boys." Moreover, the nature of literacy has been changing due to technological innovations, such as through the use of mobile phones, interactive television, and the internet.

Thus, one of the ways in which motivation for literacy by both boys and girls can be increased is through the use of popular culture such as that of the *Batman* superhero (see Marsh, 2003). Both boys and girls in primary classrooms were enthusiastic in the role plays at the *Batman and Batwoman HQ* which involved them in writing. Moreover, these popular cultural texts can "provide a very useful source of material for developing critical literacy in relation to gender roles": children were invited to look at texts and examine what they said to them about what it meant to be a girl or boy. Marsh concludes:

What is needed is careful attention to how well the current literacy curriculum reflects the needs and interests of *all* children in today's society, given the technological changes taking place and the wide range of cultural interests which inflect children's out-of-school literacy activities. Ensuring that a wide gulf does not exist between schooled literacy practices and children's out-of-school interest will not only motivate boys, it will ensure that girls are engaged in a wider range of literacy activities than may often be the case for them. (Marsh, 2003, p.75)

HOW CHILDREN WITH IMPAIRMENTS ARE OFTEN EXCLUDED FROM PARTICIPATION IN LEARNING

This section aims to highlight the high risks for children with impairment to be excluded from learning because of attitudinal and accessibility barriers.

Understanding discrimination

We are presently faced with two contrasting situations in our education systems: (1) current policy documents tend to favour inclusive education that respects all children's diversity; (2) at the

same time we continue to witness a wide experience of school exclusion and failure by a substantial number of children in Europe (EC, 2001).

When children drop out or do not participate in regular learning activities, it is as if we do not yet have 'education for all' (UNESCO, 2005). *The Dakar Framework for Action – Education for All* (2000) placed a special emphasis on those learners who are the most vulnerable to marginalization and exclusion: 'one cannot achieve education for all if a group or groups of children are excluded from education' (UNESCO, 2005, p.29).

Children with impairment have always presented a challenge to the drive for education for all because it was clearly not possible to meet their educational needs unless some form of different or additional support was provided to enable them to access, physically or otherwise, the classroom and meaningful learning. This led to the creation of special education.

Supporting children with Individual Educational Needs

In the approach adopted in this handbook we have considered student diversity as the norm: it is normal to be different. Within such a perspective, we should not be talking about special education and special educational needs (SEN), but rather about responding to all the diversity of student needs. Indeed, it has been argued that by using the term 'special', one excludes these children from the norm. In Malta, the use of the term special has been dropped and instead children who require additional support are regarded as having individual educational needs (IEN) with the implication that it is normal to have some form of individual educational need at some point in one's education, and that it is part of the regular spectrum of common to particular group to particular individual needs that all schools have to address.

However, there are very few educational systems that have indeed adopted diversity as the norm. Educators are faced with a dilemma: Should students who need additional support beyond what the teacher can 'normally' cater for be identified (or labelled or, in the UK and Malta, have a Statement of special educational needs)? Or can their needs be met as part of the regular support provisions of the school?

There is at least one place in Norway where an authority boasts of 'Zero Statementing', that is that all support needs are catered for as

a regular feature of school services (reported at ISEC 2005 by Kari Nes). However, the most widespread way of providing additional support for children with IEN has been through identifying the individual educational needs due to atypical impairments of the student that justify the allocation of individual (additional) educational provisions to meet such needs. As parents find that their children are not provided with the needed resources, and schools that they do not actually have the necessary funds and resources, both parents and schools resort to requests for labelling children as having IEN to force the education authorities to allocate the required additional support.

Barriers to learning

One way in which to think of impairment within the perspective of diversity as the norm is to frame it within the concept of barriers to learning: teachers are constantly helping students overcome whatever hinders their learning, and impairment is just one of the possible barriers to learning. If a student has a visual impairment, then the teaching and learning has to be adapted to overcome the



Mobility impairment should not be a barrier to participation in learning and other activities

Barriers to learning and IEN

It is widely recognized that “on average between 15-20% of all students will have special needs at some time in their school careers. This means that in an average class of 30 pupils, between four and six will be in need of special help to access the curriculum at some point during their schooling” (OECD, 1999).

Moreover, while most formally identified students with impairments or individual educational needs (around 2-6%) used to be placed in special schools, there has been an increasing trend for these students to attend regular schools. For instance, in Malta, 2.57% of students are Statemented, but only 0.41 attend special schools (Spiteri et al., 2005).

However, it should be noted that there is great variation across Europe in the placement of students with special needs in regular and special units or schools. Teachers in Malta are now faced with the challenge of adapting teaching and learning also for students with impairment. They are usually supported by additional personnel in the classroom (learning support teachers or learning support assistants) as well as specialists in various areas of development, such as psychologists, speech-, physio- and occupational therapists. However, teachers still have responsibility for ensuring that they are making the accommodations and adaptations necessary to overcome different barriers to learning (See Smith et al., 2004).

barrier of lack of vision by providing for alternative ways of communication such as auditory and tactile media. If a student has a hearing impairment, then the educators have to provide alternative visual support for communication. If a student has a mental impairment, then the educators have to provide an adapted curriculum so the student can still master the targeted learning goals. If a student is experiencing emotional and behavioural difficulties, then the educators have to provide the supportive relationships and management strategies that enable the student to engage in constructive learning and relationships.

The implication here is that educators are committed to understand the needs of and enable each student to have access to learning. One has therefore to understand what kind of barrier to learning is created by any condition within the child or within the context (the curriculum, teaching process, or learning environment).

The attitude barrier

It should first be pointed out that a major barrier to learning faced by persons with impairments is the negative attitudes of the deficit model of education. There is a tendency for educators to focus on the *disability*. Persons with impairments are thus usually faced with lower expectations for their learning and development. ‘Negative attitudes towards differences and resulting discrimination and prejudice in society manifest itself as a serious barrier to learning’ (UNESCO, 2005, p.23). Non-disabled persons have difficulty understanding the accessibility problems faced by the minority group of persons with impairments. One of the authors has experienced the following situations a number of times:

- Non-disabled persons sometimes think

that persons with physical and sensory disability make too much fuss about what to them is essential for participation, namely the removal of barriers for physical access to learning environments: such as accessibility to different floors for wheelchair users, accessibility to auditory and visual information for hearing and visually impaired.

- Persons with mental disability are often not appreciated as worthy learners entitled to development of their potential and often have difficulty accessing learning or are not challenged appropriately.
- Persons with dyslexia are faced by teachers who blame them as lazy and do not attempt to enable them to overcome the difficulties in acquiring and using literacy skills.

That is why in this handbook we are giving a lot of weight to developing a positive attitude to diversity (see UNESCO, 2005, pp. 22-28).

Technical barriers

In addition to attitude barriers, each condition requires particular adaptations of teaching and learning to enable access to the curriculum. Though most of the adaptation is really an extension of good teaching, specific knowledge of how to overcome barriers to learning due to, for instance, autism can be helpful in enabling the child to access learning more easily (Bartolo, 2000; Smith et al., 2004).

UNDERSTANDING THE PRINCIPLES OF INCLUSIVE EDUCATION

This section considers the importance of changing school cultures, policies and practices towards a child-centred pedagogy that embraces the needs and strengths of all students, including those with impairments, to enable the active participation of all students.

Exclusion in a one-size-fits-all approach

Children with impairment often experience exclusion even inside a regular class if the school and teachers adopt a one-size fits-all approach.

1. First of all because their patterns of behaviour and learning may be different from the norm and are therefore very liable to misinterpretation:

When practitioners assume that there is a “mainstream behaviour” that should be used as the sole criterion for healthy development, children find themselves misdiagnosed and inappropriately treated and find their learning potential miscalculated, not because they have not learned a great deal, but because they have not learned the things that schools value. Misunderstanding cultural differences leads schools inappropriately to place minority children who are developmentally normal into special education and low-ability groups, and to expect less from them than from other children. For instance, they tend to evaluate poor black children as less mature and hold lower expectations for them than for children whose socioeconomic status is higher (Entwisle and Alexander, 1989). Such an interpretation of cultural differences presents an obstacle to children's learning in school. (Bowman, 1994: <http://www.ncrel.org/sdrs/areas/issues/educatrs/leadrshp/le0bow.htm>)

2. Secondly, when there is a one-size-fits-all whole-class teaching system, those who are not within the norm tend to be seen as a problem. Thus, for instance, while more and more students with impairment are placed in mainstream, their education is relegated to extra staff in order for them not to ‘interfere’ with the education of the rest of the non-disabled class (Bartolo, 2001).

The deficit model as a tool for exclusion

Looking at difference as a problem is a result of the *deficit model* of education. This model is based on one-size-fits-all expectations about ‘normal’ healthy development for different ages against which all children are measured. If they do not meet the norms, then they are regarded as having some form of deficit; moreover, the deficit is seen as arising from within the children themselves rather than from a failure to teach or a failure of the curriculum.

With the present increasing emphasis on ‘standards’ for education and whole societies, there is a greater possibility for schools to focus on deficits and thus *create* failures. By insisting on a one-size-fits-all

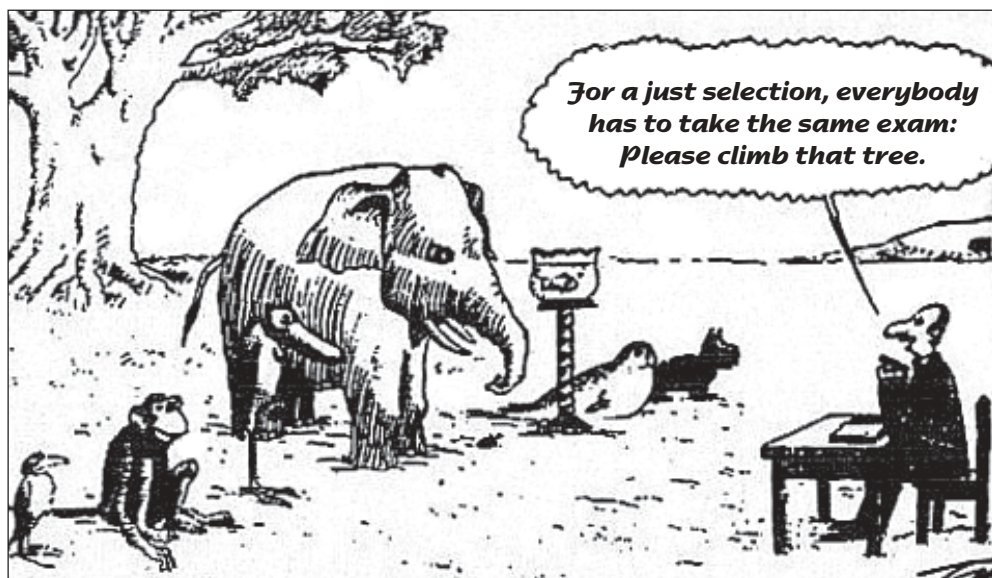


Figure 2.1: Are one-size-fits-all examinations evidence of a just education?

standard of achievement and behaviour, as represented by rigid national examination systems (see Figure 2.1), we might be automatically excluding some students from the regular curriculum. Educators tend to see those who do not reach expected standards or follow expected norms as being ‘failures’. Moreover, they tend to blame the children themselves as being responsible for their own failure (Barton & Slee, 1999).

The elephant in Figure 1 has no opportunity for passing the examination, even with excellent teaching and year-round training. If compulsory teaching consists of training to climb the tree, he or she will therefore lose interest in it or feel a constant failure. But of course the elephant would do very well if the task was carrying tree logs. Are we treating many of our children like this elephant?

Thus the *deficit model* leads educators to focus on what students *cannot* do rather than what they *can* do; additionally one blames the children themselves for lack of achievement. Teachers who do not reflect deeply about this phenomenon, end up believing that children who fail at school cannot benefit from schooling and that school is not for them, and that there is not much one can do about the situation. Thus they end up passively or actively excluding these children from the school curriculum. Such an approach removes the responsibility of teachers for enabling learning, whereas there is evidence that teacher attitudes can greatly influence student adaptive behaviours (Ofsted, 2005).

Research has shown that social exclusion starts from birth, tied to the children’s deprived home environment and neighbourhood (Lupton & Power, 2002) or to the parents’ inadequate response to

their child's individual needs (Beckwith, 1990), and is immediately reinforced at preschool and then throughout their schooling. Socially excluded children are burdened with low expectations and the consequences of inadequacy in an alien academic school culture from the beginning (Park & King, 2003).

Inclusive education calls for changes in schools to welcome student diversity

The call for schools to change towards more inclusive approaches has long been made. It has been based on the experience of trying to integrate or 'mainstream' students with impairment in regular schools. These students were placed in regular schools, but schools did not really accommodate their approach to include their diversity of needs. A recent UNESCO document puts the story briefly:

Inclusion as we know it today has its origins in Special Education. The development of the field of special education has involved a series of stages during which education systems have explored different ways of responding to children with disabilities, and to students who experience difficulties in learning. In some cases, special education has been provided as a supplement to general education provision, in other cases it has been entirely separate. In recent years, the appropriateness of separate systems of education has been challenged, both from a human rights perspective and from the point of view of effectiveness. Special education practices were moved into the mainstream through an approach known as "integration". The main challenge with integration is that "mainstreaming" had not been accompanied by changes in the organisation of the ordinary school, its curriculum and teaching and learning strategies. This lack of organisational change has proved to be one of the major barriers to the implementation of inclusive education policies. Revised thinking has thus led to a re-conceptualisation of "special needs". This view implies that progress is more likely if we recognize that difficulties experienced by pupils result from the ways in which schools are currently organized and from rigid teaching methods. It has been argued that schools need to be reformed and pedagogy needs to be improved in ways that will lead them *to respond positively to pupil diversity* – seeing individual differences not as problems to be fixed, but as opportunities for enriching learning. (UNESCO, 2005, p. 9)

It is worth taking time to reflect on the difference made above

between the **attempt to make the child fit a given school environment (*integration*) and changing the educational environment to meet the needs of the child (*inclusion*)**. Since the 1970s, many countries in Europe shared the international concern about the *integration* of children with disability into mainstream schools. The term ‘integration’ is still sometimes used interchangeably with ‘inclusion’, but the above extract from UNESCO applies the term more specifically to the attempt to make students with disability fit into regular schools. Such a focus is better captured by the term *mainstreaming*, coined in the United States of America, and used here to refer to the movement towards having more and more students with disability placed in mainstream rather than special schools (Steinback & Steinback, 1990).

In integration, the majority sets the norms to which it expects, and maybe supports, the person who is different (and not equally valued) to change his or her identity/skills to become like the majority. In inclusion a voice is given to the experience of each individual and group who are equally valued. In inclusion there is an appreciation of different identities and skills of each person or group who are listened to and enabled, with their different cultures and attributes, to participate fully in the cultures, policies and practices of the school (or indeed the region or the whole EU society - see e.g. Bartolo, 2003; Halvorsen & Neary, 2001).

An inclusive school, or society, is based on an appreciation, acceptance and indeed *celebration of diversity*. It welcomes into its cultures, policies and practices, the fresh input from diverse persons as full members within it. It does not try to make every person ‘normal’. Rather people within it feel that it

Inclusion of a person in a group goes beyond integration – it implies not only placing the person with the rest of the group, but also enabling him or her to use his or her qualities to actively participate in the group’s activities. It is the level of meaningful participation of each individual that should be the measure of how much the school is including that individual.

The integrative approach adopts a dominating, intolerant position, denying the minority person the right to be different. **Inclusion goes beyond integration and the charitable face often worn by solidarity.** As one young Maltese person with physical disability put it:

The strong is duty bound to help the weak. This is the mentality which the disabled has to live with when he comes face to face with society. Is this a fair mentality towards the disabled? Yes, only to a certain extent, because in everyday life we find that this kind of mentality is more apt to hinder us than to help us. In the sense that the strong has still not sufficiently understood how the weak can help the strong.

We can manage to help the strong by making use of our potential. However we must have open to us those opportunities and adequate means for this to materialise. (Mercieca, 1989, p.11)

is normal to be different. Difference is seen as a resource rather than a problem in a collaborative and supportive network of an inclusive community (Booth & Ainscow, 2002). This is by no means an easy task to balance with the 'normative' function of schools (Marinossou, 2001). But the higher collaborative and supportive effort that is stimulated leads to everyone's enrichment (UNESCO, 2005).

Inclusion, therefore, is about "how to develop regular school and classroom communities that fit, nurture, and support the educational and social needs of every student in attendance" by making the regular school "a place where everyone belongs, is accepted, supports, and is supported by his or her peers and other members of the school community" (Stainback & Stainback, 1990, pp.3-4; see also Giangreco, 2007).

Two major principles of inclusive education

Teachers who are inclusive, and are able to reach out to the diversity of student strengths and needs, usually have two basic positive beliefs about children's education: (1) they are convinced that each child has potential for learning and progress; and (2) they hold strong ethical convictions about each child's right to a quality education within a high valuing of social justice and equality.

(1) An inclusive educator believes that each child has the potential to learn, to make worthwhile educational progress.

This belief should apply to all children without exception, whatever their characteristics. It should first of all apply to all those children who are seen as 'failures' and eventually 'drop outs', or rather outcasts of the education system.

However, students with impairments and particularly with intellectual impairment are at greater risk for being seen as not belonging to the education system with teacher making such statements as, 'What is he/she getting from attending here?'. It is easier to discriminate against such persons, having low expectations of them and not considering worthwhile the effort and resources required to provide them with equal opportunities for learning. There is a tendency to focus on their deficits, represented by the labels: handicapped, disabled, deaf, Down syndrome, autistic, maladjusted etc.

Persons with disability themselves, however, have spoken strongly against such deficit labelling and consequent discrimination (see e.g.

Barnes, Mercer & Shakespeare, 1999). They see the discriminatory attitudes of society as the most difficult obstacle to their education and learning (UNESCO, 2005).

(2) Secondly, inclusive educators believe that each student has a right to a quality education as much as any other student.

Inclusive educators also deeply understand that providing a quality education for each child, whatever his or her characteristics, is not some form of charity. Each student is *entitled* to such opportunities “without discrimination of any kind, irrespective of the child’s or his or her parent’s or legal guardian’s race, colour, sex, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status” (UN, 1989).

The right to education is indeed recognized world wide. The signatories of the *UN Convention on the Rights of the Child* (1989) <http://www.unicef.org/crc/> stated that: “The education of the child shall be directed to the development of the child’s personality, talents and mental and physical abilities to their fullest potential ...” This article “insists upon the need for education to be child-centred, child-friendly and empowering” (UNESCO, 2001).

This belief was very strongly stated and elaborated in relation to children with impairment in the *UNESCO Salamanca Statement and Framework for Action* (1994) as cited in the Introduction (UNESCO, 1994, http://www.unesco.org/education/pdf/SALAMA_E.PDF)

The implications of the above for students and teachers in the classroom may be stated thus:

Every student is entitled to the promise of a teacher’s enthusiasm, time, and energy ... It is unacceptable for any teacher to respond to any group of children (or any individual child) as though the children were inappropriate, inconvenient, beyond hope, or not in need of focused attention. (Tomlinson, 1999, p.21)

DESIGNING INCLUSION: INCLUSION AS A PLAN OF ACTION FOR SCHOOLS

This section is intended to enable you to see inclusive education as a plan of action, requiring commitment and skills for bringing about the necessary change for schools to respond to and celebrate student diversity.

The *Salamanca Statement* (1994) linked this strategy to “a child-centred pedagogy”:

Special needs education incorporates the proven principles of sound pedagogy from which all children may benefit. *It assumes that human differences are normal and that learning must accordingly be adapted to the needs of the child rather than the child fitted to preordained assumptions regarding the pace and nature of the learning process.* A child-centred pedagogy is beneficial to all students and, as a consequence, to society as a whole. Experience has demonstrated that it can substantially reduce the drop-out and repetition that are so much a part of many education systems while ensuring higher average levels of achievement. A child-centred pedagogy can help to avoid the waste of resources and the shattering of hopes that is all too frequently a consequence of poor quality instruction and a ‘one-size-fits-all’ mentality towards education. Child-centred schools are, moreover, the training ground for a people-oriented society that respects both the differences and the dignity of all human beings. (UNESCO, 1994, p. 7; see Bartolo 2001 as an example of the application of this principle to a National Curriculum).

Adapting the school to the students' diversity of needs

Beliefs in each child's potential and right to a quality education have to be translated into action. Such action leads educators, in the first place as stated above, to focus on changing the educational environment to meet the needs of the child (*inclusion*), rather than attempt to make the child fit a given school environment (*integration*).

How does one adapt the school and the curriculum to the diversity of needs of all its students? How does one ensure full participation of each student in the life and learning activities of the classroom and school?

Giangreco (2007), for instance, suggests two main ways in which the curriculum could be adapted to facilitate the participation of students with significant disabilities: (a) through *multilevel* curricula where students share an activity while working towards outcomes within the same curriculum area but at different grade levels; and (b) through *overlapping* curricula where “students with disability and nondisabled peers participate in an activity, but they pursue learning outcomes from different curriculum areas, including such broadly defined curriculum areas as social skills.”

For such inclusive practices to develop, a school needs to nurture an inclusive culture. An overall strategy, therefore, can be set in place through a three-pronged action for “the creation of inclusive cultures, the production of inclusive policies, and the evolution of inclusive practices” (Booth & Ainscow, 2002).

Inclusive cultures, policies and practices

The move towards inclusive education, that is towards the development of schools that respond to student diversity and enable

every child to belong and participate, requires a wide strategy that is conceived within theories of social change. In the UK, based on the experience of theory and practice of school improvement, inclusion experts have suggested that making a school or classroom more inclusive requires the consideration of three dimensions, namely inclusive cultures, policies and practices (Booth and Ainscow, 2002, see Figure 2.2):

Dimension A: Cultures:

The creation of inclusive school cultures entails the promotion of those beliefs and value systems that create a secure, accepting, collaborating, and stimulating community for *all* students.

Dimension B: Policies:

The development of inclusive school policies entails the introduction of explicit aims for promoting inclusion in School Development Plans and other guidelines for practice in the management, teaching and learning in our schools.

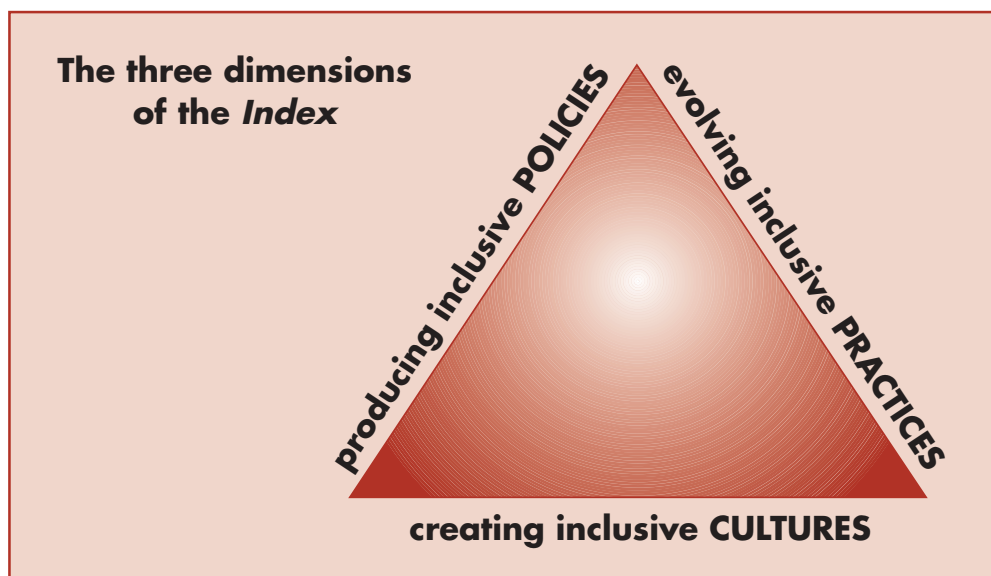
Dimension C: Practices:

The organisation of inclusive school practices calls for practices that reflect inclusive school cultures and policies by ensuring that



A teacher assistant enables a child with IEN to participate in the lesson

Figure 2.2: The three dimensions of the Index for Inclusion (Booth & Ainscow, 2002)



classroom and extra-curricular activities encourage the participation of all students and draw on their knowledge and experience outside school.

Index for inclusion

One way of considering how far a school is committed to inclusive education is to consider the list of *indicators* of inclusive cultures, policies and practices produced by the *Centre for Studies of Inclusive Education* of the UK (Booth and Ainscow, 2002). For instance, one indicator of an inclusive school culture is: “Everyone is made to feel welcome.” The school’s culture can be measured along this indicator by asking more detailed questions like: “Is the first contact that people have with the school friendly and welcoming? Is the school welcoming to all students, including students with impairments, travellers and asylum seekers? Is the school welcoming to all parents/carers and other members of its local communities? ... (Booth & Ainscow, 2002).

This index has been adapted in other countries including Malta (Bartolo et al., 2002 - www.education.gov.mt/ministry/doc/inclusive_schools.htm)

Inclusion and responding to diversity is a never-ending process

Educators’ efforts at making a school more inclusive and more responsive to student diversity must be a constant struggle. There is no such thing as an inclusive school, but rather “a process of inclusion

that has no limits” (Ballard, 1995, cited in Ainscow, 1999). Similarly responding to the diversity of students’ strengths and needs is never fully achieved. Inclusive education is an ongoing process for removing barriers to learning and participation and for ensuring the active participation of all students in regular education. Inclusive teachers are constantly reflecting on the learning processes in their classrooms to ensure that no student is excluded from class membership, from classroom and extra curricular activities. They are constantly struggling to ensure a supportive learning environment for all and each of their students. They are also constantly struggling to ensure that students have an opportunity to make use of their strengths to enhance their learning. They are also constantly concerned with empowering their students to become autonomous learners.

Challenging one’s own beliefs

To be able to respond to student diversity, the teacher needs to reflect on his or her own beliefs about teaching and learning. This is particularly necessary because most of us have been educated and are engaged in teaching in school situations with a strong philosophy and practice of one standard curriculum for all. We may thus find it ‘natural’ to label those who do not meet curricular norms as unfit for school. Only by challenging our existing beliefs can we be enabled to envisage different inclusive situations.



THINK



REFLECT



PLAN

This chapter has challenged social exclusionary and discriminatory attitudes and practices and promoted instead the idea of the celebration of diversity and the participation of all students in inclusive, child-centred schools and classrooms.

Did it make you ask any new questions about the way we teach? Here are some questions and activities you might like to make use of:

Impact of cultural diversity

- Think of two of your current or previous students: one who was very successful in schooling and another who was not so successful. Describe the impact on them of any of the four dimensions of diversity as described by our teachers and by Tomlinson.
- Is there perhaps a tendency across Europe for parents of high socio-economic status and often also of particular ethnic or cultural groups, when given the opportunity, to prefer to have their children attend selective schools which in one way or another exclude children regarded as undesirable? And is this leading to the development of pockets of communities with low-socio-economic status with low quality schools? How does this affect the learning and development of children in different areas?
- Read the article by Humphrey et al. (2006). Consider: (a) How far is the information reported similar to, or different from, your own experiences of trying to respond to diversity? and (b) How far do you think are the ideas promoted in the article realistic and practical?
- Think of the children coming from minority subcultures or minority ethnic groups in your class. Are these children experiencing any culture clashes in your class? How do teachers as representatives of the majority respond to cultural conflicts?
- Interview the headmaster about the policy concerning parents. Are there different ways of treating parents seen as full citizens of your own country versus people from abroad?

- Find out if your school is involved in any projects that focus on relevant issues like: peace-projects, safety projects (in all meanings), projects against bullying, etc.

Response to gender diversity

- Observe during circle time or discussion the differences between the participation of boys and girls. Think of: the way they tell something, the way they listen, the way they react.
- Interview some pupils (boys and girls) about mathematics. A Dutch researcher (Timmermans) says that girls like the way of realistic math while boys want to do it in the traditional way. Can you find proof for that?
- Think about one of your lessons in the recent past, including the texts you used, the examples you used in your presentation, and the content of exercises you gave the class: How far were the content, method of teaching, and products required from the students gender friendly for both boys and girls? And how far were they related to the out-of-school life of all your children, whether boys or girls and of whatever other characteristics?
- Imagine that all primary school teachers were male. What would change? Discuss with your colleagues the effects of the feminizing of the schools.

Response to students with disability

- Have you ever experienced teaching students who were challenged with particular barriers to learning due to some type of impairment? If yes, describe what adaptations you needed to make to help the student access the curriculum. If not, try to observe a student with impairment in a learning situation and consider the adaptations that are needed for him or her to learn. If this is not possible then observe a person with impairment in any life situation and try to imagine the types of barriers to learning he/she might experience in a classroom.
- Interview a person with some form of impairment about the barriers to learning he or she has experienced at school and in other learning situations.
- Interview a parent of a child with individual educational needs.

- Think of possible barriers to learning. List them from most to least challenging to the student and from most to least challenging for the inclusive teacher.
- When you think of people with impairments, what notion comes to your mind: individual abilities or disabilities? You may use the following readings for your reflection:

- In the UK, people with physical disability have developed a very striking deconstructive discourse against deficit labelling as is evident in the following Birmingham Council statement:

In the main it is not the impairment that is the problem, or the disabled person, rather it is society's failure to take into account our diverse needs. The Social Model shifts policy away from a medical, charity, care agenda into a rights led, equalities agenda. (See **Birmingham Local Council**).

- More recently, a group of persons with Asperger Syndrome have made the point that they are happy to be as they are: they feel abled in a different way rather than disabled and that the attempt to make them 'normal' is "like the old attempt to cure left-handedness" (See **Harmon, 2004**).
- Successful support for persons with impairment is often motivated by a belief in the 'abilities' of such persons. Thus, for instance, the EDEN Foundation, a major NGO set up in Malta in 1993 with the aim of supporting the inclusion of persons with disabilities in society, called its resource centre, "Ability Centre". It was led by the following aspiration:

EDEN will work to help each individual - from very early childhood to young adulthood - to realise a sense of pride and accomplishment in his/her strengths. ... so that they can hold jobs, live independently and enjoy recreational activities in their communities. (First Eden Foundation (Malta) brochure, 1993).

Need for schools to change

- In order for any organization to be able to change it needs to take stock of its prevailing culture – values, beliefs and

practices. The following questions are aimed at stimulating such thinking. The *Index for Inclusion* (Booth & Ainscow, 2002) can be a very useful tool for such a review:

- Starting from yourself, what are your values, beliefs and convictions in relation to students and in relation to learning and teaching?
- Are your ideas compatible with inclusive education? Why yes, or why not?
- What makes some children “failures”? Why are these children not engaged in the school curriculum? Is it perhaps the school, the curriculum and the teaching that are failing these children?
- What are the challenges that schools face in order to provide access to all children in the regular school, including those with severe impairments?
- Thinking about your last school experiences, does the school have an inclusive culture? Are all teachers and students welcomed? Are all parents welcomed? Are all students valued as worthwhile learners? Is there a sense of a supportive school community, or is there discrimination, bullying and devaluation of some members?
- Does the school have policy statements on providing equal opportunities for all?
- Is your school prepared for children with special needs? Is the staff prepared for all possible special needs?
- Is there a constant attempt to make all areas of the school accessible to all students? Is there a constant attempt by teachers to adapt their teaching so that lessons are accessible to and engage *each and every* student?

FURTHER READING

For general issues on principles and processes in the development of inclusive education:

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On disability issues:

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CHAPTER

3

BUILDING A CARING AND SUPPORTIVE LEARNING COMMUNITY

AIMS

The aim of this chapter is to highlight the importance of creating a caring and supportive learning community in the school and classroom through a holistic approach to education that also values the socialization aspects of schooling. The more specific objectives of this chapter are to provide the reader with an opportunity:

1. To focus on the importance of the holistic approach to education for healthy human development and learning.
2. To enable reflection on and enhancement of skills for developing caring and supportive relationships in the classroom, both between teacher and students as well as amongst the students themselves.
3. To focus on the importance of collaboration among staff in the classroom and the school, as well as between staff and parents and professionals outside the school, in order to provide the understanding and support for the diversity of children's strengths and needs.



What the teachers say ...

3. ON BUILDING A SUPPORTIVE GROUP

TEACHER FROM LITHUANIA: *You must love your pupils ...*

TEACHER FROM GERMANY: *I have always tried to teach them that we are one community. Central is that we help each other, there's no mocking, and the better students agree to help the others. I don't always have to remind them of that, they do it of their own accord and offer their help. We're a good community.*

TEACHER FROM MALTA: *I: (Teacher has described a difficult child) So, how do you reach this child?*

T: Well, by, up to a certain extent, giving him a bit more attention. By, for instance, making more eye contact with him during the lessons so you keep him with you. He sits at the front near me, actually because his mother asked me to keep him in front. By paying attention to certain things that parents like, for instance that they see that you are following him in certain things and that you don't just start on something and then forget about it, but that you are consistent ...

For instance, I follow what he is doing with the support teacher; and when his mother asked me for advice perhaps I helped her by telling her what she could do with him. Also because he is good in Maths, I make it a point to request answers from him quite frequently. And I can raise his morale with a mere comment, or even through a joke. Once I heard that a teacher either can make or break a child – so you can win a child through your comments. And I know through his mother that this child used to be sent out of class frequently in his previous school. Now he is different because he is getting this attention – and it's not just my work, because he was also supported by last year's teacher.

TEACHER FROM SWEDEN: *We have really good*

colleagues. I felt a great support from all of them, so that one can talk within the work team and with other work teams. We have questions about children to discuss in the work team once a month, where we discuss if there is anything special. The principal has given me great support and then we have a special needs teacher. Then we have a few persons that work with students with special needs within math and Swedish mostly when it comes to learning how to write, spelling and things like that. There are many people that listen if you have problems.

TEACHER FROM LITHUANIA: *What we do traditionally once a year is we invite the pupils' parents, then we are having our planned inclusive activity not just for the pupils but also for the parents. We include the parents into the lesson, or at least during the break period, and ask them to select some information. And then the pupils work very eagerly as they feel that their parents are watching them, and they always attend if their mothers are watching them, and they find it engaging; and it is interesting that their parents can also take part in the lesson.*



Most of our learning occurs in social interaction

ADOPTING A HOLISTIC ATTITUDE TO HUMAN DEVELOPMENT AND EDUCATION

This section focuses on the importance of the holistic approach to education for healthy human development and learning.

The different aspects of a holistic philosophy

A holistic approach always relates to the whole. The whole is more than a sum of its parts:

Holism (from *ολος holos*, a Greek word meaning *all, entire, total*) is the idea that all the properties of a given system (biological, chemical, social, economic, mental, linguistic, etc.) cannot be determined or explained by the sum of its component parts alone. Instead, the system as a whole determines in an important way how the parts behave. The general principle of holism was concisely summarized by Aristotle in the *Metaphysics*: “The whole is more than the sum of its parts”. The *term* holism was introduced by the South African statesman Jan Smuts in his 1926 book, *Holism and Evolution*. According to the Oxford English Dictionary, Smuts defined holism as “The tendency in nature to form wholes that are greater than the sum of the parts through creative evolution.” (<http://en.wikipedia.org/wiki/Holism>)

For instance, for a physiologist a kidney is a whole; for a biologist it is the tissue. ... From a broader view the human being is a whole... but human beings also become a whole as a small group (family, team, or village). We all live our lives in several dimensions at the same time - within ourselves - with other people - with surrounding nature - with the universe.

Behind this approach there is the integration of a given whole into a broader context: a concept of a healthy human being, a healthy family, a healthy village, a healthy country, a healthy environment and a healthy world (see Box 3.1). In the same way we can understand that there is also an unhealthy human being, an unhealthy family and so on.

With regards to our field, educating the whole child is seen as a contrast to the current narrow emphasis on schools to achieve academic standards:

Surely, we should demand more from our schools than to educate people to be proficient in reading and mathematics. Too many highly

Box 3.1

Environmental and peace education - COMENIUS

Holistic education has been linked also to the wider concerns with environmental and peace education. This handbook was developed through a programme based on the work of Jan Amos Comenius. He expounded his philosophical system, called pansophy, which is close to what we would call “*holism*” today. Comenius thought that he could put all the knowledge, philosophy, theology, geography and history, into one system of knowledge. The system in turn would be the basis for the re-education of mankind towards peace and brotherhood.

proficient people commit fraud, pursue paths to success marked by greed, and care little about how their actions affect the lives of others. (Noddings, 2005, p. 8)

Holistic education raises the big unending debates on the wider aims of education. Some people argue that schools are best organized to accomplish academic goals. They suggest that the other important areas of human development that we associate with the whole child, such as physical, social, emotional, moral, spiritual and aesthetic development, be left to other institutions. However, many societies over the years have seen the aims of education as being much wider. For instance, the recent Malta National Curriculum (1999) recommended that:

The fundamental values of love, family, respect, inclusion, social justice, solidarity, democracy, commitment and responsibility should constitute the foundations of the compulsory educational process. ...

One can gather, from the holistic policies underlying this document, that each area of human development is important. ...

The holistic spirit of this document should be reflected in the social relations of education which teachers develop, through their pedagogy, in the classroom. ...

An educational context based on holistic principles is essentially a democratic context in which a balance between individual and participatory learning is achieved.

Holistic principles should also lie at the heart of the student-school relationship. A school that follows these principles:

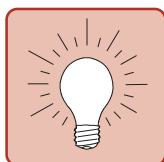
- considers each student as special;
- trusts students;
- generates a spirit of co-operation among members of the learning community;
- enables students to feel a sense of ownership of the school;
- considers knowledge as not being separate from life and from the means by which it is explored, attained and used;
- ensures that learning is based on concrete life experiences (and not only on abstract concepts) and on the modern means of acquiring information;
- provides students with a pleasant environment.

A holistic concept of personality

The expression “health” initially meant “whole”. A holistic approach essentially goes back to this base. Psychologists have also presented us with frameworks for a healthy personality.

The personality is often defined as the whole of the psychical life of the human being. Karl Rogers (1963) referred to the ‘fully functioning person’ in the following terms:

He is able to experience all of his feelings and is afraid of none of his feelings. He is his own sifter of evidence, but is open to evidence from all sources; he is completely engaged in the process of being and becoming himself, and thus discovers that he is soundly and realistically social; he lives completely in this moment, but learns that this is the soundest living for all time. He is a fully functioning organism, and because of the awareness of himself which flows freely in and through his experiences, he is a fully functioning person.



THINK: One way of approaching the whole rather than the separate parts is to think of something that symbolizes for us human development. What can you think of?

Here we present one image that you might find helpful, namely a flower:

The central concept is “wholeness”. That is, that health should be understood as a whole composed of parts which are interdependent. Anything that happens to one part will affect all of the others. Each must be understood in the context of the whole of health. Below is a description for each petal of the flower, which represents one aspect of health. Each aspect can be related to the lives of our students.

Physical health relates to the health of each of the body systems and how our bodies function. It is important for us to understand how our bodies are supposed to function. We can then identify when we are in good physical health and when something may be wrong.

Mental health relates to how we get information, knowing where to get information we need, and knowing how to use the information we receive. We must be able to gather knowledge from a variety of sources and be able to use the information to make decisions concerning our health.

Emotional health relates to understanding our feelings and the ability to express them. Knowing how we feel about ourselves and other people helps us express our feelings in ways others can understand. It is important to feel comfortable with the range of emotions.

Social health relates to how we see ourselves as individuals, as male or female, and how we interact with other people. We need to understand what is really important to us in relationships with friends, family, boyfriends/girlfriends and others with whom we interact. We should develop skills necessary to help us in all these relationships.

Personal health relates to how we see ourselves as people, how our egos develop (the ego is that part of ourselves that needs to develop a sense of self and of self-fulfilment), what we hope to achieve, and how we define success for ourselves. We each find self-fulfillment in unique ways, ways that are defined by what we value and what we



hope to accomplish for ourselves and our community. For example, some people find fulfilment in their hobbies or careers, others in their family, and others in work they do on behalf of others. We can define for ourselves endeavours that will bring us ego satisfaction.

Spiritual health, the stem and core of the flower, is vital to our overall health. It relates to the essence of our being. It is the core of our existence, holding us together, enabling us to understand and relate to the other five aspects of health. This aspect could be for many people very new and it could be surprising for them. Most people understand the term “spiritual” only in connection with religion or they even do not make a difference between “spirituality” and “spiritism”.

Spirituality for someone who follows a religion is easy to define. The person follows the rituals and the traditions of the religion. But people who are not religious can have an equal identity to a spiritual existence. Their spirituality can be in the form of seeking, or finding and keeping a relation with something that extends beyond a human being and into the cosmic universe.

Spirituality is connected to mental health, the feeling of well-being, and personal growth. Since each of us has his/her own values, beliefs, convictions, and a sense of life, the importance of these values runs very deep and enters into our spiritual world. A human being, who for some reason loses this sense of life, or spirit, which was so very important, can resign him or herself to everything and may not want to live (even if his/her physical health is in perfect shape).

It is important to emphasize that all of the petals of the flower of health penetrate each other. They influence each other – the condition of one aspect of health influences the state of another and as a result it influences one's health as a whole. This interconnection is very important from the standpoint of understanding reasons and consequences. Whenever any part of our health is affected, our health as a whole is affected too. If we concentrate only on the development of some parts of the flower of health, the rest of the flower will undoubtedly suffer.

When we meet people, we can often see at first sight, the parts of the flower of health they prefer. Some of them may prefer the physical aspect while others may prefer the mental or social aspect of health.

Box 3.2 and Box 3.3 offer an opportunity for us to reflect on which areas of our holistic health we value most and are most ready to include also in our teaching.

Box 3.2

My holistic health profile

Look at the questions below. Circle the number which relates most to you. Number 1 is poor health and number 10 is great health. Be honest in your marking: It is for your eyes only.

1. Think about your physical health. How do you rate your physical health?

1 2 3 4 5 6 7 8 9 10

Put a star next to the number where you would like to be in six months.
What do you have to do to get to the star?

2. Think about your mental health. How do you rate your mental health?

1 2 3 4 5 6 7 8 9 10

Put a star next to the number where you would like to be in six months.
What do you have to do to get to the star?

3. Think about your emotional health. How do you rate your emotional health?

1 2 3 4 5 6 7 8 9 10

Put a star next to the number where you would like to be in six months.
What do you have to do to get to the star?

4. Think about your social health. How do you rate your social health?

1 2 3 4 5 6 7 8 9 10

Put a star next to the number where you would like to be in six months.
What do you have to do to get to the star?

5. Think about your personal health. How do you rate your personal health?

1 2 3 4 5 6 7 8 9 10

Put a star next to the number where you would like to be in six months.
What do you have to do to get to the star?

6. Think about your spiritual health. How do you rate your spiritual health?

1 2 3 4 5 6 7 8 9 10

Put a star next to the number where you would like to be in six months.
What do you have to do to get to the star?

Are you satisfied with your flower? If so, why? If not, why not?

Box 3.3
My holistic health profile

Look at the flower. Whether you are teaching or preparing for the teaching profession, circle the number for each part of the flower to signify how prepared you think you are to include that aspect of health into your teaching.

Physical	1 2 3 4 5 6 7 8 9 10
Mental	1 2 3 4 5 6 7 8 9 10
Emotional	1 2 3 4 5 6 7 8 9 10
Social	1 2 3 4 5 6 7 8 9 10
Personal	1 2 3 4 5 6 7 8 9 10
Spiritual	1 2 3 4 5 6 7 8 9 10

- What is your result?
- What can you learn from circling these parts of health?
- What part are you most prepared to include?
- How can you include the other parts of the flower?

Discover the specific needs of the individual from a holistic perspective

This section focuses on the need to look at each student as a “whole” person. First we must look at the different perspectives people have when thinking of students with specific needs.

Seeing a specific need or seeing the whole person

We can look at a person with specific needs from two different perspectives.

1. First we can look at the person and judge him/her based on what we think about the specific need (for example: We may feel sorry for a person in a wheelchair so we don't look at the whole person, but only the person who is in the wheelchair.)

In this perspective the accent is on specific need.

2. Second, we can look at the whole person. The specific need is only part of the whole personality. (For example: We see a person in a wheelchair, but we see far more than the wheelchair. We see the person smiling and talking to us just like any other person would relate to us.)

In this perspective the accent is on personality as whole.

The following situations point to specific needs in each of the major areas of holistic health. Think of the possible ways in which these needs can be addressed within the curriculum if one adopts a holistic approach:

- A child who isn't getting the love at home. This child has specific needs that are not being met concerning his/her **emotional health**. What would you do?
- A child who has problems with **relationships toward others**; he/she may be bashful... What would you do?
- A child who has high intelligence and is bored during your lessons... – **he/she has specific needs in social health** ... What would you do?
- A child who has behavioral problems; he/she is aggressive **and has specific needs in personal health**... What would you do?
- A child who has no self worth and feels like life is not worth living. This is a dangerous situation and this child has **specific needs in spiritual health**... What would you do?

CREATING CARING AND SUPPORTIVE CLASSROOM RELATIONSHIPS

This section is aimed at the enhancement and evaluation of skills for developing caring and supportive relationships in the classroom, both between the teacher and students and amongst the students themselves.

The importance of caring classroom relationships

It is important for the teacher to examine the nature of his or her relationship with students. A supportive relationship with students is a key element of a caring and inclusive classroom climate.

Classrooms can be regarded as small communities



“As I entered the classroom with 17 pupils sitting around in a horseshoe configuration, working quietly with the teacher sitting close to them, the image of a large family huddled and connected together, came to my mind... the climate was warm, cordial, nurturing, connecting... pupils looking happy, safe and secure... teacher looking satisfied and happy with her children, a caring and nurturing ‘mother’... a social climate of mutual caring, respect and love.” (Cefai, 2005)

The teachers we interviewed (Bartolo et al., 2005) deliberately sought to connect to their students. They tried to build a personal individual relationship with their students, also using self-disclosure or sharing of interests to ‘get closer’, ‘to connect’, and involving the parents. They sought to understand the children’s ‘personalities’, what made them tick. These teachers reflected on the need to relate to each child, to be patient and persevering, and to be aware of how they themselves influenced the children. They tried to use the

relationship as a motivation for more effort, and were sensitive to personal difficulties, trying to meet the children's needs for individual attention and sometimes even for temporary needs, such as a difficult time at home. They worked at communicating in various ways with hard to reach children. They used empathy both in relation to the children and their parents. A Maltese teacher described how she sought to establish a personal relationship with a child from the beginning of school, while a German teacher talks about how she works towards establishing a supportive 'community':

TEACHER FROM MALTA: *In fact I feel, October is my hardest month, until I get to know the children, and get to know their personalities and what makes them tick so to say. Em ... sometimes, for example I have a boy who's quite lively, it's a word I like to use to describe my children. Em ... and he can be quite untidy and couldn't be bothered, but I realized that we share a passion on football, so we connected. Now, em ... since after Christmas, he's sitting right in front of me, so in between lessons or in the beginning he can relate, and feels that we've bonded over football. However, I've seen a marked improvement in his, in his eagerness, maybe it's around motivation, eagerness to please me and he's working harder. In fact, just yesterday I sent a note to his mother that I have seen an improvement in his academic work.*

TEACHER FROM GERMANY: *I have always tried to teach them that we are one community. Central is that we help each other, there's no mocking, and the better students agree to help the others. I don't always have to remind them of that, they do it of their own accord and offer their help. We're a good community.*

When asked what she would include in the training of teachers to respond to diversity, one teacher chose as a priority 'interpersonal skills':

TEACHER FROM MALTA: *In a course for teachers ... for diversity ... em ... I think I would include attitudes, social skills, interpersonal skills. I would give a lot of importance to these: how you, your attitude towards the children, I think that's very important. That's what I would start with: interpersonal skills.*



This teacher indeed said she was treated by the children as their mother and she felt like they were her children:



TEACHER FROM MALTA: *For instance, if I know this child is sensitive, I talk to him in a certain way, but if I know this boy will feel offended even if I say a joke, or that girl would be offended, then I will not say the joke. ... I think this is a natural reaction because they often call me 'Mummy'. ... I feel they are part of me, my children.*

Caring relationships in the classroom are an important medium for supporting students' learning and socio-emotional development. They are one of the most important protective factors for children, and make a significant contribution to their social, emotional and intellectual competence. The positive impact of caring classroom relationships has been found at all school levels, but appears to be particularly salient in the earlier school years. It is in a context with an ethic of care providing continuity and support for relationships of trust, that the basic psychological needs are satisfied and pupils can grow and thrive as healthy human beings (Noddings, 1992). Classroom contexts characterised by teacher warmth, respect and commitment, by peer interaction, collaboration and support, promote a sense of belonging and connectedness amongst the pupils. A sense of belonging is one of the fundamental psychological needs of children and once met, they experience various positive outcomes, including positive academic attitudes and engagement, motivation, and consequently academic achievement, as well as social and emotional competence.

Caring is not a substitute for learning, nor does it take time away from it. On the contrary it is at the core of teaching and learning. It establishes an effective culture for learning and success, with pupils provided with attention, adequate support, with help when in difficulty and opportunities to work collaboratively and construct knowledge together with peers and teacher. It does not only foster socio-emotional development but it also enhances intellectual ability and achievement as well (Solomon et al, 2000; Willms, 2003).

This is how a caring climate may look from the teacher's and students' perspective:

TEACHER FROM MALTA: *On my part I try to create an atmosphere like home (in my classroom), I give priority to respect towards teacher, but not to the distance between us...*

I joke with the kids as if they were my brothers and sisters or my cousins... we share aspects of our lives as well... our motto is that we as a group protect each other.

THE STUDENTS: *We like her because she is always joking with us... explains everything so that we can understand... when I make a mistake she does not shout at me... this is the best teacher we ever had... even if we are many pupils, teacher still takes care of us*

Box 3.4						
Caring Teachers Framework						
(adapted from Sergiovanni, 1994)						
Tick a box from 5 to 0 for each dimension (row)						
	5	4	3	2	1	0
<i>Affective</i> My relationships with pupils are quite warm and engaging						
<i>Affective neutrality</i> My relationships with pupils are like those of professional to a client						
<i>Collective Orientation</i> I encourage collaborative learning and support between pupils						
<i>Self-orientation</i> I encourage an individual orientation on the part of pupils						
<i>Particularism</i> I take into account the unique features of a disciplinary incident						
<i>Universalism</i> I deal with discipline incidents according to predetermined protocols						
<i>Ascription</i> I value pupils for being whoever they are, regardless of how well they do						
<i>Achievement</i> I value pupils for their cooperation and achievement						
<i>Diffuseness</i> I believe "You need to know pupils well to teach them well"						
<i>Specificity</i> I believe that I can enact my role well with little tailoring to individuals						
<i>Substantive</i> I demonstrate care for pupils as a core value						
<i>Instrumental</i> I demonstrate care for pupils in order to get better results						
<p>Interpretation: Scores towards the left column (5) suggest that you perceive your relationships as caring. Scores towards the right column (0) suggest a more rational, bureaucratic, performance-related way of construing classroom relationships. Where do you stand? Are scores significantly different on any of the six dimensions? Are there any areas which need to be developed?</p>						

Being called out by the teacher is a very strong indicator of belonging to the class



Given the above it is useful for teachers to reflect on the type of relationship they have with their students (see Box 3.4 below), and what impact this has on their pupils.

Building supportive relationships

Caring and supportive relationships can be built in a variety of ways. Consider the following five suggestions on teacher behaviours which help to build a caring relationship with one's students in one's teaching and classroom management.

1. **Get to know the students and let the students know you:** Make time to get to know the pupils individually, listen to their stories, let them tell you about their hobbies, interests, their likes and dislikes, their family, things they are good at, awards they received/would like to receive, their favourite birthday present. Let the pupils get to know you as a person: share your hobbies, favourite books, your likes.
2. **Listen actively to the pupils,** using body language effectively, allowing the pupil to finish what s/he has to say in his/her own time and in his/her own way, concentrating on the main issues from the pupil's point of view, summarising and reflecting back what the pupil is saying, and clarifying issues where necessary.

3. **Allow safe expression** of feelings, thoughts and opinions, establishing a classroom rule that everybody's opinions are valid. (You may use Circle Time to carry out this suggestion as shown in Box 3.5)
4. **Provide opportunities for success and recognition**, organising activities so that pupils know they can succeed in the task, rewarding effort and improvement, building on any strengths students have, celebrating students' accomplishments, giving them responsibilities, and providing individual support as necessary (see Box 3.6)
5. **Promote a teaching approach to discipline** avoiding humiliation and public repudiation, relying on nonverbal behaviour for managing behaviour while using classroom talk for educational purposes; and letting students participate in negotiating and resolving conflict, including conflict with yourself (see Box 3.7 for a practical example of the teaching approach to discipline).

Box 3.5 Circle Time

Arrange class in a circle. Introduce theme for discussion which may have been raised either by yourself (concern about behaviour, bullying, how to work together) by students (such as through question box) or the result of a classroom incident. Each student is invited to speak without interruption (sometimes with the help of an object that is passed around; or else round robin) but s/he may 'pass' if s/he does not want to contribute. Agreed ground rules are observed throughout the session, including confidentiality, one person speaks at a time, everybody's suggestions are welcomed, listening to others without interruption, and avoiding sarcastic and negative put downs. Do various rounds including a discussion of the nature of the problem and recommendations for actions to be taken. At the end as facilitator summarise the contents of the session and the suggestions which have been agreed upon by the group, including how these are to be implemented. Place great value on ideas coming from the students. Conclude by celebrating the success of the session.

Sessions usually last about 30 minutes

More information on Circle Time may be found on: <http://www.teachernet.gov.uk/teachingandlearning/library/circletime/>

Box 3.6

Strategies to celebrate student accomplishments

(adapted from Levine, 2003, Sapon-Chevin, 1990)

1. The class sits in a semicircle with the student or students being honoured seated in a special chair as the focus of the group. They are honoured by being listened to as they share something of importance to them. This could be something they have written or otherwise created, or some exciting and joyful news. Students can also tell the class about a challenge they currently are facing in their lives, and the class can offer caring suggestions for consideration.
2. Post a “Good Deed Tree” in the classroom and instruct students that any time they see anyone do or say something nice to another student they are to write their report on a small slip of paper and post it on the tree. On Fridays read the notes on the tree, providing positive feedback *both* to the student who had done something nice and to the student who had noticed.
3. When a student accomplishes something, anything—an improved spelling paper, a difficult math assignment, making friends with a former enemy, learning to ride a bicycle—that student should be encouraged to share this with the class, promoting group applause, cheers, or other expressions of support.

Box 3.7

A teaching approach to discipline

(Dasho et al., 2001)

A teacher describes his shift to a more positive classroom management style: *“My approach to discipline has really changed. Now if students do something that’s a problem, I’ll say to them, “I think we need to talk. Can I have a little bit of your time, maybe at recess, to talk?” I’ll tell them that I think they’re not themselves that day, and ask them whether something’s wrong. You find out an awful lot that way. Maybe their bird died last night. They really appreciate the time devoted to their needs.”*

‘I’m worried about you. Can we talk after school?’ conveys a very different message from ‘That’s one too many. Stay after school’. When teachers take the time to ask the child why a problem is occurring, this often yields unexpected rewards.

“The biggest difference in my discipline is that now I think: Why is this child acting up? What might be going on that would make the child act in this way?” comments one teacher.

Just listening to children can help them, by meeting their needs for attention, self-expression, and human connection. A child’s problems do not excuse bad behaviour, but understanding why children misbehave can help adults maintain their threats to the most trying children. A principal reflects on the change in her discipline to a teaching approach:

“I’m looking for solutions rather than just punishments. I’m asking students questions like ‘What have you learned from this?’ and ‘How can you solve this problem?’ That’s a big change for me. Instead of looking for punishment that fits the crime, I’m looking to help the child grow.”

EXAMINING STUDENT RELATIONSHIPS IN THE CLASSROOM

This section focuses on the nature of student relationships in the classroom and makes suggestions on how to identify strengths and areas for improvement in seeking to promote more caring, supportive and harmonious interactions among students.

How harmonious are student relationships in your classroom?

Student relationships are a major feature of students' classroom experience and they make a distinct contribution to pupils' engagement, motivation and achievement (Wentzel, 1998). Teachers have to be sensitive and critical to intra- and inter-individual dynamics in the school that can create inclusion or exclusion. Teachers can achieve this through participant observation. Examples of moments of interest are breaks in the schoolyard, lunch time, and situations where the students divide into small groups, and sport activities. A complementary way of examining the nature of peer relations in the classroom is through the use of psychometric assessment.

A sociometric test is an easy to use, useful tool in helping you to promote and maintain classroom harmony and good relationships and in identifying peer relationship difficulties (see Box 3.8). It can answer such questions as: Are there students who are isolated, neglected or rejected? What changes can you make to classroom arrangement and seating and to present roles and responsibilities, to ensure more harmonious peer relationships and to support those who may be experiencing difficulties in relating with their peers? Sociometric testing is often used in research on bullying (e.g. Cerezo & Ato, 2005).

But one should be very careful in the use of this as in other tests for two reasons. First of all, the results of this test can lead to labelling individual children inappropriately as rejected or popular. Secondly, the experience of the individual child may differ from the test result and in terms of diversity one should respect students' choices of types of participation. Some children may be coded as excluded from group work but in fact prefer to work on their own. There may be other children who may be coded as popular but who experience loneliness.

Box 3.8 Sociometric testing

A sociometric test enables you to find out the networks of relationships among your students by asking them to indicate choices of companions or rejections of possible ones for an activity. This test may be used as a tool to help rejected students become more integrated in the classroom, to organise class or arrange small groups so that they can work more harmoniously, to decide on best seating arrangements for formal and informal work, as well as to keep students' views when delegating responsibilities. Use this test when students know each other quite well.

The test is carried out individually and confidentially. Each student is given a sheet with a few questions requiring choice or rejection of 3 potential companions in order of preference (you may use also pictures and photos instead of names in classes where pupils may have difficulty writing names), such as:

'Which pupil would you like to work with in the classroom?'

1. _____
2. _____
3. _____

The questions you ask are determined by the information you need to collect. Samples of questions may include:

'Who is your best friend?'

'Which pupil would you like to play with during the break?'

'Which pupil would you avoid working with if you could?'

If this is your first time doing a sociometric test, it is better to ask one or two questions and to restrict pupil choices to 3 preferences. Tell students that there are no right or wrong answers but that true and honest answers are important. Reassure them that their responses will be kept in confidence. Include absent pupils as well. Once you collect all responses work out a matrix of all the students' preferences and then draw a sociogram which will give a graphic display of the relationships in the classroom, including the stars of the class, the cliques and pairs, and the isolated, neglected and rejected peers (see website for more details on how to do the matrix and the sociogram: **Sherman (2002)** provides details on administering, scoring and interpreting the responses of the sociometric test. This provides step by step guidelines on how to carry out the test, how to construct the sociomatrix and sociogram, and how to interpret the findings. Another way to score and interpret the test is to use the classroom sociometric software programme developed by **Walsh (2004)**).

The changes which will need to be carried out in the classroom on the basis of the test results are discussed within the next learning outcome.

Promoting harmonious and caring relationships among students

If, through observation or a sociometric test, the teacher discovers isolated or rejected students, then he or she can try to build more harmonious and caring relationships among them.

With the information obtained from a sociometric test, one can identify cliques, subgroups and class divisions, discover any segregation and intolerance on the basis of race, gender, ability or other differences, and get a sense of the overall social structure of the classroom. One way in which one can promote more positive and harmonious interactions in the classroom is to structure the way students work together, such as arranging the seating in the class, planning the organisation of work groups, and identifying students who may require assistance to be included actively as a member of the class. The suggestions by Balson (1988) should serve as useful guidelines when considering any changes in the classroom on the basis of sociometric evaluation (see Box 3.9).



Classroom seating arrangements have an impact on student–teacher and student–student interaction

Box 3.9

Guidelines on classroom restructuring and grouping according to sociometric results (from Balson, 1988)

Start with children who receive the least nominations and work up to those with the most. In this way the teacher has as a focus on the students who are more in need of assistance in the development and maintenance of positive social interactions within the class.

Attempt to satisfy mutual choices first and unreciprocated choices next. Mutual choices indicate a greater likelihood of successful interaction, and are useful to consider, so long as the choices are not within a closed group, as discussed below.

Try to make sure that neglected children get their first choice. Neglected children are those who are not noticed by their peers. To give them the greatest chance of acceptance it is useful to place them with someone with whom they have indicated some affinity. This is of particular benefit if the person they have nominated is a popular person within the class, as this will help them be noticed and hopefully accepted by others within the class.

Do not include neglected children into a closed group or mutual pair. Closed groups and mutual pairs where the students tend to have nominated each other, often to the exclusion of others, are less likely to notice and accept neglected students, as they are focused on their own friendships and interactions.

Make sure children who reject each other are kept apart. Students who reject another student clearly have difficulty with the notion of working with that particular student, and there is little to be gained by trying to get these students to work together. It is better to have the students work constructively with others within the class, and to address any specific issues that might need intervention before trying to get the students to interact together more closely.

Make sure every child is with at least one of his/her choices. Having explained to students that the process is about students working together positively, it is important to try to organise that each student is with at least one of his/her choices.

Closed groups should be broadened by intermixing. Closed groups are often made up of students who are not interested, willing or able to interact with others in the class. Whilst it is nice to meet their wishes in working together, it can often be at the detriment of their relationships with others within the class, such as operating as a negative influence on the group while remaining detached from what is happening in the classroom. They may benefit from some outside influence to help them become more integrated in the group.



Games and other informal activities enable positive group interaction

Sociometric results can be very useful in selecting and arranging cooperative and supportive groups in the classroom. Box 3.10 provides a model on how to organise cooperative groups on the basis of a sociometric test.

Box 3.10

Organising cooperative groups

(from Walsh, 2004)

The following are step by step directions for organising cooperative groups on the basis of sociometric results.

- 1) Decide how many groups you will have in your classroom.
- 2) On a sheet of paper, draw as many large squares as you have groups.
- 3) Take all of your rejected and neglected children and try to spread them out by writing in as few as possible in each square.
- 4) Take all of your popular children, and write in as few as possible in each square. Do this trying to respect the choices of the rejected and neglected children. If you used a negative question, try to respect these nominations as well.
- 5) Next, place the rest of the children in each group, trying to optimize the number of mutual choices per group.

Do this while taking achievement into consideration so that each group has the same proportion of high, average, and low achievers. After placing children in sociometric groups, direct each group to help one another during your first classroom assignment with such things as getting one another started, spelling, reading a specific word, or explaining a concept. It is more effective to direct students to help one another rather than telling them directly what to do. This will help to promote a sense of trust amongst them.

BUILDING SUPPORT NETWORKS FOR RESPONSIVE TEACHING

Supportive environments require collaboration beyond that between the teacher and students and among students. It needs a collaborative system among staff inside the classroom and school, between school staff and professionals outside the school, and between staff and parents and the community.

Building collaboration with other staff

The aim of this section is to consider how working with an additional adult/facilitator/ member of support staff/Teaching Assistant (TA)* in the classroom can support the learning of all children in ways that facilitate each one's participation and independence.

Collaboration essential for an inclusive climate

While pointing out in the first place the importance of the teacher's relationship to individual students, the teachers we interviewed about responding to diversity pointed out also the challenge of having the support of colleagues and of the parents.

In Malta, as in Italy and other places where most students with special needs are in regular classrooms, there is a system of individualised support for these children by a learning support assistant (called a 'facilitator' in Malta, and a TA in the UK) which in fact also means that there are two adults in the classroom.

It should be pointed that when this system was introduced in Malta in 1994, there was great opposition by teachers who had been used to managing the class on their own: they regarded the presence of another adult in the class as a threat to their freedom of managing the class. However, now most teachers have realised the benefits of having an extra mind and pair of hands in the class which can enable them to reach out more effectively to all students. However, they still see the importance of building a good relationship with the TA:

* Teaching Assistant (TA) is used as the standard terminology in resources from the UK. This can be replaced with the terminology 'support staff' or additional adults. It refers to those adults in the classroom without a teaching qualification that is recognised within their job description/pay. In Malta they are called facilitators.

TEACHER FROM MALTA: *T: Having a facilitator always helps, because she usually doesn't help just the child she's assigned to because otherwise that makes him very dependent on her, and very possessive sometimes. So, that means that you've got an extra adult in the room to help you with those four, five em ... children who need the extra help. Because in ten years of teaching, in every group, in every classroom, there are always those four or five who need that little bit of individual help.*

I: And, and having the facilitator is one way of reaching them ...

T: Yes, because you're doubling the adult time you know, I mean, the attention. For example while the child with special needs is on task, she can check on two children, while I'm checking on another two children, so that means the four weak children are being seen to, simultaneously, you know, so ... as long as there's the understanding between the teacher and the facilitator that yes this can be done, you know. But I've never had trouble with that.

TEACHER FROM MALTA: *T: I think, for it to be a success, the relationship between the teacher and the facilitator has to be at the top. I've been always very lucky with the facilitators whom I've had in my class. Always had a good relationship, and I always, make them feel at least, that it's not my class and they're just helping out, it's our class and sometimes I can take over with the child with special needs and they need to take over with the class. Em ... and the children warm up to that. Em ... I also make it a point, I don't know if it happens in other classes that if there is a child with special needs, that I am very involved in his I.E.P., his Individual Programme, is not a question of his or her responsibility, I have nothing to do with him, you know, and I do make sure, that even contact with the parents you know. Em ... I've seen other teachers, 'Well,' they say, 'Ah, you know, you speak to the facilitator. You don't need to speak to me.' I am strongly against that, you know. Both the child and the facilitator are part of my class, are part of, in the beginning of the year, we call it our community.*



Indicators of effective staff collaboration in the classroom

Teachers still differ in their regard for having a TA. Some simply like working on their own and ask the TA to just take care of the child with special needs and leave the rest to her, even placing that child and TA in a far corner of the class. Others like the one cited above actually take the TA as a colleague. You may not have a TA in your class. Box 3.11 offers the possibility for reflection on ways in which a teacher may work with other staff in the classroom.

Balshaw (2004) gives some suggestions on how to improve working relationships with TAs. She describes various ways in which teachers

Box 3.11

Indicators of level of teamwork with a TA in the classroom

(DfEE, 2000)

Teachers' management strategies provide clear guidance as to how TAs should work in their classrooms

Are you familiar with the job descriptions of TAs?

- Do your teaching approaches and planning take account of the presence of TAs?
- Do the contributions of TAs encourage pupil independence in classrooms?
- Do you manage your teaching so that all children receive direct teacher attention, when they are working individually or small groups, as well as input from TAs?

Teachers and TAs work collaboratively to support the learning and participation of all children

- Does the TA/support staff understand the purpose of lesson activities?
- Does the TA/support staff share in planning?
- Is the TA involved in flexible decision making about plans during lessons?
- Is the TA /support staff and teachers encouraged to offer one another constructive feedback?

The expertise, skills and knowledge of TAs is used flexibly to support the learning of pupils

- Is the particular curriculum knowledge of the TA/support staff as well as that about particular children recognised and used?
- Are the TA/support staff previous experiences and skills used to support curriculum access and flexible approaches?



Staff collaboration in the classroom enables reaching more students effectively

can work effectively with TAs, in the classroom, including the importance of teachers having inclusive attitudes to and using inclusive language with TAs and crucially with children seen as having additional/special needs in an inclusive classroom. She suggests that TAs can help in increasing pupil participation, pupil independence and in raising standards, as well as provide feedback to the teacher on classroom practices.

Box 3.12 offers a chart for reflection on specific strategies for enhancing the teacher's use of teamwork with the TA for reaching and including all students.

BUILDING COLLABORATION WITH PARENTS

This section highlights the importance of creating relationships with the children's parents or guardians as a way of recognizing the wider diversity of student strengths and needs.

Parents' contribution to understanding children and promoting learning

We have already talked about the baggage children bring with them to school in terms of their cultural background. Such culture includes the diversity of home and parent characteristics. Parental

Box 3.12

Classroom Strategies Chart: Inclusive practices and responsive teaching
(UNESCO, 1993)

Read the examples on the outline chart.

- Mark with a tick (✓) any strategies that you personally use in your classroom practice.
- Add any further examples that *you* find effective in helping to make your classroom more inclusive in the blank boxes.
- Put a star in the three most important to you in your own classroom practice.

Involving children in setting their own targets and in assessing their learning		Personalising curriculum tasks, considering opportunities for independent learning
Making sure the TA understands the purpose and aims of the lesson	Considering, when planning, participation for <u>all</u> children and TAs	Teacher and TA consistently praising children's efforts and achievements
	Encouraging creativity in curriculum approaches, including using TA/ support staff skills, enthusiasm and curriculum knowledge (to take a lead in the group/ class if appropriate)	Flexible groupings with TAs and teachers that take account of different learning styles
Providing opportunities to support learning from and with a range of peers		Involving TA in assessing and recording progress

interest in education, independent of social class, has been identified as one of the factors most strongly related to educational attainment and adult outcomes. There is wide evidence that the involvement of parents in their children's education improves their success in learning (Sparkes & Glennerster, 2002). Indeed, when a child is failing at school, teachers often refer to the lack of support for the child from home. The teachers we interviewed from all seven countries either explained how they achieved collaboration with the parents to effectively reach some children or how they could not reach a child because they could not get the parents' cooperation. When asked what kind of training teachers needed to reach out to all children, one teacher first mentioned the importance of having a positive 'attitude' towards all children, and then referred to skills not for teaching but for relating to the parents:

TEACHER FROM MALTA: *(Teachers need to be trained in) certain skills on dealing with parents. Parents have such a lot of em ... information to give us about their child, and em ... skills on how to communicate with parents nowadays, when they don't have that much respect for the teachers they had twenty or thirty years ago. Well, it's not a question of saying, 'Ah, that mother doesn't cooperate, you know, that mother never comes to school,' and that's it, you know. Em ... you have to know, I don't know, I'm like, maybe a way of getting through to her. You know, I mean even if it's simple notes that you send home. For example, after a parents' day, I have sent a note, thanking them for coming, for making the effort to come; the, the parents just feel, you know, ah you know, someone appreciated me taking a day off from work, to attend a parents' conference. ...*

Parental involvement in their children's education can result in:

- More positive parental attitudes towards teachers and school;
- More positive student attitudes and behaviour;
- High school attendance and less disruptive behaviour;
- Higher parental expectations of children;
- Improved communication between parents and children;
- Improved study habits among children;
- Improved student performance;
- Improved teacher morale;
- Improved school climate. (Hornby, 2000)



Parents need to feel welcomed

The support of the parents is particularly necessary for reaching students with individual educational needs. Very high proportions of parents are reported to be interested in their children's education (Sparkes & Glennerster, 2002). However, teachers sometimes complain that the parents they need to have most collaboration from stay away from school. Though some parents may indeed lack the motivation or skills for supporting their children's education, there is no doubt that teachers can improve the level of parental involvement by positively seeking their participation.

This is what a parent of a child with Down Syndrome, who is also a teacher, told a group of heads of school about 'What can be done' to build a partnership with parents:

Listen to the parents wholeheartedly and understand the unspoken messages, the hurts, the frustrations and sometimes even the despair that they are unable to communicate in words but that can be so evident in their manners and their posture.

She suggested these 'communication strategies':

- **Listen** with your mind and your soul
- **Understand** their difficulties
- **Empathize** with their situation

And these 'action strategies'

- **Recognize** their expertise
- **Acknowledge** their rights
- **Treat** them calmly and respectfully
- **Collaborate** to reach the best possible solutions to challenges
- **Work** through the bureaucratic system together

Improving communication with parents

Partnership with parents in education requires effective communication. Such effectiveness in turn requires first of all good interpersonal skills: particularly reflective and active listening skills and counselling skills, as well as assertiveness and problem solving skills (Hornby, 2000). One big challenge for teachers is to always maintain and convey an unconditional positive regard towards each child, that is that you always believe in the child's ability to improve whatever the circumstances, and avoid putting down the child while

Box 3.13

Making positive word choices

(Smith et al., 2004, p.78)

Avoid	Use instead
Must	Needs to
Lazy	Is motivated towards less helpful interests
Culturally deprived	Culturally different, diverse
Troublemaker	Disturbs class
Uncooperative	Needs to work more with others
Below average	Works at his/her own level
Truant	Absent without permission
Impertinent	Disrespectful
Steals	Takes things without permission
Dirty	Has poor grooming habits
Disinterested	Complacent, not challenged
Stubborn	Has a mind of his or her own
Wastes time	Could make better use of time
Sloppy	Could be neater
Mean	Has difficulty getting along with others
Time and time again	Usually, repeatedly
Poor grade or work	Works below his/her usual standard

rejecting undesirable behaviours. This is reflected in the language we use such as is shown in Box 3.13.

Moreover, teachers need to make use of relevant strategies for communicating with parents. **Hornby (2000)** suggests a variety of strategies should be made available, including:

- Informal contacts such as open days, school productions and outings for 'breaking the ice';
- Several forms of written communication such as handbooks, newsletters, progress reports and home-school diaries for sustaining communication needs;
- The use of other forms of communication for resolving issues that arise, such as telephone contacts, and the organization of parent-teacher meetings;
- Home visits for building relationships with parents where these are possible.

BUILDING SCHOOL-COMMUNITY RELATIONSHIPS

This section describes the need for involvement of the local community in the school to ensure the celebration of all student diversity.

Diversity of students extends to the diversity of community groups

Recognition and acceptance of diversity needs to be widened to the community which the school is serving. It is important that all groups in the community feel valued at the local school in a variety of ways. For instance, if the school staff includes respected members of the different types of groups in the community the school is serving, there will be a greater possibility of the valuing of such members.

For instance, one of the teachers we interviewed described a situation where her school experienced a sudden “large influx with these (refugee) children” and one of the children was being ostracized



TEACHER FROM MALTA: *At first we faced a lot of problems on the part of the parents. They did not want their children to sit near the refugees: ‘I don’t want him near the black child, he’s dirty, he’ll infect my son ...’ We had a serious problem. They even addressed us as teachers: ‘You should not accept the refugees in your classroom... What right do they have to come with us?’ So we had to deal also with the parents, to educate the parents until they accepted these children in our school and allowed them to play and interact with the other children.*

The solution the teacher described was that of the development of a whole-school policy and action to promote democratic values by bringing together the communities inside the school:

In the first staff meeting the Headmistress addressed this new situation (of refugee children) we had in our school. We embarked on a policy right away because we try as much as possible that we as teachers work hand in hand. We work together and support each other. We embarked on the policy of democratic education within our schools. And we put forward the aims of this policy, of how we are going to help the children. Thanks to a focus group we organized activities. For example, we set up a section where we also found parent support... we needed to educate the parents about the problem

..... when they showed that resentment. For example we held an activity, we called it "Traditional games". We dressed all the children and even the parents had to dress up. We introduced the traditional games that Maltese children play like the Xixu, "The bee goes round and round," the Passju... And we invited the parents of our children and of the refugees to play. We played our traditional games and they played theirs and then we rotated roles. We taught them how to play our games and they taught us theirs. We worked along these lines.

Having a whole school process helps the teacher on an individual basis.

Thus, the new diversity in the community was celebrated within the school and helped towards the celebration of the diversity of the students.

A good measure of the level of inclusion or involvement of *all* local communities in a school is provided by the list of questions in **Booth and Ainscow (2002)** in relation to the Indicator '*All local communities are involved in the school*' (see Box 3.14). The questions raise issues of mutual involvement and use of facilities of the school by the community and of community human and material resources by the school.

Box 3.14

Indicator: *All local communities are involved in the school*

(Booth and Ainscow, 2002, p.48)

- I. Does the school involve local communities, such as elderly people and the variety of ethnic groups, in activities in the school?
 - II. Is the school involved in activities in the local communities?
 - III. Do members of local communities share facilities with staff and students such as the library, hall and the canteen?
 - IV. Do communities participate equally in the school, irrespective of their class, religious or ethnic background?
 - V. Are all sections of local communities seen as a resource to the school?
 - VI. Do staff and governors seek the views of local community members about the school?
 - VII. Do the views of members of local communities affect school policies?
 - VIII. Is there a positive view of the school within the local communities?
 - IX. Does the school encourage applications for work in the school from the local communities?
- Further questions?



THINK



REFLECT



PLAN

This chapter has highlighted the importance of creating a caring and supportive learning community in the school and classroom through a holistic approach to education that also values the socialization aspects of schooling.

Did it make you ask any new questions about the way we teach? Here are some questions and activities you might like to make use of:

A holistic approach

- Read the article ‘What does it mean to educate the whole child?’ (Noddings, 2005) and reflect on the implications of a holistic approach to education.
- Is the concern with holistic education reflected in your country’s education policies? Is it reflected in your school’s policies?
- Express, in whatever way - by words, symbols, pictures – how you imagine the individual parts of the flower: physical, mental, emotional, social, personal, spiritual health.
 - What aspects of the flower do you include in your everyday life?
 - What parts of the flower are more important to you than others?
 - What parts of the flower do you think you need to further develop?
 - What parts of the flower of health do you think you sometimes neglect?
 - Reflect on your score on the different areas of health in Box 3.2, and on how far you are prepared to include the various health aspects in your teaching (Box 3.3).
- Considering the ‘flower’ exercise, which areas of development were most highlighted by yourself and colleagues? Were there any areas of development that were left out?
- Describe a typical example of school practice for every element of the holistic flower.

In the Netherlands there is a project that is aimed at alternative thinking strategies. It is about the social-emotional development of children. There are five parts:

- Self control.
- Learn to recognize and understand feelings.
- Problem solving.
- Create positive self esteem
- Learn to cope with other children.
 - Think how compliments fit in this program. What is the positive effect of giving a compliment?
- What barriers have you experienced or do you foresee in trying to provide a holistic education for your students? How can you address these issues in your school.

The first step in understanding how to bring about change is for you to be aware of where you are right now in relation to students with specific needs:

- Describe your feelings when you are in contact with somebody who has a specific need.
- How would you describe someone who has a specific need? Choose one student and describe him/her. Think about the flower of health and which aspects you emphasized in your description.
- Did you choose someone with a physical disability? Most of us do think of someone with a specific need as somebody who has a visible impairment (a person on a wheelchair, a person with vision impairment, a person with Down syndrome), but specific needs appear in other aspects of health too.

Teacher-student relationships

- Reflect on the type of relationship you usually have with your students. Look at the exercise in **Box 3.4**. Read the statements in the left and right columns of the table, and tick a box in each row to represent the way you usually relate to your students along each dimension.
- Critically examine the five suggestions on teacher behaviours (see Box 3.5-3.7) which help to build a caring relationship with your students in your teaching and classroom management. Consider what you would need to do to implement one of them, possibly using the box below:

Establishing a caring relationship with my students

I will attempt to put into practice during my teaching practice the following behaviours:

In my teaching I will seek to:

1.
2.
3.

In my classroom management I will seek to:

1.
2.
3.

Student-student relationships

- Plan, implement and interpret a sociometric test with your class, showing the profile of relationships in your classroom, including a sociomatrix and sociogram, and what needs to be strengthened or improved.
- Discuss controversial issues in the use of sociometric testing. In what other ways would you analyse relationships in the classroom?
- Plan, implement and evaluate a session which includes the organisation of cooperative work groups as suggested in Box 3.9 above. (This activity may be linked to one of the tasks on cooperative group work suggested in Chapter 5)

Building collaborative networks

- Consider the indicators in Box 3.11, drawn from guidance to schools and teachers on the work of support staff in schools in the UK, and then write some notes in response to the key

questions below each one. Do this in relation to your own classroom context, and the ways in which you work, or think how you would work, with support staff.

- You can get some ideas on how to improve team working with a TA by reading the brief article by **Balshaw (2004)**. She describes various ways in which teachers can work effectively with TAs in the classroom, including the importance of having inclusive attitudes and language used by teachers in working with TAs and crucially with children seen as having additional/special needs in an inclusive classroom. She suggests that TAs can help in increasing pupil participation, pupil independence and in raising standards, as well as provide feedback to the teacher on classroom practices.
 - How are Balshaw's suggestions relevant to your own classroom practice? What about the language you use, the assumptions you make, the attitudes that you portray, the model you offer to both TA/support staff and children in your classroom?
 - Use the Chart in Box 3.12 to develop specific strategies for enhancing the use of teamwork with the TA for reaching and including all students.
 - Share with colleagues how you are managing your relationship with your TA to reach more students. Record in your journal any new ideas you can implement in your classroom.
- The way we work with parents is influenced by our perspective on their role. In which of the following roles do you see the parents of children in your class, and what impact is this having on your collaboration with them?
 - As potentially interfering with school and creating unnecessary conflict?
 - As the receivers of expert advice from school staff?
 - As potential substitutes for school staff?
 - As consumers of educational services, deferring to them full control over choices for their children?
 - As providers of expertise and resources?
 - As potential partners?
 - What strategies do you usually use to communicate with parents? Why? What other possible strategies might you

use, and how is it best to use them to improve parental engagement? (You can make use of **Hornby, 2000**, pp. 32-49)

- What different types of groups make up the school community where you are teaching? Are there different ethnic groups? Different religious groups? Different socio-economic groups? ...
- How far are the different groups within your community involved in the running of the school?
 - Interview a school official about the relations with the surrounding of the school.
 - Are there projects with for instance shops, farmers, factories, social institutions like retirement homes, etc. (In responding to this, you may use the questions listed in the Indicator on school communities: Booth & Ainscow, 2002, p.48 – see Box 3.13 above).

FURTHER READING

On holistic education:

Noddings, N. (2005). What does it mean to educate the whole child? *Educational Leadership*, 63 (1), pp.8-13.

Weare, K. (2000). *Promoting mental, emotional + social health: A whole school approach*. London: Routledge.

On sociometric assessment:

Sherman, L. (2002). *Sociometry in the classroom*. (<http://www.users.muohio.edu/shermalw/sociometryfiles>)

On collaboration between staff:

Balshaw, M. (2004). Working in inclusive ways with teaching assistants: some ideas for teachers to consider. *manchester: DTMp*.

Balshaw, M., & Farrell, P. (2002). *Teaching Assistants: Practical strategies for effective classroom support*. London: D. Fulton.

On partnership with parents:

Horbny, G. (2000). *Improving parental involvement*. London: Continuum.

CHAPTER

4

THE CONSTRUCTIVE LEARNING PROCESS OF DIVERSE LEARNERS

AIMS

The broad aim of this chapter is to highlight the constructivist principle of the essential need for active engagement of the learner, and therefore of the importance for the teacher to get to know the students' various learning characteristics, strengths and needs and readiness levels in order to enable their active and successful participation in the curriculum. The more specific aims of the chapter are to provide opportunities:

1. To consider the learner's process in the construction of knowledge and to explore ways in which the learning of all pupils can be facilitated through a constructivist approach to teaching.
2. To study one of the windows into the learning process through the concept of 'multiple intelligences' and its implications for responsive teaching.
3. To consider the concept of cognitive and learning styles as another window, complementary to that of multiple intelligences, into the student's learning process.
4. To consider one particular view of the learner, learning patterns and the learning process, through the approach of the *Let Me Learn* Process.
5. To consider the affective underpinning of the student's engagement with learning through a focus on the recently studied phenomenon of emotional intelligence (EI).
6. To focus on the phenomenon of the psychology of attribution and demonstrate the potential positive or negative impact of students' attributional style on their general well-being, effort and achievement.



What the teachers say ...

4. ON KNOWING THE STUDENTS

TEACHER FROM GERMANY: *I often ask myself, 'If I were a child, what would I want my teacher to be like?' We must see things not only from our perspective; that might be the wrong approach.*

TEACHER FROM SWEDEN: *I think one should be very receptive and look at the specific needs of each individual. You should also take careful notes and do follow-ups and take notes for the pupil's portfolio. Partly so they feel that they are participating, and so that they feel they know what is happening, that is really important. So that they feel that they are unique individuals, and not counted as a mass.*

TEACHER FROM MALTA: *I have learnt to see the child on his own. I mean that is very important, and I think with differentiated teaching that is one very important aspect, that you don't see the child as a number of a larger group but you try to see the child in his personal achievement, his personal ... So I really try to get to know the children as much as possible so that I can target ... even when I'm planning I have the boys in front of me, all the time, their names ... I can say yes, Jack can do this, but Tom can't do it.*

The first thing that's most important is getting to know their names. Once a child is called by name, then he belongs, and that's really important.

Then I have other exercises whereby I can em ... start spotting out ... character traits;... social traits, how the children interact socially;... interests, what the, well I have boys, so most of the time it's football, at least getting to know the teams, and I try to watch football over the weekend so on Monday morning I'm alert, and I know what happened over the weekend. Em ... what's, on TV, for example programs the children watch, or else I can't relate to their world. It's little things like this but which at the end of the day count a lot, because you can communicate with the children, and once you can communicate and you know the interests of

the children then I can do my lesson planning on the same lines....

Once a week I have a full hour with the boys. It's called an activity hour, so this is the time where I try to sort of have a really relaxed atmosphere in the class, and where I can talk one to one with the children. So sometimes we're doing an activity, a craft or something, but at the same time I'm noticing, I'm talking to them, I'm asking them questions without them really knowing what I'm doing. Sometimes even during break times, during break when I'm supervising, I try to find a boy, you know, whom I really, I'm not sure about, or for example and I need to talk to, I find the time to do it then.



Most students are right handed and some are left handed; some are fast workers, others work more slowly ...

UNDERSTANDING THE LEARNER'S PROCESS IN THE CONSTRUCTION OF KNOWLEDGE

This section considers the learner's process in the construction of knowledge and explores ways in which the learning of all pupils can be facilitated through a constructivist approach to teaching

Understanding constructivism

In order to understand the constructivist approach, it is best for the reader to reflect on this approach for a start. So, try to recall a recent lesson you have carried out or observed, or watch a video clip of a lesson in a primary school class. How, do you think, was learning occurring in the lesson? What was the role of the teacher? What was the role of the student? What blocked or facilitated the student's learning?

Your reflections will hopefully pick up some of the fundamental principles of what is known as 'constructivism', namely that the learner plays a very active role in the construction of his or her new knowledge, attitude or skills.

There is no one constructivist theory of learning, and psychologists and educators who use the term often mean very different things. One way of organising constructivist views is to distinguish between the *psychological* and *social* construction of knowledge, associated with the theories of Jean Piaget and Lev Vygotsky respectively. Psychological constructivists are concerned with how people build up elements of their individual knowledge, beliefs, self-concept, etc, and as such they focus on the self regulation of the learner, on his or her inner psychological life. *Social* constructivists, by contrast, are concerned with how knowledge is constructed through the process of social interaction, and thus focus on the contributions that culture makes to each one's construction of understanding of the world.

The main point of constructivism is that humans actively construct their knowledge rather than receive it, fully formed, from external sources, which include the physical world and the various forms of social wisdom and which range from other persons to language, schooling, or television. Humans use information from these various sources to create theories of the world, methods for overcoming physical and social obstacles of various sorts, concepts of other people and of society, and modes of problem solving. ...

Constructivist theorists stress different aspects of the process. Some, like Vygotsky, stress the extent to which constructions are influenced by language, adults, and, indirectly, by the social and economic systems. Others, like Piaget, emphasise the child's private construction of reality. Yet ... there is widespread agreement among psychologists that the child does not develop concepts and ways of thinking primarily because the world imposes them, parents or teachers inculcate them, culture provides ways of thinking about them, or the mind innately contains them. Instead, the child actively uses information from the world, the lessons provided by parents and schools, the cultural legacy, and the species biological inheritance as bases for constructing knowledge. ...

Incorporating constructivism deeply into our thinking requires that we always recognise that the child's ways (and those of other people) may not be ours. The child may see the world differently, approach it differently, understand it differently. (Ginsburg, 1997, pp. 58-9)

For a more detailed explanation of constructivist views of learning, read **Thirteen ed on line (2004)**.

It is worth exploring some of Piaget's and Vygotsky's writings on psychological and social constructivist views of learning and development.



In a constructivist approach the teacher sees herself as a facilitator of children's learning

Psychological construction of knowledge (Piaget)

One of Piaget's books was called, *The construction of reality in the child* (1937). Within Piaget's approach, the reality of the world is not waiting to be found, but rather children must *construct* it from their own mental and physical actions. Even when something is explained to them, even when they are just imitating or copying something, children must actively integrate that knowledge with their own existing general understanding in order to be able to recall it and use it.

Piaget often regarded children as scientists engaged in problem solving about their world and he tried to get a picture of their mental processes, often making use of the errors he observed children making. In the extract from '*The origin of intelligence of the child*', Piaget describes how his daughter Jacqueline at 1 year 8 months struggles with a problem of sticking a pencil into a hole: he comments on the difference between 'sensorimotor groping' and 'invention' of relationships on the basis of mental representation (see Box 4.1).

Social construction of knowledge (Vygotsky)

Vygotsky is regarded as a key *social* constructivist Russian psychologist. Although he died at the age of 37 (and so was never able to formulate a complete theory of learning and development like Piaget), Vygotsky's ideas have been hugely influential in recent years. Vygotsky was a contemporary of Piaget (both were born in 1896) and he refers to Piaget in his work. Vygotsky too is concerned with meaningful learning, but his focus was on the contribution to children's learning by the social, including the instructional, context. Thus while Piaget highlighted, as in the extract above, the internal process of representation and invention within the child's mind, Vygotsky highlighted what he called the 'zone of proximal development', that is the difference between what the child can do by himself or herself and the more he or she can do with assistance from an adult or a more knowledgeable peer. At the same time Vygotsky like Piaget emphasises that imitation requires the active engagement of the child to reconstruct the new learning; and while he rejects the Piagetian emphasis on the child's readiness for learning, he still acknowledges the existence of 'sensitive periods' for benefiting from instruction in particular skills (note: the term 'mental age' is a measure of mental development in units of what is judged to be normally achieved by children at particular ages, (see Box 4.2).

Box 4.1

Invention and representation in the child

(Piaget, 1936/1977, pp. 377-379)

At 1 year 8 months 30 days Jacqueline has an ivory plate in front of her, pierced by holes of 1-2mm in diameter, and watches me put the point of a pencil in one of the holes. The pencil remains stuck vertically there and Jacqueline laughs. She grasps the pencil and repeats the operation. Then I hold out another pencil to her but with the unsharpened end directed towards the plate. Jacqueline grasps it but does not turn it over and tries to introduce this end (the pencil is 5mm in diameter) into each of the three holes in succession. She keeps this up for quite a while even returning to the smallest holes. On this occasion we make three kinds of observations:

1. When I return the first pencil to Jacqueline she puts it in the hole correctly at once. When I hand it to her upside down, she turns it over even before making an attempt, thus revealing that she is very capable of understanding the conditions for putting it in. On the other hand, when I hold out the second pencil correctly directed (the point down) she also puts it in by the point. But if I offer it to her upside down she does not turn it over and recommences wishing to put it in by the unsharpened end. This behaviour pattern remained absolutely constant during thirty attempts, that is to say, Jacqueline never turned the second pencil over whereas she always directed the first one correctly. Everything happens as though the first attempts had given rise to a sensori-motor schema which persisted in acting during the whole series: the two pencils were accordingly conceived as being in contrast to each other, the first being that which one puts into the hole easily and the second that which resists. However, the pencils are of course identical from the point of view of the facility with which they can be put in the hole; the first is merely shorter than the second and is green and the second is brown (both have hard, black lead).
2. Several times Jacqueline, seeing the second pencil will not go in, tries to put it in the same hole as the first one. Hence, not only does she try to put it in by the unsharpened end but also she wants to put it into a hole which is already filled by the other pencil. She resumed this procedure several times despite total failure. This observation shows very well how, in a child of this age, representation of things is still ignorant of the most elementary mechanical and physical laws and so make it possible to understand why Jacqueline so obstinately tries to put in the second pencil by the wrong end. Ignorant of the fact that two objects cannot occupy the same small opening, there is no reason for her not to try to put an object 5mm in diameter in a 1-2mm hole.
3. At about the thirtieth attempt, Jacqueline suddenly changes methods. She turns the second pencil over as she does the first and no longer tries a single time to put it in by the wrong end. If the series of these new attempts is compared with the first series, one has the impression of a sudden understanding as of an idea which arises and which, when it has suddenly appeared, definitively imposes itself. In other words, the second pencil has suddenly been assimilated to the first. The primitive schema (connecting the two pencils by contrast) has dissociated itself and the pencil which one did not turn over has been assimilated to the particular schema of the pencil that one had to turn over. This kind of process is consequently again capable of making us understand the mechanism of invention.

The respect in which these behaviour patterns are original in relation to the preceding ones may thus be seen. The child finds himself in a situation which is new to him, that is to say, the objects arising between his intentions and the arrival at an end demand unforeseen and particular adaptation. It is therefore necessary to find adequate means. Now this means cannot be brought back to the procedures acquired earlier in other circumstances (as in the 'application of familiar means to new circumstances'); it is therefore necessary to innovate. If these behaviour patterns are compared to all the preceding ones, they resemble most the 'discovery of new means through active experimentation'. Their functional context is exactly the same. But, unlike the latter, the present behaviour patterns do not appear to operate by groping or apprenticeship, but by sudden invention; that is to say that instead of being controlled at each of the stages and *a posteriori* by the facts themselves, the searching is controlled *a priori* by mental combination. Before trying them, the child foresees which manoeuvres will fail and which will succeed. The control of the experiment therefore bears the details of each particular step. Moreover, the procedure conceived as being capable of succeeding is in itself new; that is to say it results from an original mental combination and not from a combination of movements actually executed at each stage of the operation.

Box 4.2**Imitation and instruction play a major role in the child's development**

(Vygotsky, 1934/1962, pp. 103-105)

Most of the psychological interventions concerned with school learning measured the level of mental development of the child by making him solve certain standardized problems. The problems he was able to solve by himself were supposed to indicate the level of his mental development at the particular time. But in this way only the completed part of the child's development can be measured, which is far from the whole story. We tried a different approach. Having found that the mental age of two children was, let us say, eight, we gave each of them harder problems that he could manage on his own and provided some slight assistance: the first step in a solution, a leading question, or some other form of help. We discovered that one child could, in co-operation, solve problems designed for twelve-year-olds, while the other could not go beyond problems intended for nine-year-olds. The discrepancy between a child's actual mental age and the level he reaches in solving problems with assistance indicates the zone of his proximal development; in our example, this zone is four years for the first child and one for the second. Can we truly say that their mental development is the same? Experience has shown that the child with the larger zone of proximal development will do much better in school. This measure gives a more helpful clue than mental age does to the dynamics of intellectual progress.

Psychologists today cannot share the layman's belief that imitation is a mechanical activity and that anyone can imitate almost anything if shown how. To imitate, it is necessary to possess the means of stepping from something one knows to something new. With assistance, every child can do more than he can by himself – though only within the limits set by the state of his development. Köhler found that a chimpanzee can imitate only those intelligent acts of other apes that he could have performed on his own. Persistent training, it is true, can induce him to perform much more complicated actions, but these are carried out mechanically and have all the earmarks of meaningless habits rather than of insightful solutions. The cleverest animal is incapable of intellectual development through imitation. ...

In the child's development, on the contrary, imitation and instruction play a major role. They bring out the specifically human qualities of the mind and lead the child to new developmental levels. In learning to speak, as in learning school subjects, imitation is indispensable. What the child can do in co-operation today he can do alone tomorrow. Therefore the only good kind of instruction is that which marches ahead of development and leads it; it must be aimed not so much at the ripe as at the ripening functions. It remains necessary to determine the lowest threshold at which instruction in, say, arithmetic, may begin since a certain minimal ripeness of functions is required. But we must consider the upper threshold as well; instruction must be oriented toward the future, not the past.

For a time, our schools favoured the "complex" system of instruction, which was believed to be adapted to the child's ways of thinking. In offering the child problems he was able to handle without help, this method failed to utilize the zone of proximal development and to lead the child to what he could not yet do. Instruction was oriented to the child's weakness rather than his strength, thus encouraging him to remain at the preschool stage of development.

For each subject of instruction there is a period when its influence is most fruitful because the child is most receptive to it. It has been called the *sensitive period* by Montessori and other educators. The term is used also in biology, for periods in ontogenetic development when the organism is particularly responsive to influences of certain kinds. During that period an influence that has little effect earlier or later may radically affect the course of development. But the existence of an optimum time for instruction in a given subject cannot be explained in purely biological terms, at least not for such complex processes as written speech. Our investigation demonstrated the social and cultural nature of the development of the higher functions during these periods, i.e., its dependence on cooperation with adults and on instruction. Montessori's data, however, retain their significance. She found, for instance, that if a child is taught to write early, at four and half or five years of age, he responds by "explosive writing," an abundant and imaginative use of written speech that is never duplicated by children a few years older. This is a striking example of the strong influence that instruction can have when the corresponding functions have not yet fully matured. The existence of sensitive periods for all subjects of instruction is fully supported by the data of our studies. The school years as a whole are the optimum period for instruction in operations that require awareness and deliberate control; instruction in these operations maximally furthers the development of higher psychological functions while they are maturing. This applies also to the development of the scientific concepts to which school instruction introduces the child.



When supported by an adult, children can reach higher levels of achievement

Of course the above is only one part of a wider interaction between Piagetian and Vygotskian constructivism. But it does point out how both researchers were grappling with the process of children's construction of knowledge and how they both stressed the importance of meaningful learning, that is of the child's active interaction with intellectual challenges.

Integrating constructivist principles with responsive teaching

We have so far tried to build an understanding about constructivist teaching approaches. Constructivist approaches are regarded in this course as a tool for responsive teaching. The next challenge is to reflect on how constructivist approaches are an essential ingredient of responsive and inclusive teaching.

You may have a look at Box 4.3 first to think of the implications of constructivist approaches for the classroom.

A constructivist approach assumes that before you start, and while you are teaching, you try to get to know your children both as persons and as learners (Patterson, 2004a & b). Box 4.4 provides other suggestions.

Box 4.3

In a constructivist classroom, learning is . . .

(http://www.thirteen.org/edonline/concept2class/constructivism/index_sub1.html)

CONSTRUCTED

Students are not blank slates upon which knowledge is etched. They come to learning situations with already formulated knowledge, ideas, and understandings. This previous knowledge is the raw material for the new knowledge they will create.

ACTIVE

The student is the person who creates new understanding for him/herself. The teacher coaches, moderates, suggests, but allows the students room to experiment, ask questions, try things that don't work. Learning activities require the students' full participation (like hands-on experiments). An important part of the learning process is that students reflect on, and talk about, their activities. Students also help set their own goals and means of assessment. . . .

REFLECTIVE

Students control their own learning process, and they lead the way by reflecting on their experiences. This process makes them experts of their own learning. The teacher helps create situations where the students feel safe questioning and reflecting on their own processes, either privately or in group discussions. The teacher should also create activities that lead the student to reflect on his or her prior knowledge and experiences. Talking about what was learned and how it was learned is really important. . . .

COLLABORATIVE

The constructivist classroom relies heavily on collaboration among students. There are many reasons why collaboration contributes to learning. The main reason it is used so much in constructivism is that students learn about learning not only from themselves, but also from their peers. When students review and reflect on their learning processes together, they can pick up strategies and methods from one another. . . .

INQUIRY-BASED

The main activity in a constructivist classroom is solving problems. Students use inquiry methods to ask questions, investigate a topic, and use a variety of resources to find solutions and answers. As students explore the topic, they draw conclusions, and, as exploration continues, they revisit those conclusions. Exploration of questions leads to more questions. . . .

EVOLVING

Students have ideas that they may later see were invalid, incorrect, or insufficient to explain new experiences. These ideas are temporary steps in the integration of knowledge. For instance, a child may believe that all trees lose their leaves in the fall, until she visits an evergreen forest. Constructivist teaching takes into account students' current conceptions and builds from there. . . .

Box 4.4

Getting to know my students – samples of different types of questions to use

Sentence completion:

I am good at

I am bad at

I like

I dislike.....

My favourite hobby is

My most treasured possession is

I learn best when

I often get stuck in my work when

Yes/No questions

I understand most quickly when things are explained with pictures yes no

I like to work by myself yes no

I like to work in pairs or in groups yes no

I like to complete all my work yes no

I find it hard to start work yes no

I prefer to work fast yes no

I like to work on the floor yes no

Ticking a list

Which topics do you like best?

___English ___Maths ___Science ___PE

How do you like to work?

___alone

___in pairs

___in small groups

In which way do you like to present your work?

___Verbally

___Through drawings/chart

___On tape recordings

___Written by hand

___Written on the computer

Narratives

Write a story on the best person in your life

Describe the animal you like best and why you like it

Describe the best day in your life/your best school day

Students can be empowered in different ways



MULTIPLE INTELLIGENCES

The concern with engaging the learner actively calls for a close understanding of the way the learner processes knowledge. This section focuses on one of the windows into the learning process through the concept of 'multiple intelligences' and its implications for responsive teaching.

What is intelligence? What are Multiple Intelligences?

Intelligence is a term that is widely used (especially in fields such as education and psychology), but that can often be very difficult to define precisely. There are several moot points: Is intelligence the same as what is measured in IQ tests? Are some children more 'intelligent' than others? If so, how are they different? Is our 'intelligence' fixed or fluid? Why?

Most people have their own, idiosyncratic ideas about what intelligence is. There are in fact a variety of views on what constitutes intelligence even among researchers: A world known researcher of intelligence (Sternberg, 1997) has stated: "There seem to be almost as many definitions of intelligence as there were experts asked to define it". However, one can still identify some key similarities and differences

in the many ideas about intelligence. This is particularly likely when we think about the nature and structure of intelligence.

Some refer to a ‘single’ general ability or capacity. Others, by contrast, refer to a variety of ways in which someone could be considered intelligent. There are also likely to be some people whose ideas don’t fall into either camp - and probably a fair few who refuse to try and define the term because they feel it is meaningless! In truth there is no single correct definition – after all, we are talking about a theoretical construct! One theorist, Howard Gardner (1983), has provided some particularly influential ideas relating to the notion of *multiple* intelligences.

A constructive method for introducing Gardner’s theory of multiple intelligences is for one to take some time to reflect upon one’s own strengths and weaknesses, and likes and dislikes. What are you good at? What are you bad at? What do you enjoy doing? What do you hate doing? For instance, using Box 4.5 below, one can conclude: I feel that I have good language skills and relate well to other people. I enjoy reading and watching films. However, I am very poorly co-ordinated (you should see me trying to dance!), and struggle with tasks that require a sense of direction (I am notoriously poor at reading maps!).

Gardner’s conception of Multiple Intelligences

Whilst the above task may at first seem like a fairly basic challenge, it can actually be a very revealing way of introducing the notion of multiple intelligences. It can show that one has strengths in a number of areas and weaknesses in yet other areas, and that one’s ‘profile’

<p style="text-align: center;">Box 4.5 My strengths and weaknesses (List as many things as possible in each column)</p>			
I am good at...	I am bad at...	I like/enjoy...	I dislike...

Some students are absorbed by hands-on tasks



may be quite different from that of other people. Clearly, this does not fit with the notion of intelligence as a singular ability or capacity. Instead, it may be useful to think in more detail about Gardner's conception of multiple intelligences.

Gardner (1983) views an intelligence as the "ability to solve problems, or to create products, that are valued within one or more cultural settings." Thus, if you play a musical instrument, have a good sense of rhythm and enjoy going to concerts, this may be reflective of the fact that you have strong *musical intelligence*. By the same token, if you struggle to talk with and relate to other people and understand their feelings, this may reflect the fact that your *interpersonal intelligence* is under-developed. Gardner proposes 9 key intelligences, which he believes every individual possesses to a greater or lesser degree. He believes that each and every intelligence is fluid, and can be strengthened or weakened by our experiences. As such,

Gardner suggests that the question we should be asking (particularly in education), is not ‘how intelligent are you?’, but ‘how are you intelligent?’ **Box 4.3** lists the key intelligences that Gardner believes reside in all of us to a greater or lesser degree.

How does the concept of MI relate to education?

Gardner himself, in his account on ‘Myths and realities about Multiple Intelligences’, suggests that his concept of MI can be related to the attempt to develop a more personalised approach to education, but warns against superficial applications of the theory. In his account he does at the same time make interesting links between MI theory and different approaches to education (see **Box 4.7**).

While taking note of Gardner’s warnings, it might be useful to think of the varied ways in which a subject can be used to tap the

Box 4.6

Gardner’s Multiple Intelligences

(adapted from <http://www.thirteen.org/edonline/concept2class/mi/>)

Verbal-Linguistic Intelligence — well-developed verbal skills and sensitivity to the sounds, meanings and rhythms of words

Mathematical-Logical Intelligence — ability to think conceptually and abstractly, and capacity to discern logical or numerical patterns

Musical Intelligence — ability to produce and appreciate rhythm, pitch and timbre

Visual-Spatial Intelligence — capacity to think in images and pictures, to visualize accurately and abstractly

Bodily-Kinaesthetic Intelligence — ability to control one’s body movements and to handle objects skilfully

Interpersonal Intelligence — capacity to detect and respond appropriately to the moods, motivations and desires of others.

Intrapersonal Intelligence — capacity to be self-aware and in tune with inner feelings, values, beliefs and thinking processes.

Naturalist Intelligence — ability to recognize and categorize plants, animals and other objects in nature.

Existential Intelligence — sensitivity and capacity to tackle deep questions about human existence, such as the meaning of life, why do we die, and how did we get here.

Box 4.7

“MI theory is in no way an educational prescription”

(Gardner, 1999, pp. 89-92)

Contrary to much that has been written, MI theory does not incorporate a position on tracking, gifted education, interdisciplinary curricula, the schedule of the school day, the length of the school year, or other hot-button educational issues. In general, my advice has echoed the traditional Chinese adage: “Let a hundred flowers bloom.” ... Nonetheless, many hours of visiting MI classrooms (or viewing them on videotape) have sensitized me to possible superficial applications of the theory. In particular, I am leery of implementations such as the following:

- Attempting to teach all concepts of subjects using all of the intelligences. To be sure, most topics can be approached in varied ways, but applying a scattershot approach to each topic is a waste of effort and time.
- Believing that going through certain motions activates or exercises specific intelligences. I have seen classes in which children were encouraged to move their arms or run around, on the assumption that such exercise enhances bodily-kinaesthetic intelligence. It does not, any more than babbling enhances linguistic or musical intelligence. I don't mean that exercise is a bad thing, only that random muscular movements have nothing to do with cultivation of the mind, or even the body.
- Using intelligences primarily as mnemonic devices. It may well be easier to remember a list if one sings it (or dances to it). However, these uses of the “materials” of an intelligence are essentially trivial. What is not trivial is the capacity to think musically—for example, to draw on some of the structural features of the classical sonata form to illuminate aspects of concepts like biological evolution or historical cycles.
- Conflating intelligences with other desired outcomes. This practice proves particularly notorious when it comes to the personal intelligences. Interpersonal intelligence, the understanding of other people, is often distorted as a program for cooperative learning or as a playground for extroverts. Intrapersonal intelligence, the understanding of oneself, is often misused as a rationale for self-esteem programs or is attributed to introverts. These distortions and misapplications suggest a shallow (or nonexistent) understanding of my writings on intelligence.
- Labelling people in terms of “their” intelligences. For many people, tossing around the terminology of different intelligences is an enjoyable parlour game. I have nothing against someone speaking of himself informally as being “highly linguistic” or “spatially impaired.” However, when these labels become shorthand references for educators, they carry considerable risk. People so labelled may then be seen as capable of working or learning only in certain ways, a characterization that is almost never true. Even if it has a certain rough-and-ready validity, such labelling can impede efforts to provide the best educational interventions for success with a wide range of children.

For these reasons, I am loath to issue any imperatives for so-called MI schools. Instead, I regard MI theory as a ringing endorsement of three key propositions: We are not all the same; we do not all have the same kinds of minds (that is, we are not all distinct points on a single bell curve); and education works most effectively if these differences are taken into account rather than denied or ignored. Taking human differences seriously lies at the heart of the MI perspective. At the theoretical level, this means that all individuals cannot be profitably arrayed on a single intellectual dimension. At the practical level, it suggests that *any* uniform educational approach is likely to serve only a small percentage of children optimally.

When visiting a so-called MI school, I look for signs of personalization: evidence that all involved in the educational encounters take differences among human beings seriously and that they construct curricula, pedagogy, and assessment in the light of these differences. Overt attention to MI theory and to my efforts means little if the children are treated in a homogenized way. By the same token, whether or not staff members have ever heard of MI theory, I would happily send my children to a school that takes differences among children seriously, that shares knowledge about differences with children and parents, that encourages children to assume responsibility for their own learning, and that presents materials in such a way that each child has the maximum opportunity to master those materials and to show others and themselves what they have learned and understood.

Indeed, in education, the challenge of the next millennium consists precisely in this: Now that we know about the enormous differences in how people acquire and represent knowledge, can we make these differences central to teaching and learning? Or will we instead continue to treat everyone in a uniform way? If we ignore these differences, we are destined to perpetuate a system that caters to an elite—typically those who learn best in a certain, usually linguistic or logical-mathematical manner. On the other hand, if we take these differences seriously, each person may be able to develop his or her intellectual and social potential much more fully.

different intelligences. Table 4.1 shows the possible learning activities involving a Visuo-spatial mode that can be used for concepts in the various subjects.

COGNITIVE AND LEARNING STYLES

This section considers another attempt at understanding how students learn through the concept of cognitive and learning styles, which are complementary to but at the same time distinct from the concept of multiple intelligences.

Table 4.1
Lesson Planning Ideas: *Visual/Spatial Intelligence*
 (http://www.multi-intell.com/MI_chart.html)

HISTORY	MATHEMATICS	LANGUAGE ARTS	SCIENCE & HEALTH
Have imaginary talks/ interviews with people from the past	Do a survey of students' likes/ dislikes then graph the results	Play vocabulary words "Pictionary"	Draw pictures of things seen under a microscope
Make visual diagrams & flow charts of historical facts	Estimate measurements by sight & by touch	Teach "mind mapping" as a note taking process	Create posters/ flyers showing healthy eating practices
Imagine going back in time—see what it was like "back then"	Add, subtract, multiply, & divide using various manipulatives	Draw picture of the different stages of a story you're reading	Create montages/ collages on science topics (e.g. mammals)
Paint a mural about a period of history	Imagine using a math process successfully, then really do it	Learn to read, write, & decipher code language	Draw visual patterns that appear in the natural world, also the microscopic
Imagine & draw what you think the future will be like	Learn metric measurements through visual equivalents	Use highlight markers to "colorize" parts of a story or poem	Pretend you are microscopic & can travel in the bloodstream

Distinction between cognitive styles and multiple intelligences or intellectual ability

First of all it should be noted that cognitive or learning style is distinguished from intelligence. Gardner (1999a, b, c), citing Silver, gives the following example:

People with strengths in particular intelligences must still decide how to exploit these strengths. For example, someone gifted with linguistic intelligence might decide to write poetry or screenplays, engage in debates, master foreign languages, or enter crossword puzzle contests. Perhaps the decision about *how* to use one's favoured intelligences reflects one's preferred style. Thus, for example, introverted people would be more likely to write poetry or do crossword puzzles, whereas extroverted ones would be drawn to public speaking, debating, or television talk shows. (pp.84-5)

Cognitive styles should also be distinguished from intellectual ability. Unlike individual differences in abilities which describe one's highest performance, styles describe a person's typical mode of thinking, remembering or problem solving. Furthermore, styles are usually considered to be bipolar dimensions whereas abilities are unipolar (ranging from zero to a maximum value). Having more of an ability is usually considered beneficial, while having a particular cognitive style simply denotes a tendency to behave in a certain manner (see <http://tip.psychology.org/styles.html>).

What are cognitive and/or learning styles?

Cognitive styles have been defined as an individual's characteristic and consistent approach to organising and processing information. These have sometimes been claimed to be part of one's innate constitution, comparing it to handedness: 'You have two hands. You use them both. But most people are either "right handed" or "left handed". That is, they have a natural inclination or preference for one hand.'

Cognitive styles are sometimes distinguished from *Learning styles* which are seen as including preferred learning environments. Often the two terms are used interchangeably.

Cognitive styles have been investigated over the years. There are now at least 100 different instruments claiming to identify individual ways of learning (Reid, 2005). These can be classified in a variety of ways (see Box 4.8).



Time and space for relaxed self-directed learning may be preferred by some children

Criticism of learning styles

Theoretically, cognitive and learning styles could be used to predict what kind of instructional strategies or methods would be most effective for a given individual and learning task. Research to date on this problem has not identified many robust relationships (see Snow, 1989). **Denzine (1999)** suggested that, rather than on cognitive styles, one should focus on basic learning processes:

Teachers should instead focus their energies in assessing student's prior knowledge (declarative and procedural knowledge) in specific domains. In addition, teachers should be aware of the important role that encoding, attention, motivation, and metacognition plays in all learning situations.

Critics usually focus on certain key issues:

- The lack of reliability seen in some of the learning styles instruments;
- The competing perspectives on learning styles, even among supporters of the concept;

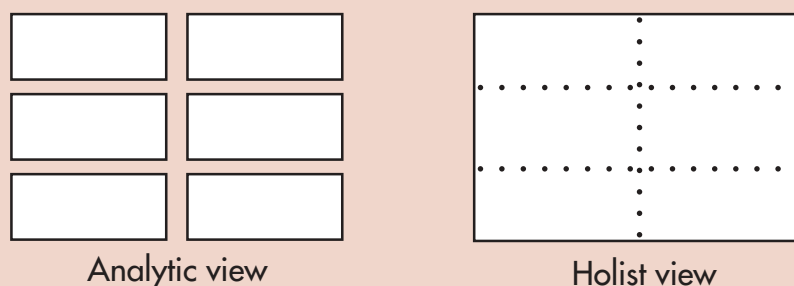
Box 4.8

Three principal approaches to learning styles
(Grigorenko & Sternberg, 1997)

a. The cognition-centred approach: This focuses on the characteristic ways in which people perform intellectually. This includes, for instance, the Field Dependence (FD) versus Field Independence styles:

Field-dependence (FD) is a perceptual cognitive style dominated by the overall organization of the surrounding field where parts of the field are experienced as embedded in the field. Field-independence (FI) is a perceptual cognitive style in which parts of the field are perceived as discrete from the surrounding field as a whole. Research has indicated that FD individuals are less able to detect or identify any subtle change of an object or parts in a field; they have the tendency to comply with an organized field globally. FI individuals, by contrast, are more able to identify and disembodify the discreteness of an object or parts in a field; they tend to have a highly articulated body concept in mind. ... In addition to the evidence gained from neurophysiology, the question of what other effects, if any, influence or enlarge the differences observed between FD/FI individuals has been an intriguing one to be explored. (Huang, 2005, p.3)

Similarly, Riding (see e.g. 2002) suggested that all cognitive styles could be categorised according to two orthogonal dimensions, namely the holist-analytic dimension and the verbaliser-imager dimension. Holist-analytic cognitive style is seen in the tendency for individuals to process information either as an integrated whole or in discrete parts of that whole. Thus analytics are able to apprehend ideas in parts, but have difficulty integrating those into complete wholes. Holists on the other hand are able to view ideas as complete wholes, but have difficulty separating these ideas into discrete parts (see figure).



The verbaliser-imager cognitive style is seen in an individual's tendency to process information either in words or in images. Verbalisers are superior at working with verbal information, whereas imagers are better at working with visual and spatial information.

b. The personality-centred approach: This approach goes back to Carl Jung who had suggested that people differed on three bipolar dimensions, to which Myers-Briggs added a fourth. The following definitions are derived from Wikipedia:

- *Sensation/Intuition:* Sensing people tend to focus on the present and on concrete information gained from their senses. Intuitives tend to focus on the future, with a view toward patterns and possibilities, preferring to receive data from the subconscious, or seeing relationships via insights.
- *Extroversion/Introversion:* In the extraverted attitude the energy flow is outward, and the preferred focus is on other people and things, whereas in the introverted attitude the energy flow is inward, and the preferred focus is on one's own thoughts, ideas and impressions.
- *Thinking/Feeling:* Thinking people tend to base their decisions on logic "true or false, if-then" connections and on objective analysis of cause and effect. Feeling people tend to base their decisions primarily on values and on subjective evaluation of person centred concerns. Feeling people use "more or less, better-worse" evaluations. It could be said that thinkers decide with their heads, while feelers decide with their hearts.
- *Judgment/Perception:* People who prefer judging tend to like a planned and organized approach to life and prefer to have things settled. People who prefer Perceiving tend to like a flexible and spontaneous approach to life and prefer to keep their options open.

c. The activity-centred approach: This is more focused on the teaching and learning situation and is associated particularly with Kolb (1971, 2002) and Dunn & Dunn (1979).

Kolb (2002), who worked with adults, is best known for focusing on the ‘experiential learning process’. He described the learning process as consisting of “two dialectically related modes of grasping experience — Concrete Experience (CE) and Abstract Conceptualization (AC) — and two dialectically related modes of transforming experience — Reflective Observation (RO) and Active Experimentation (AE)”.

He then identified four learning styles related to these four processes, namely diverging and converging, and assimilating and accommodating:

- *Diverging:* An individual with diverging style has CE and RO as dominant learning abilities. People with this learning style are best at viewing concrete situations from many different points of view. It is labelled “Diverging” because a person with it performs better in situations that call for generation of ideas, such as a “brainstorming” session. People with a Diverging learning style have broad cultural interests and like to gather information. They are interested in people, tend to be imaginative and emotional, have broad cultural interests, and tend to specialize in the arts. In formal learning situations, people with the Diverging style prefer to work in groups, listening with an open mind and receiving personalized feedback.
- *Assimilating:* An individual with an assimilating style has AC and RO as dominant learning abilities. People with this learning style are best at understanding a wide range of information and putting into concise, logical form. Individuals with an Assimilating style are less focused on people and more interested in ideas and abstract concepts. Generally, people with this style find it more important that a theory have logical soundness than practical value. The Assimilating learning style is important for effectiveness in information and science careers. In formal learning situations, people with this style prefer readings, lectures, exploring analytical models, and having time to think things through.
- *Converging:* An individual with a converging style has AC and AE as dominant learning abilities. People with this learning style are best at finding practical uses for ideas and theories. They have the ability to solve problems and make decisions based on finding solutions to questions or problems. Individuals with a Converging learning style prefer to deal with technical tasks and problems rather than with social issues and interpersonal issues. These learning skills are important for effectiveness in specialist and technology careers. In formal learning situations, people with this style prefer to experiment with new ideas, simulations, laboratory assignments, and practical applications.
- *Accommodating:* An individual with an accommodating style has CE and AE as dominant learning abilities. People with this learning style have the ability to learn from primarily “hands on” experience. They enjoy carrying out plans and involving themselves in new and challenging experiences. Their tendency may be to act on “gut” feelings rather than on logical analysis. In solving problems, individuals with an Accommodating learning style rely more heavily on people for information than on their own technical analysis. This learning style is important for effectiveness in action-oriented careers such as marketing or sales. In formal learning situations, people with the Accommodating learning style prefer to work with others to get assignments done, to set goals, to do field work, and to test out different approaches to completing a project. (Kolb, 2002)

Dunn & Dunn (1978) on the other hand, described learning styles more in terms of preference for alternate learning situations such as:

- *Immediate environment:* sound, light, temperature, and seating design.
- *Emotionality:* motivation, persistence, responsibility/conformity and need for internal or external structure.
- *Sociological factors:* learning alone, with a partner, as part of a small group or team, with peers, with an authoritative or collegial adult, and/or in a combination of ways.
- *Physiological factors:* auditory, visual, tactile and/or kinesthetic perceptual preferences; food or liquid intake, chronobiological energy levels, mobility needs.
- *Psychological factors:* Indication of global or analytic cognitive/psychological processing inclinations and impulsive versus reflective inclinations. (Learning Styles Network, 2006)

- The notion that it is impractical to adhere to the individual learning styles of all children in a class;
- The controversy on whether matching individual learning styles to teaching styles and teaching materials actually produce more effective learning;
- The commercial element that often accompanies a particular learning styles perspective. Sometimes to implement a specific approach teachers need to attend a training workshop and purchase expensive material. (Reid, 2005, p.53)

The search for individual patterns of learning and problem solving, however, continues and it is worth educators' efforts if understood in the right perspective (see Let Me Learn, below):

Some theorists see learning styles as a fixed, perhaps genetically determined trait like size and hair colour. ... (But) It is well known that environmental influences are very powerful in determining a young person's characteristics both in terms of learning and behavioural factors. ... One is treading on dangerous territory therefore when attempting to ascribe a learning style to an individual as a fixed trait.

Additionally it needs to be recognised that many, indeed most, of the instruments measuring learning styles are based on self report. This method of obtaining data relies heavily on the individuals' awareness and accuracy in identifying their awareness of their preferences. If the descriptions based on questionnaire responses were seen as a guide rather than as an accurate and absolute picture, then the questions being put forward in any scientific scrutiny would be qualitatively different ... relating to the value of the data obtained by that instrument in guiding classroom learning, teaching and curriculum development. (Reid, 2005, p.54)

THE LET ME LEARN PROCESS

This section presents an approach to understanding the learner, learning patterns and the learning process, through the Let Me Learn (LML) Process proposed by Johnston (1996; 1998).

Aiming to empower learners to take control of their own learning

If we can understand how we learn, then we should be able to make better use of our own patterns of learning with intention. The LML approach focuses on the learners' ability to understand and thus take control of their own individualised paths to learning.

Through a review of literature and an interpretation of neuroscientific studies, Christine Johnston and colleagues have identified four patterned mental operations, namely Sequential processing, Precise processing, Technical reasoning and Confluence (Johnston, 1996, 1998 and 2004b). Table 4.2 shows how these patterns manifest themselves in three dimensions, namely while we process information (Cognitive Domain), while we respond to the information by performing an action (Conative Domain), and how we react affectively in situations that call for the use of the particular pattern (Affective Domain).

Johnston and Dainton (1996, 2003) developed and validated a self-assessment instrument called the *Learning Connections Inventory* (LCI) which has been developed over a four year period in different versions for use by both adults and children to assess their own learning processes along the four patterns. The LCI has been validated internationally using standard psychometric protocols and factor analysis. The reliability was assessed via test-retest and internal consistency methods, and validity through content, construct, and predictive methods. The inventory is neither a skills assessment nor determinant of achievement or success. It is designed to measure the degree to which one uses several mental processes or learning patterns, and then uses that knowledge to develop strategies and reflect upon one's level of success in any endeavor.

Let Me Learn in the classroom

This process has been used successfully in industry and a number of universities and with both in-service as well as pre-service teachers. In Malta this process has been developed as a successful in-service professional development process. A sizable number of teachers every year follow an organized training programme which sets them on a process that helps them understand better their learners and thus respond effectively to their needs, while empowering them to become intentional learners.

Table 4.2
The four learning patterns

	How I think (Cognitive Domain)	How I do Things (Conative Domain)	How I Feel (Affective Domain)
Sequence	<ul style="list-style-type: none"> • I organize information • I mentally analyze data • I break tasks down into steps 	<ul style="list-style-type: none"> • I make lists • I organize • I plan first, then act 	<ul style="list-style-type: none"> • I thrive on consistency and dependability • I need things to be tidy and organized • I feel frustrated when the game plan keeps changing • I feel frustrated when I'm rushed
Precision	<ul style="list-style-type: none"> • I research information • I ask lots of questions • I always want to know more 	<ul style="list-style-type: none"> • I challenge statements and ideas that I doubt • I prove I am right • I document my research and findings • I write things down • I write long e-mail messages and leave long voice mail messages 	<ul style="list-style-type: none"> • I thrive on knowledge • I feel good when I am correct • I feel frustrated when incorrect information is accepted as valid • I feel frustrated when people do not share information with me
Technical	<ul style="list-style-type: none"> • I seek concrete relevance - what does this mean in the real world? • I only want as much information as I need - nothing extraneous 	<ul style="list-style-type: none"> • I get my hands on • I tinker • I solve the problem • I do 	<ul style="list-style-type: none"> • I enjoy knowing how things work • I feel good that I am self sufficient • I feel frustrated when the task has no real world relevance • I enjoy knowing things, but I do not feel the need to share that knowledge
Confluence	<ul style="list-style-type: none"> • I read between the lines • I think outside the box • I brainstorm • I make obscure connections between things that are seemingly unrelated 	<ul style="list-style-type: none"> • I take risks • I am not afraid to fail • I talk about things a lot • I might start things and not finish them • I will start a task first - then ask for directions 	<ul style="list-style-type: none"> • I enjoy energy • I feel comfortable with failure • I do not enjoy having my ideas criticized • I feel frustrated by people who are not open to new ideas • I enjoy a unique challenge • I feel frustrated by repeating a task over and over

A Maltese teacher of 8-year old children, who was trained in the *Let Me Learn* process, described how she has found the process useful in a variety of situations:

On respecting the different patterns:

In order to involve everyone in the learning ... I became conscious of the fact that children learn in different ways. And this is evident when you see the children improving. If you look at our classrooms, you'll see various tables with blocks, beads, jigsaw puzzles... There are children who learn by stacking objects, by building this and that, and we have a new mathematics system regarding this. This system will suit them appropriately. We're emphasizing on how we present the concept of a sum. For example we do addition by building with blocks. Then there are other students who use an abstract method even though they're still young. When you keep on using the concrete methods, you see the children getting fed up, putting the blocks away... It is important to be aware of such things, to study and observe our students.

On grouping children with different learning patterns:

T: Thanks to the training I had in the Let Me Learn course, I'm grouping the children according to their learning patterns. In each group I have a technical child, a sequential child, another child who is precise and a confluent child.

I: And does it work?

T: It works and the group work succeeds. In fact this year I had a student teacher and she wanted to change the grouping system. She wanted to leave them in groups but according to the criterion of their favourite colour; the blue group, the pink group and the red group. And she had many problems. In fact during her tutor's visit, the activity she wanted to do did not succeed. One of the groups consisted of all the leaders together, she had children with the same learning pattern in one group. If for example they had to attach a picture, there were three technical children who wanted to attach the picture and they started fighting.

On supporting children with learning difficulties:

Once again, I'll mention the training I had in 'Let Me Learn'. This really helped these two children with learning difficulties. I succeeded to integrate these children with the rest with regards to



the combination of learning patterns. I understood their ways of learning, they both like precision. They both need that kind of security. The educational system indicated to both of them that they will not succeed, that they lag behind. And even for example when I'm distributing worksheets, they tell me, "That's not good for me, Miss. I'll work the one of the facilitator." All these comments come from messages they have been receiving repeatedly over the years. When I worked on the strength of their learning patterns, on the need for precision, on the need for security... I realized I understood things I had never understood before. For instance, it is not enough to give them work that is suitable for them. They need to feel that... It's the soft toy we have in us which represents the need to search in books, to have somebody beside you, the need that someone praises you and tells you you're good, and to revise again. This shows particularly in one of the girls who holds the facilitator's hand very tightly; she is constantly attached to her... this need of security. When, for instance, I do a craft lesson, I divide them into groups, and there is a girl who is very good in craft. For instance, they are able to bring a lot of things from home. You'll notice that when you integrate them in this way, you'll combine their learning patterns with that of other children. They benefit a lot from this. I mean I am not in this way addressing the problem as such: I'm not saying, "Look, she's autistic and so..." But I am including them.

One of the important experiences teachers go through during their training is that they can try out the LCI themselves and start thinking about their own learning patterns first. You may take this inventory to learn about your personal combination of patterns on-line at: <http://www.lcrinfo.com>.

For a wider explanation of the Let Me Learn process, you may read **Calleja (2005)**; and for suggestions on how to score and interpret and use it in the classroom, including the development of lessons appropriate for different pattern combinations, see **Calleja (2005b & c; 2006)**.

EMOTIONAL INTELLIGENCE

This section highlights the affective underpinning of the student's engagement with learning through a focus on the recently studied phenomenon of emotional intelligence (EI).

Box 4.9

Goleman's (1995) concept of Emotional Intelligence

(adapted from <http://www.funderstanding.com/eq.cfm>)

In navigating our lives, it is our fears and envies, our rages and depressions, our worries and anxieties that steer us day to day. Even the most academically brilliant among us are vulnerable to being undone by unruly emotions. The price we pay for emotional literacy is in failed marriages and troubled families, in stunted social and work lives, in deteriorating physical health and mental anguish and, as a society, in tragedies such as killings... (Goleman, Report on emotional literacy, 1994)

Goleman attests that the best remedy for battling our emotional shortcomings is preventive medicine. In other words, we need to place as much importance on teaching our children the essential skills of Emotional Intelligence as we do on more traditional measures like IQ and GPA.

Exactly what is Emotional Intelligence? The term encompasses the following five characteristics and abilities:

1. **Self-awareness** – knowing your emotions, recognizing feelings as they occur, and discriminating between them
2. **Mood management**—handling feelings so they're relevant to the current situation and you react appropriately
3. **Self-motivation** – “gathering up” your feelings and directing yourself towards a goal, despite self-doubt, inertia, and impulsiveness
4. **Empathy** – recognizing feelings in others and tuning into their verbal and nonverbal cues
5. **Managing relationships** – handling interpersonal interaction, conflict resolution, and negotiations

Why Do We Need Emotional Intelligence?

Research in brain-based learning suggests that emotional health is fundamental to effective learning. According to a report from the National Center for Clinical Infant Programs, the most critical element for a student's success in school is an understanding of how to learn (Goleman, 1994, p. 193.) The key ingredients for this understanding are:

- Confidence
- Curiosity
- Intentionality
- Self-control
- Relatedness
- Capacity to communicate
- Ability to cooperate

These traits are all aspects of Emotional Intelligence. Basically, a student who learns to learn is much more apt to succeed. Emotional Intelligence has proved to be a better predictor of future success than traditional methods like the GPA, IQ, and standardized test scores.

Hence, the great interest in Emotional Intelligence on the part of corporations, universities, and schools nationwide. The idea of Emotional Intelligence has inspired research and curriculum development throughout these facilities. Researchers have concluded that people who manage their own feelings well and deal effectively with others are more likely to live content lives. Plus, happy people are more apt to retain information and do so more effectively than dissatisfied people. Building one's Emotional Intelligence has a lifelong impact. Many parents and educators, alarmed by increasing levels of conflict in young schoolchildren—from low self-esteem to early drug and alcohol use and to depression, are rushing to teach students the skills necessary for Emotional Intelligence. And in corporations, the inclusion of Emotional Intelligence in training programs has helped employees cooperate better and be more motivate, thereby increasing productivity and profits.

Box 4.10

Social and emotional learning (SEL)

by the Collaborative for Academic, Social and Emotional Learning

(see http://www.casel.org/about_sel/WhatisSEL.php)

Social and emotional learning (SEL) is the process of acquiring the skills to recognize and manage emotions, develop caring and concern for others, make responsible decisions, establish positive relationships, and handle challenging situations effectively. Research has shown that SEL is fundamental to children's social and emotional development—their health, ethical development, citizenship, academic learning, and motivation to achieve. Social and emotional education is a unifying concept for organizing and coordinating school-based programming that focuses on positive youth development, health promotion, prevention of problem behaviors, and student engagement in learning. The best SEL practice involves students, parents, community members, and educators as partners in planning, implementation, and evaluation.

Learning social and emotional skills is similar to learning other academic skills in that the effect of initial learning is enhanced over time to address the increasingly complex situations children face with regard to academic subjects, social relationships, citizenship, and health. Planned, systematic, social and emotional education begins in preschool and continues through high school. Developmentally and culturally appropriate SEL classroom instruction is provided in the context of a safe, caring, well-managed and participatory school environment. Students learn, practise, and apply SEL skills by engaging in positive activities in and out of the classroom.

What is emotional intelligence?

A widely agreed dimension in learning is its connection to one's emotional state. There are few concepts in recent years that have caught the imagination of educators as much as that of 'emotional intelligence'. Also referred to as 'emotional literacy' or 'emotional competence', the term embraces an understanding of the importance of social and emotional development in our general health and well-being as well as learning:

Emotional aptitude is a *meta-ability*, determining how well we can use whatever other skills we have, including new intellect. (Goleman, 1994, p. 80)

Although rather difficult to pin down to an exact definition, several

authors have given their ideas about what we mean by ‘EI’. Two of these are given in Boxes 4.9, 4.10, and 4.11 under the terms Emotional Intelligence (EI), Social and Emotional Learning (SEL), and Emotional Literacy respectively.

Box 4.

About emotional literacy

(see <http://www.antidote.org.uk/about/about.html>)

Antidote defines emotional literacy as **‘the practice of interacting with others in ways that build understanding of our own and others’ emotions, then using this understanding to inform our actions.’**

Emotional literacy has a vital part to play in tackling the three great challenges facing our communities, by enabling people to:

- find ways of feeling connected to each other, and of using their relationships to process the emotions that might otherwise cause them to lash out in rage or to withdraw in despair;
- deal with the emotions that can render them unable to take in new information, and to access emotional states such as curiosity, resilience and joy that lead to a richer experience of learning.
- engage in activities that promote both physical and emotional well-being, and to broaden the range of what they can talk about with each other in ways that make it less likely they will abuse drugs and alcohol, bully their peers or engage in other forms of self-destructive activity.

Organisations can promote emotional literacy by paying attention to the quality of relationships, and by creating diverse opportunities for people to have the sort of conversations that will enable them to appreciate the thoughts and feelings of each other.

In an emotionally literate organisation or community, people will still argue with each other, become angry and sometimes lose interest in working together. But when they do, the emotions that drive these situations can be acknowledged, talked about, dealt with and learned from.

“The world would be a very different place if people were enabled to develop the emotional literacy they need to bring about the sort of changes that would improve the quality of their own and everybody’s lives.” (Glenys Kinnock, MEP)

Emotional intelligence in school

Although there is disagreement about the actual benefits of improved EI in schools, most educators agree that the key to instilling positive change in this area lies in the climate and ethos of the institution. Considerations of Emotional Intelligence in education are thus related to the following type of questions:

- Are pupils and staff motivated to achieve a common goal? Is the school leadership team inspiring?
- How is conflict handled in the school?
- What is the overall climate like in the classroom?
- How would you characterize the quality of the relationships between members of the school (e.g. pupils, teachers etc.)?
- Is openness, sensitivity and empathy encouraged? How?
- How is difference (in terms of background, viewpoint etc.) dealt with in the school?

THE LEARNING PROCESS AND ATTRIBUTIONAL STYLE

This section focuses on another important characteristic of learners that has been studied in psychology, namely attributional style and its positive or negative impact on students' general well-being, effort and achievement.

What is attributional style?

In order to understand attributional style, let us start by exploring a brief case portrait of an imaginary pupil, named Asif. Let us consider the sources and impact of his style of attribution in relation to success and failure in school.

Asif is an 8 year-old boy at Smithton primary school. His academic achievement was very good when he first entered the school at age 5, but it has gradually worsened over the last 12-18 months. During this time, Asif's behaviour in school has also changed. He seems less engaged in academic tasks, and is not as happy to participate in school work as he once was. When asked about pieces of school work in which he has not done well, Asif says it is because he is 'thick' and 'dumb'. Conversely, on occasions where he has achieved

Box 4.12

Attribution theory

(Weiner, 1986: <http://tip.psychology.org/weiner.html>)

Attribution theory is concerned with how individuals interpret events and how this relates to their thinking and behavior. Heider (1958) was the first to propose a psychological theory of attribution, but Weiner and colleagues (e.g., Jones et al, 1972; Weiner, 1974, 1986) developed a theoretical framework that has become a major research paradigm of social psychology. Attribution theory assumes that people try to determine why people do what they do, i.e., attribute causes to behavior. A person seeking to understand why another person did something may attribute one or more causes to that behavior. A three-stage process underlies an attribution: (1) the person must perceive or observe the behavior, (2) then the person must believe that the behavior was intentionally performed, and (3) then the person must determine if they believe the other person was forced to perform the behavior (in which case the cause is attributed to the situation) or not (in which case the cause is attributed to the other person).

Weiner focused his attribution theory on achievement (Weiner, 1974). He identified ability, effort, task difficulty, and luck as the most important factors affecting attributions for achievement. Attributions are classified along three causal dimensions: locus of control, stability, and controllability. The locus of control dimension has two poles: internal versus external locus of control. The stability dimension captures whether causes change over time or not. For instance, ability can be classified as a stable, internal cause, and effort classified as unstable and internal. Controllability contrasts causes one can control, such as skill/efficacy, from causes one cannot control, such as aptitude, mood, others' actions, and luck.

Attribution theory is closely associated with the concept of motivation. It also relates the work done on scripts and inferencing done by Schank.

Scope/Application:

Weiner's theory has been widely applied in education, law, clinical psychology, and the mental health domain. There is a strong relationship between self-concept and achievement. Weiner (1980) states: "Causal attributions determine affective reactions to success and failure. For example, one is not likely to experience pride in success, or feelings of competence, when receiving an 'A' from a teacher who gives only that grade, or when defeating a tennis player who always loses...On the other hand, an 'A' from a teacher who gives few high grades or a victory over a highly rated tennis player following a great deal of practice generates great positive affect." (p.362). Students with higher ratings of self-esteem and with higher school achievement tend to attribute success to internal, stable, uncontrollable factors such as ability, while they contribute failure to either internal, unstable, controllable factors such as effort, or external, uncontrollable factors such as task difficulty. For example, students who experience repeated failures in reading are likely to see themselves as being less competent in reading. This self-perception of reading ability reflects itself in children's expectations of success on reading tasks and reasoning of success or failure of reading. Similarly, students with learning disabilities seem less likely than non-disabled peers to attribute failure to effort, an unstable, controllable factor, and more likely to attribute failure to ability, a stable, uncontrollable factor.

Lewis & Daltroy (1990) discuss applications of attribution theory to health care. An interesting example of attribution theory applied to career development is provided by Daly (1996) who examined the attributions that employees held as to why they failed to receive promotions.

Example:

Attribution theory has been used to explain the difference in motivation between high and low achievers. According to attribution theory, high achievers will approach rather than avoid tasks related to succeeding because they believe success is due to high ability and effort which they are confident of. Failure is thought to be caused by bad luck or a poor exam, i.e. not their fault. Thus, failure doesn't affect their self-esteem but success builds pride and confidence. On the other hand, low achievers avoid success-related chores because they tend to (a) doubt their ability and/or (b) assume success is related to luck or to "who you know" or to other factors beyond their control. Thus, even when successful, it isn't as rewarding to the low achiever because he/she doesn't feel responsible, i.e., it doesn't increase his/her pride and confidence.

Principles:

1. Attribution is a three stage process: (1) behavior is observed, (2) behavior is determined to be deliberate, and (3) behavior is attributed to internal or external causes.
2. Achievement can be attributed to (1) effort, (2) ability, (3) level of task difficulty, or (4) luck.
3. Causal dimensions of behavior are (1) locus of control, (2) stability, and (3) controllability.

high marks, Asif explains that the work was 'easy' or that he 'got lucky'.

- What is the pattern of explanations Asif gives in relation to his successes and failures in school? What do they tell us about his view of himself as a learner?
- What are the possible sources of these explanations? E.g. Why did Asif start to think like this?
- What impact might Asif's pattern of explanations have on his learning and participation in school?

The answers to these questions related to the explanations (i.e. attributions) Asif made for his success and failures in school (what did he attribute success and failure to?). This phenomenon forms part of a key area of social psychology known as *attribution theory*.

Understanding the attributional styles of your children

As we saw in the previous section, a pupil's style of attribution can influence his/her subsequent behaviour greatly, and so it is a key concern of the responsive teacher. First of all teachers need to become aware of the different attributional styles of their students. This requires time to listen to students talking about their successes and failures.

Developing adaptive attributional styles

Teachers can influence their students' attributional styles. Once they become aware of the explanations their students are using, teachers can then try to reframe their reasoning. For instance, teachers themselves have a general feedback style and ways in which they use praise in the classroom which are related to a particular attribution style.



THINK



REFLECT



PLAN

This chapter has highlighted the constructivist principle of the essential need for active engagement of the learner, and therefore of the importance for the teacher to get to know the students' various learning characteristics, strengths and needs in order to enable their active participation in the curriculum.

Did it make you ask any new questions about the way we teach? Here are some questions and activities you might like to make use of:

Constructivist learning principles

- Observe, or watch a video of, a lesson and focus on how learning is occurring: *What roles do the students and teacher play in the learning process?*
- Reflect on the two extracts from Piaget and Vygotsky on children's learning processes. (You can also read **Thirteen ed on line, 2004**, Workshop Constructivism as a paradigm for teaching and learning. EBC: <http://www.thirteen.org/edonline/concept2class/constructivism/index.html>)
- Are the views of Piaget and Vygotsky contradictory or complementary?
- Which of the two do you find most useful when thinking about how to develop your practice?
 - You may want to illustrate your reflections with examples from your teaching practice, your observations of other teachers, or your own experiences as a learner.

Constructivism in the classroom

- From your experience as a teacher and a learner, does the constructivist approach appear to be a realistic view of learning? Do you feel the approach is reflected in modern teaching methodology? Are there alternative explanations of the learning process? Are these alternative explanations complementary to or incompatible with constructivism? (You may find **Thirteen ed on line, 2004**, Constructivist teaching design on three

common constructivist design models: http://www.thirteen.org/edonline/concept2class/constructivism/implementation_sub1.html; and Wetso, 2005).

- What is your overall philosophy of teaching and learning?
 - What assumptions (implicit or explicit) about the nature of children's learning are inherent in your approach?
 - What are the strengths and limitations of your general approach to teaching and learning in terms of reaching all children? (Be honest!)
 - What could you do to develop your teaching practice further in relation to responding to all children?
- When planning their teaching, constructivist educators tend to adhere to six key principles listed below: How far is your teaching incorporating these six principles?
 - Pose problems of emerging relevance to students.
 - Structure learning around primary concepts.
 - Seek and value students' points of view.
 - Adapt instruction to address student suppositions.
 - Allow students choice in deciding the content, form and direction of a lesson.
 - Assess student learning in the context of teaching.

Constructivist approaches and inclusive education

- What are the similarities between the constructivist approach and the principles of inclusion and responsive teaching?
- What elements of the constructivist approach would be most useful in trying to engage all learners?
- Are there any aspects of the constructivist view of learning that appear to be incompatible with the principles of inclusion?
- How is knowledge of the interactive learning patterns important in creating a true constructive approach to teaching and a truly inclusive environment?

Multiple Intelligences

- What is 'Intelligence'? What other words come to mind when you hear the word 'intelligence'?

- Thinking about your class, is there a child who you feel is more 'intelligent' than the others? If so, how would you describe him/her?
- Do you believe that our 'intelligence' is fixed or fluid? Why?
- What do your answers to the above reveal about your assumptions regarding children's intellectual development and learning?
- Take some time to reflect upon your own strengths and weaknesses, and likes and dislikes. What are you good at? What are you bad at? What do you enjoy doing? What do you hate doing? (You can use Table 4.1 above). Compare your table of strengths and weaknesses, likes and dislikes to Gardner's multiple intelligences. Which appear to be your strongest forms of intelligence? Which are you weakest?
- When you've finished filling in the table, discuss with your colleagues in class or on line: What are the similarities and differences between your strengths and weaknesses, likes and dislikes, and those of other participants?
- Make some notes on what you feel are the key educational implications of Gardner's theory.
- To what extent does current practice at the school take into account the multiplicity of intelligences that pupils possess?
- How might you go about implementing change and development at the school in line with Gardner's ideas about multiple intelligences?
- Is Gardner's theory compatible with a responsive teaching approach? Why? (see Gardner, 1999; Hanafin, Shevlin, & Flynn, 2002).
- How might the adoption of Gardner's theory lead to changes in approaches to teaching, learning and assessment? What kinds of changes and developments would occur in a typical classroom?

Learning styles

- Consider the different learning styles theories mentioned in the text. You may want to illustrate them with examples from your teaching practice, your observations of other teachers, or your own experiences as a learner.

- Do you feel the approach is reflected in modern teaching methodology? Why is knowledge of Learning Styles useful to teachers?
- Why is the notion of learning styles rejected by many educational psychologists? (see **Denzine, 1999**).
- Read about the Learning Connections Inventory (see **Calleja, 2005b**). Find a copy of the LCI and complete it now. Look at your score combination and write a brief reflection describing yourself as a learner.
- Play the movie and see how a teacher in a primary Maltese classroom has used four soft-toys to help children talk about their learning patterns.
 - Then discuss with your colleagues either on the forum or in class why such talk about the process of learning is important in a primary classroom.
 - Administer the LCI to 3 children (7 years or above) (NB: Remember you need to prepare them to use the likert scale). Try to validate the five inventories. (In **Calleja (2006)** you find words and verbs that usually indicate the patterns).
- Share with your tutor: the scores, the written responses, and how you interpreted and validated the responses. Once you have the validated scores, you need to start talking about these scores and their meaning with the pupils. You can also help pupils develop strategies for dealing with specific learning tasks.
- Having helped pupils to strategize their learning approaches to tasks, now reflect on the following situations:
 - What should I do if I (as a teacher or pupil) have to carry out an activity that involves a pattern which I tend to *avoid*? Or to carry out an activity that lacks the pattern which I *use first*?
 - If I have a very high score for a particular pattern (particularly if I am a strong-willed learner)... how do I deal with someone who avoids this particular pattern?
- Plan a lesson to fit learners' strategies. You can use the following steps:
 - Think of a lesson that you have to deliver in the near future that you have not yet planned. It should be on a topic/subject that you feel comfortable with.
 - During your planning make constant references to the

class profile (the dominant patterns) and make notes about how you can modify or support the different learners in your class.

- You can now start to plan your lesson. To have an idea of a lesson plan which is built with the patterns of the class and individual learners in mind see the two lesson plans in **Calleja (2005b)**. Share your lesson plan with your colleagues and your tutor.

Emotional intelligence

- What does ‘emotional intelligence’ mean to you? Can you remember where you came across the term?
- Which aspects of Gardner’s multiple intelligences does ‘EI’ most closely fit with?
- Read the definitions provided above (Box 4.2, Box 4.3, Box 4.4), which are from key authors and organisations in the field of EI, namely the guru of EI Daniel Goleman, the U.S. based *Collaborative for Academic, Social and Emotional Learning*, and the UK based *Antidote* organisation.
- Can EI be improved? What benefits may be obtained through improved EI? How does this relate to responsive teaching and more generally to the development of inclusive practices? (You can make use of the example in **Improving Emotional Intelligence (TTD)**).
- Considering the EI literature and the issues of healthy relationships and a supportive climate discussed in Chapter 3, think about how the climate, ethos and practices within the school may serve to facilitate or constrain social and emotional development and well-being in pupils and staff.

Attribution theory

- Read the case portrait given above of a pupil called ‘Asif’ and answer the three questions set after it.
- Think of 2 or 3 children in your class that should be able to achieve more than they do now. Discuss this with your colleagues and identify and list the factors you think contribute to underachievement in these pupils. Make some notes based on your discussions.

- Interview the children about how they think they are doing and what reasons/factors they identify as causes of their achievement level. As before, make some notes based on your discussions.
- Compare the notes you made in your interviews with the children to those you made in discussion with your colleagues. What kinds of attributions are being made (you may refer back to the reading from Weiner to help with terminology)? Are there discrepancies between the two sets of notes? Make some notes in which you integrate the accounts given in the two discussions.
- What does a pupil's attributional style reveal about:
 - Their perception of themselves?
 - Their feelings about the extent to which they have control over what happens to them ('locus of control')?
- What impact do you feel this is likely to have on:
 - Pupils' engagement and participation in school?
 - Their academic motivation?
 - Their achievement in school?
- What can you do as a teacher to intervene when pupils adopt maladaptive attributional styles?
 - What aspects of your behaviour may influence pupils' attributional styles? Think about things like your general feedback style and the ways in which you use praise in the classroom.
 - What other influences are there on pupils' attributional styles? To what extent are these controllable and/or amenable to change?

FURTHER READING

On constructivist approaches:

Ginsburg, H.P (1997). *Entering the child's mind* (pp. 58-61).
Cambridge: Cambridge University Press.

Piaget, J. (1936/1977). *The origin of intelligence in the child*.
UK: Penguin Books.

Piaget, J. (1964). Development and learning. In R. E. Ripple & V. N. Rockcastle (Eds.) *Piaget Rediscovered: Report on Conference on Cognitive Studies and Curriculum Development*. (Reproduced in J. K. Gardner (Ed.) (1978), *Readings in developmental psychology* (pp. 228-237). Boston: Little, Brown & Company).

Siegler, R.S., & Wagner Alibali, M. (2005). *Children's thinking* (4th ed.). New Jersey: Pearson.

Thirteen ed on line (2004). Workshop Constructivism as a paradigm for teaching and learning. EBC.(<http://www.thirteen.org/edonline/concept2class/constructivism/index.html>)

Thirteen ed on line (2004). Constructivist teaching design. EBC: (http://www.thirteen.org/edonline/concept2class/constructivism/implementation_sub1.html)

Vygotsky (1934/1962). The development of scientific concepts in childhood. In L. S. Vygotsky, *Thought and language* (pp. 82-97). Cambridge, MS: MIT.

For evidence-based recommendations for application of constructivist approaches:

Vosniadou, S. (2001). *How Children Learn, Educational Practices Series, 7*. Paris: The International Academy of Education (IAE) and the International Bureau of Education (UNESCO). (Available on <http://unesdoc.unesco.org/images/0012/001254/125456e.pdf>)

For practical ways in which you can get to know your students, see:

Patterson, L. (2004a). Knowing your students as People (<http://www.teachersnetwork.org/NTNY/nychelp/Assessment/knowingstudents.htm>)

Patterson, L. (2004b). Knowing your students as learners (<http://www.teachersnetwork.org/NTNY/nychelp/Assessment/knownlearners.htm>)

The following web-link outlines three common constructivist design models: http://www.thirteen.org/edonline/concept2class/constructivism/implementation_sub1.html

For more about Multiple Intelligences and Learning Styles, see

Calleja, C. (2005b). Understanding the learner: The Let Me Learn Process. In C. Calleja, *Differentiating instruction in the primary classroom* (pp. 75-92). Malta: Ministry of Education.

Calleja, C. (2005c). Example lessons using Let Me Learn Process. In C. Calleja, *Differentiating instruction in the primary classroom* (pp. 149-161). Malta: Ministry of Education.

Calleja, C. & Cauchi, B. (2006). Using LML in the classroom. Malta: DTMp.

Gardner (1999a). Myths and realities about Multiple Intelligences. In H. Gardner, *Intelligence reframed: Multiple intelligences for the 21st century* (pp. 89-92). New York: Basics Books.

Gardner, H. (1999b). MI versus cognitive styles. In H. Gardner, *Intelligence reframed: Multiple intelligences for the 21st century* (pp. 84-5). New York: Basics Books.

Hanafin, J., Shevlin, M., & Flynn, M. (2002). Responding to Student Diversity: lessons from the margin. *Pedagogy, Culture and Society*, 10 (3), 409-424.

Riding, R. (2002). *School learning and cognitive styles*. London: David Fulton.

<http://tip.psychology.org/styles.html>

<http://snow.utoronto.ca/Learn2/mod3/index.html> or <http://www.oswego.edu/~shindler/lstyle.htm>

Denzine, G. (1999). The existence of learning styles: Myth or reality? (<http://jan.ucc.nau.edu/~dlk/Learn.styles.html>)

For more about multiple intelligences, see <http://www.thirteen.org/edonline/concept2class/mi/>

Discussion about the relationship between learning styles and the Multiple Intelligences theory of Gardner can be found at

<http://www.ldpride.net/learningstyles.MI.htm> and
<http://falcon.jmu.edu/~ramseyil/learningstyles.htm> .

For more on attribution styles, see

<http://tip.psychology.org/weiner.html>
<http://www.psych.ucla.edu/Faculty/Weiner>
<http://www.as.wvu.edu/~sbb/comm221/chapters/attrib.htm>

CHAPTER

5

DIVERSIFYING THE CURRICULUM, TEACHING AND LEARNING

AIMS

This chapter focuses on how to diversify the content, process and product of the curriculum and teaching to engage and challenge each student. The more specific aims of this chapter are to provide the reader with an opportunity:

1. To develop a framework and guidelines for preparing and conducting responsive lessons through differentiation of learning content, process and product.
2. To critically reflect on how the *content* that is to be learnt can be differentiated to meet the needs of students for different levels of understanding and ways of engagement with the curriculum.
3. To critically reflect on the learning *process* and develop skills in the use of different learning activities to engage students with different learning profiles, including the use of direct instruction and provision of independent learning time, and the use of a collaborative and supportive learning climate and cooperative learning.
4. To raise awareness and reflection about the different ways in which we can help or hinder learning through the way we *assess* student achievement, with a focus on formative assessment and the use of portfolio assessment.



What the teachers say ...

5. ON DIFFERENTIATING THE CURRICULUM

TEACHER FROM GERMANY: *We start out easy by talking, everyone has something to tell or I have... We start the lesson with a song, and I also exercise with them, so both halves of the brain are active.*

TEACHER FROM MALTA: *T: (9-year olds) I try to have yes, four different levels. It's not always the same, sometimes it's in the content, sometimes it's in the execution. Sometimes the content might be the same but then the product given I would allow to have ...*

I: Can you give me an example? ...

T: Oh yes. I'll take creative writing, because most of the time it's creative writing where I really use this, because I have to use it. We're discussing the same topics, so the children will basically be talking about, discussing or writing about the same thing. For example, I'll give you an example of what we did last week. Last week we were doing letter writing, and the boys decided they wanted to write a letter to a footballer whom they're a fan of. So for some children, for example for my advanced group, I would expect that the letter would be written in the proper letter format: so the address is right in place, that the work is divided into paragraphs, that each paragraph has its own eh ... topic within it - so I do emphasize these things; so that's with the advanced group. With the average group, I do insist on the letter layout and the paragraphs, but then the switching from one paragraph to the next is still developing; so I, although I am aware of it, and I tell the boys about it, but I am not sort of like penalizing them on if it's right or wrong. I look at the content more than at the layout. And then, with the lower groups, it's the writing of sentences basically. So we are only at writing sentences: I forget about the letter format, they are just writing the sentences. For them writing five, six words in a row, in a sentence, that's already a lot.

So that is a differentiating sort of way. As a plenary it has all come together, because we're all, we have discussed the same thing, but then the product would be different.

TEACHER FROM UK: *T: It's (ICT) an exciting and enjoyable way to learn, and it's actually removing a lot of barriers through not having the written, sitting-down doing-hard-work aspect. Sitting at a computer is a lot more fun. Originally when they first came into use, we had the old BBC computers, when I was in.....*

I: The micros and masters, I remember those.

T: I used to think that's not good for social interaction and for sharing, but in actual fact, because the programmes nowadays are a lot more interactive because the children are more aware of what everything can do, you get three or four around a computer and the socialization, the sharing that goes on is fantastic.

TEACHER FROM GERMANY: *I want to keep the good ones busy, but I have to make sure the majority is taken care of, and that's hard.*

TEACHER FROM NETHERLANDS: *In my class you see that the pupils that learn more easily influence the weaker children by offering a helping hand. On the other hand, for example, I have a girl that has a lot of trouble reading, but almost always helps the third graders with their reading assignment. So you see that a child that actually has a lot of trouble with reading can still put her knowledge to use by helping the younger children.*



Group work for at least some of the time is an essential feature of differentiated lessons

THREE MAJOR ELEMENTS IN DIVERSIFYING THE CURRICULUM

This section introduces the framework for preparing and conducting responsive lessons through differentiation of learning content, process and product.

Differentiated teaching involves the teacher's skill in diversifying the curriculum to stimulate and empower all students to engage in meaningful and successful learning through the use of their diverse strengths and the meeting of their diverse needs.

This entails first of all, as described in Chapters 2 and 4, understanding the baggage students bring to the classroom, namely their *Interests, Learning profiles, Affect* and *Levels of Readiness*, together with the contextual baggage of *Students' Cultures* and the *Classroom Learning Environment* (Tomlinson, 2003). Secondly, as this chapter suggests, teachers also need to have a good grasp of the curriculum so that they can then match curricular goals and teaching arrangements to the students' characteristics (see figure 5.1).

We have already made reference to the need to create a social and learning environment that enables the engagement of each child (see Chapter 3). We now focus on three main elements that can be differentiated in the curriculum as identified by Tomlinson (2001) and UNESCO (2004), namely curriculum *content, process* and *product*

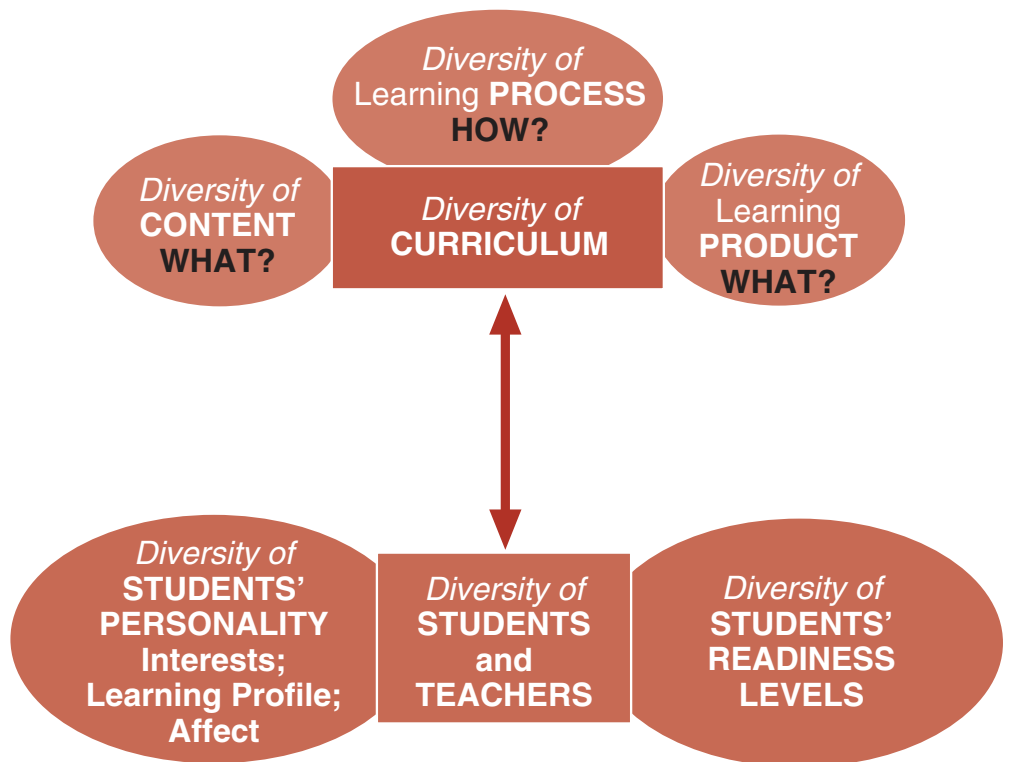


Figure 5.1: Matching a diversified curriculum to the diversity of student strengths and needs

(see Table 5.1 for possible ways of matching the curriculum elements to the different child characteristics).

What we teach, *how* we teach it and *how and what* we assess as evidence of achievement are often inextricably mixed together: teaching children to enjoy reading a book, providing them with the experience of reading books, and observing their interest and how they handle books are intertwined. However, it is still helpful to consider each of the three elements of teaching separately.

Content differentiation

Content can be differentiated by adapting, according to student characteristics, what is taught as well as how it is presented to students. While teaching the same core concept, such as number, one can deal with it at different levels of complexity. This allows students at different levels of readiness in the subject to be challenged with meaningful new learning that they can master. Teachers can also use multiple texts and supporting materials to appeal more widely to students' varied interests.

Process differentiation

This refers to the different pathways to learning we offer students in acquiring new concepts, attitudes or skills. This includes “any ‘sense-making activity’ through which a student is helped to progress from a current point of understanding or skill to a higher level of such understanding or skill” (Tomlinson, 2001). Instead of relying simply on ‘talk and chalk’ teaching and ‘paper and pencil’ tasks, responsive teachers use different strategies such as different modalities (visual, auditory, kinaesthetic ...), different types of tasks (role playing, problem solving, writing journals, making models), and different types of work arrangements (individual, pair, and group work with flexible groupings).

Product differentiation

This refers to what we ask students to do or produce to show their acquisition of new knowledge or skills. Such products are often entailed in the learning activities (process) students are engaged in. But this product also extends to the way we ultimately assess students' learning over extended periods of time – such end of unit or year assessments (Tomlinson, 2003). Because of the backwash impact assessment has

on learning activity, it is important that assessment is related to the core goals of learning while allowing a variety of ways for students to show their achievement – individually or in groups, orally (or on tape) or through performances or products that may or may not include writing.

Table 5.1
Relating student characteristics to differentiation of learning content, process and product

(Tomlinson, 2001: see <http://www.nwrel.org/msec/images/nwteacher/spring2002/model.pdf>)

	INTEREST	LEARNING PROFILE	READINESS
Content –includes book, materials	<ul style="list-style-type: none"> • varied texts and other materials that present the same concepts but in different reading levels or levels of complexity • curriculum compacting for some 		
Process –students making sense of new information	<ul style="list-style-type: none"> • simulations • interest centres • activity stations • brainstorming • cooperative learning/flexible grouping 	<ul style="list-style-type: none"> • think-pair-share • learning logs/journals • vary working alone and with others through flexible grouping • activity stations 	<ul style="list-style-type: none"> • direct instruction to small groups • questions vary by readiness • curriculum compacting/contracts • “scaffolding” for some • coop. learning/flexible grouping • advance organizers • open-ended assignments • supporting materials
Product –how students show what they know and can do	<ul style="list-style-type: none"> • personalized products • products that involve choice • tiered assignments • choice of performance mode 	<ul style="list-style-type: none"> • variety of ways for students to show what they’ve learned (i.e., drawing, acting out, constructing models, graphing) 	<ul style="list-style-type: none"> • open-ended assignments • tiered assignments • graduated rubrics

Oregon teacher Sherri Roberti helped create this matrix to aid others in differentiating lessons across the full spectrum of possibilities.

DIFFERENTIATING CONTENT TO REACH THE SAME TOP GOAL (BIG IDEA)

“Content is the ‘input’ of teaching and learning. It’s what we teach or what we want students to learn” (Tomlinson, 2001, p.72). The teacher’s challenge is to prepare the kinds of input that students are expected to be able to take up meaningfully and to find appropriately challenging.

Identifying the big idea

To be able to differentiate content, you need to understand what are the main or ‘**big ideas**’ in the curriculum you have for your class. Consider what are “the essential questions raised by this idea or topic” and “what, *specifically*, about the idea or topic you want students to come to understand” (Wiggins & McTighe, 2005, p.137). One can say that the big idea is the **top goal** of that specific part of the curriculum. For instance, what is the big idea in learning to read and write? Why do we learn to read and write? What couldn’t we do if we didn’t know how to read and write?

What came to your mind? Did you consider the possibility that the big idea behind literacy is **communicating through print**, or **getting the message from print**, or **giving messages through print**. If you thought of some other big idea, how does that relate to communicating through print?

Now think of what *specific* idea in literacy you want your students to learn in your lesson. Let us say it is about *understanding the sequence of events in a story*. Once you have identified such essential understandings, it will be much easier to ensure all students, from those who can only recognise a few single words to those who can read fluently, participate in the lesson: because it is communication through print, you can communicate the story through pictures (or a mixture of pictures and words) so all can be engaged in either ‘reading’ the pictures or the words; similarly, an exercise with separate pictures for those who cannot read words can be used at the same time as those who can read can sequence written sentences or pick the word that indicates sequence in the passage.

The use of big ideas as an organising framework for our teaching plans allows us to prepare materials that are adapted to the students’ different levels of understanding, skill or attitudes. Teachers often use a “shoot to the middle” approach aiming at a level that seems accessible to the majority of students. This one-size-fits-all approach,

however, creates a blockage to struggling learners as well as to students who exceed grade-level expectations. Teachers need to plan their lessons with different levels of readiness in mind. Lewis (1995) suggests the metaphor of the ladder:

One way of visualising the whole curriculum, including the curriculum for children with learning difficulties, is as a ladder in which broad steps are specified for all children. Within this ladder there are points at which, for some children and possibly for only some of the time, smaller intermediate rungs are needed. Like most analogies this ladder model has some weaknesses, such as an image of children's learning as necessarily hierarchical, clearly defined and sequential. However the ladder idea does emphasise the integration of curricula for all children, curricular progression and continuity. (Lewis, 1995, p.76)

One strategy for addressing multiple readiness levels in the same lesson has been the use of 'tiered' activities (or a close variation termed a 'layered' approach). Teachers can plan three levels of content complexity for a lesson, allowing for expected grade level work, below-grade level work, and above-grade level work. A very good illustration of this is Figure 5.2, where both children are taking a diving challenge, but from different heights and with different dive elaboration.



Figure 5.2: Different levels of diving: same core but different challenges

For examples of tiered lessons see http://ideanet.doe.state.in.us/exceptional/gt/tiered_curriculum/welcome.html

Inclusion note

When asking children to engage in different levels of complexity with a task, teachers need to be aware that children dislike doing work that is presented as appropriate for the less advanced learners. Such differentiated work needs to be presented in an inclusive climate. Consider the reflections made by two of the teachers we interviewed from the UK and Netherlands:

TEACHER FROM UK: *As children are more capable, more mature, more developed you ask them to do something that is more of a challenge but within the same activity format so in actual fact the children are not aware that they are doing anything different from anybody else.*

TEACHER FROM NETHERLANDS: *When the children that are on a lower level finish early (because of this pretended head start) they can start their special extra work in couples. I never wait until everybody is ready, but when about two thirds of the assignments are done I often start to discuss them. This way the slower children don't feel that they missed for instance the last 6 questions because they work slower, but because the teacher started to soon. The children don't doubt themselves this way.*

Adapting content to students' interests and ways of learning

Another way of adapting content to engage students is, as one teacher termed it, 'the way you present it'. For instance, concepts are often explained and illustrated through different examples and materials: the choice of examples and materials, of modes of presentation that appeal to the particular students one is teaching will make all the difference. The content must be appealing to both genders, to different cultures and home subcultures, and to different student experiences. The excerpt in Box 5.1, from an interview with a Maltese teacher who taught a boys-only 9-year-olds class, illustrates how a lesson that touches children's interests and allows for varied inputs can enhance children's participation:



Box 5.1

Using interesting content (Teacher from Malta)

I: Could you recall one lesson this year, when you said this really got most of them engaged?

T: Yes, a few weeks ago I was doing the Vikings, during a history lesson, because I teach history as well, and they knew so much about Vikings. Because we actually started these Vikings, I had children bringing models and books and cut-outs from papers or from the internet, so we ended up having a whole topic, we ended up having a whole theme dedicated to Vikings. So my classroom at the moment is full of Viking ships, Viking charts, costumes. It went into a project we're doing for the UNESCO, em ... So it, they were really engaged. And I could see that if they were artistically inclined, they had these drawings and boats etc; if they were more inclined to do research, we had loads of sheets of paper with research about the Vikings travelling; and then we went to the I.T. to get, we got hooked onto a really interactive program on the computer; so it was, yes, it was really a topic that went across the board for the children, and in which I had everybody's interest 100%.

I: So what was it? It allowed for...

T: Yes, basically it was all then very spontaneous because, as soon as the children knew we were talking about Vikings, they had heard me, they had seen me taking out some stuff that related, and like the next day I had all these things mushrooming: 'Miss I got you this book,' 'Miss I made this,' 'Miss I found this.'

I: It was something that interested them.

T: Yes. Most of the boys were interested in the Vikings. I mean, we ended up doing the Normans then, but I wanted to show them where the Normans came, the Normans in Malta, where they came from but like, but it was fine, it was fine; and we did activities, and drawings ... It was fantastic, and, yes, I had every, because everybody found his place and found a place to do something which was creative.

I: That was it, so it allowed for this

T: This is interest, this is the interest I was talking about, that you need to get to know the children and their interests, cause then one you can teach them anything. I would have thought that, well, Viking voyages would have been difficult you know, to teach the children where and how they travelled and what. But it's because they were interested, I could have taught them anything.

Like this was, it happened with Shakespeare plays. We were doing 'Tuned alive' in English comprehension, and we had this one of the comprehensions which was about the theatres. And one of our boys who visits England quite often, because he's got a medical problem and visits most of these theatres, was full of models, had models and books, and he brought them over. So seeing something physically in front of them and that they could see and touch, I mean the children wanted to sit in class to watch Macbeth, during mid-day break, because we were doing the witches and how witches went into Shakespearean plays, and like: Can you imagine Year 5 boys reading Shakespeare? But it's because we had this theatre, the globe theatre model, and we had ... and because they watched the video and they, the light affects ... We went up to the hall, to act out this witches and the caldron, and they made up their own, eh, what do you call it, the caldron, theanyway, em... so the children were really, they ended up asking me to watch Macbeth during break. I mean, they couldn't actually understand the language probably, but the fact that they were watching it was already attracting their attention, and probably when they go to senior school and they have (to study) Shakespeare, they would look at Shakespeare in a different way. Just thinking a little...

I: Ehe, ehe, so you see the topic and the activity related to it.

T: Related, I mean, the choice of the activity, and the way you present, that's ... I, that's what I believe. I believe you can teach children anything. It only depends on the way you present it.

LEARNING PROCESS 1:

USING DIRECT INSTRUCTION AND INDEPENDENT LEARNING TIME

The aim of this section is to reflect upon the concept of direct instruction to create more time and possibilities for independent learning so the teacher can reach out to more children.

What is the learning process?

Given your knowledge of the important understandings you want your students to grasp, you can plan the differentiation of **process**, or how students are going to learn them and how they can be taught. The learning **process** refers to any 'sense-making activity' through which a student is helped to progress from a current point of understanding or skill to a higher level of such understanding or skill (Tomlinson, 2001).

In order to differentiate process, it is useful to become familiar and comfortable with a wide range of instructional strategies (see extract from Tomlinson above, Table 5.2, Gregory & Kuzmich, 2005,



Computers raise a great interest in young children

Computers can allow
for independent
learning



and **Farrugia, 2003**). “Teachers are particularly limited when the sole or primary instructional strategy is teacher-centred (such as lecture), or drill-and-practice (such as worksheets)” (Tomlinson & Demirsky Allan, 2000, p.11). However, “it’s crucial to remember that it’s the quality of what students do that is most important” (Tomlinson, 2001).

Rationale of direct instruction in the context of inclusive education

Direct instruction has been used particularly in teaching basic knowledge and basic skills. It contrasts with the constructivist approach as it involves a lot of teacher-directed rather than discovery learning. But it is useful as a model for teaching in situations where a theme or subject is started with all pupils, whereas later it can be used for direct instruction with pupils that need extra help on the subject, and it is also a mode of learning that some students prefer. It might also be useful in pre-teaching situations, such as for children

with language or other delays that need an extra introduction of the subject. Effective instruction implies that children know why, how and what to do in individual and in group learning situations.

Models of direct instruction have been developed since 1960-1970, when behaviourism and emerging cognitive psychology were the leading theories considering the practice of education.

Behaviourism considered especially motivational aspects in teaching strategies, such as providing positive and negative reinforcement to stimulate learning processes. Learning is considered as changing behaviour through reward and punishment. In direct instruction, behaviourists point out the importance of direct feedback processes.

Cognitive psychology develops models on how people receive, store and retrieve knowledge in long and short term memory structures, and how people relate new knowledge to existing structures of knowledge. In direct instruction, cognitive psychologists point out the importance of sharing the learning goal with the students, task analysing new learning and adapting it to the level reached by the student, using error analysis to tune the levels of understanding and support required.

Direct instruction that focuses on motivation and on metacognitive skills is very commonly used in classrooms. The effectiveness of instruction depends highly on its quality.

Practice of direct instruction

Direct instruction works when:

1. pupils know and share the goals they have to achieve in the instruction
2. pupils know what to expect from the teacher and what the teacher expects from them
3. pupils have the opportunity to exercise with the learning strategies offered by the teacher
4. both pupils and teacher can control the effectiveness of what has been learned
5. pupils are challenged to find their own way of storing new knowledge and exercising new skills.

Therefore direct instruction needs a short and clear introduction with information about the goals of the lesson, the connection with earlier derived knowledge, the organization of the lesson (time schedule, materials), the behaviour of the teacher and the expected behaviour of the pupils. From that point, teachers can start to introduce the subject or skill that is to be learned in that specific situation.

During the instruction most emphasis is put on the main principles or strategy, which is structured in small episodes. The teacher provides simple examples and repeats short abstracts. In asking questions that are directly related to what has been offered during the lessons, the teacher keeps the children highly involved and creates opportunities for giving correct answers. Self-confidence is created and pupils are encouraged to take the challenges offered by the teacher's questions and the following task where new knowledge and skills can be proven.

To find out whether most pupils are ready to work independently, basic principles have to be exercised together first. Pupils are encouraged to reflect whether they have had sufficient information and exercise to work on the task without help.

After the instruction, there is some time to work individually on the task. The teacher provides an organization of the lesson in which there is enough silence, time and sources of help to create effective learning time for all pupils. Direct feed-back is necessary to stimulate positive learning experiences.

After each part, the teacher shortly evaluates and reflects with the children as a group and individually.

This first part shortly revised the main ideas behind, and principles of, effective instruction as a start of learning situations where pupils are encouraged to work independently on a task. This can be seen in both individual teaching situations or situations in which the whole group or a part of the group is included. In the next session, we will address instructions for organising activities like Circuit lessons, theme work and independent working

Creating independent learning time

Effective instruction implies that due importance is given to organise independent learning situations in a way that all children



Independent working time allows the teacher to give individual support without keeping the other students waiting: an example from a Swedish classroom

can do the job they are expected to do. This might be the case during working in groups on several subjects, in different places, in a diversity of tasks and all other situations where the teacher is not available or even nearby for instructions during work. When you create time and opportunities to work on tasks or activities that children can choose,



An example from a Lithuanian classroom

Box 5.2

Direct instruction and independent learning time in a Montessori school in Holland

As we work with heterogeneous groups with children from 3 grades in one class, there is a very natural situation that has a lot of advantages. Children are used to be different at several levels and are encouraged to help other children. A child can be excellent at certain mathematic tasks, but needs help with simple grammar tasks. Children within the Montessori system share a learning environment where every child works at his or her own task, in his or her own way. They hardly work on one subject together at any time, which makes it practically impossible to make comparisons that might discourage weaker learners. Children are responsible for their own learning process and are highly free in planning their work. The emphasis is on the challenge to learn instead of some kind of judgement by the teacher.

Crucial however, is the organisation of working time and the planning and conducting of effective instruction. For us the goal of instruction is always the main goal of our teaching practices “Teach me how to do it myself” which means that we focus on the intention and the competences of a child to learn independently with just sufficient cues and information to perform on the task independently.

Direct instruction in Montessori schools also means that we work with two important principles considering material and instruction. One is “isolation of quality” which considers that during instruction we focus on the one main goal and keep our instructions and interactions with the child on that most important quality. Another important principle that Maria Montessori introduced in our instruction is “Let your words be counted” meaning that in instruction you should be as concrete and clear as possible in just as many words as needed. I think that these principles help children of any level of functioning to be more prepared to conduct the task.

As Montessori has developed materials from the vision of Piaget, a lot of concrete materials are in the school that can help children that need the concrete support to come to more abstract operations. The fact that they can also choose to participate in, for example, art activities at a moment they plan them, makes it possible for them to be aware of their own management of energy.

a clear organisation, rules and instruction about these rules and organisation is crucial (see example in Box 5.2 and 5.3).

When it comes to organize working independently on tasks, children need instruction on what, how and why. Instructions should include clear information on the following:

Box 5.3

Direct instruction and independent learning time in a Dalton school in Holland

Working with tasks is an important aspect of working in a Dalton school. Children need to be aware of their own strengths and how to use them. They need to know how they can have access to information instead of storing that information automatically. Therefore in our school every teacher focuses on helping children to work independently. It is important to have your classroom management organized in a way that can be found in all classes. Every teacher should use the same basic rules concerning the independent working time.

In our classroom we work with a traffic light and with little cards on the table of the child and the teacher.

The traffic light is used by the teacher indicating that children are supposed to work in total silence (red light), children are allowed to deliberate on the tasks and to help each other as silently as possible (orange light), or children are allowed to deliberate freely (green light). A good instruction and organisation is needed to have this work out in the classroom. While the children are working, the teacher can be available for help (green card on her desk) or she can be unavailable because she is teaching a small instruction group (red card on her desk).

Small cards on the table of the children can indicate that they need help (question-mark), or that they do not want to be disturbed by others (red card), or that they are available for other children to help them (green card).

I must say that it takes some time to organise everything this way. But it does work!!! Although some children find it difficult to make the right decisions about when they need help. I really have to work with some of them to become more self-confident and less dependent...

- organisation in time and space
- goals
- time limits
- expected products
- availability of teacher
- availability of peer tutors
- availability of materials needed
- silence during work
- work that can be done when children have finished their job etc.

LEARNING PROCESS 2:

ORGANIZING COLLABORATIVE LEARNING

The aim of this section is to help you reflect further on differentiating the learning process through a collaborative and supportive learning climate and cooperative learning.

Creating a collaborative and supportive climate in the classroom

Differentiated teaching on its own may not lead to supportive relationships. Indeed, without the right supportive and inclusive climate, it may lead to more divisions among students. You may be familiar with a situation where students refuse to do different work because they want to be seen as doing the same things as their peers. Inclusive teachers are sensitive to this. They create a climate where it is normal to do different work.



Group work engages most children

Avoiding the use of difference for devaluing

TEACHER FROM MALTA: *My library is graded, that is there are some books which are very easy and some that are very difficult. ...*

But I don't make an issue of it if a girl that can read a lot has taken a book that is easy, I don't tell her, "No, that is not good for you because it is too easy ..." I know this girl reads a lot anyway. But I don't pinpoint it, because of the others, so the others won't be led to think, "Eh, so this is an easy book, so I will not take it because it will show me up as one who takes the easy books only"...

There's no need for me to tell him, "This is good for you," because he will realize that I am always giving him books that are easier than those read, for instance, by the one near him, and it makes - it hurts them.

You need to create recognition and acceptance of difference as an enrichment for the class. A very good practical account of how you can create a supportive, collaborative climate among your students and organise collaborative learning is given by **Sapon-Shevin (1990)**.

Create inclusive signals

Teachers can create acceptance or rejection of difference in their classroom through exclusive or inclusive signals in their language, displays and classroom organisation. Consider the following teacher signals (adapted from Bunch, 1999):

1. *Eliminate competitive classroom symbols and make use of inclusive displays*

- **Take down the star charts on the walls and any other visual displays of who is doing well and who is not.** Do not read student scores aloud, return papers in order of score, or write classroom averages on the blackboard. If an outside visitor to the classroom can look around and see who is doing well and who is not by looking at the board, the walls, or the seating arrangement, then the classroom atmosphere exemplifies competition.
- **Display the work of all students not just the work of those who produce what is considered the best.** Create bulletin boards that include the work of all children rather than posting the "five best compositions or drawings." A third grade teacher



Display work
by all students
(Lithuania)



created an elaborate underwater scene on one wall, with each child's contribution visible—fish, seaweed, skin divers, and so forth. Although there were differences in the complexity of the drawings the children had done, the overall message was one of inclusion, each child's addition improving the quality of the display. Class murals, displays in which every child adds his or her contribution, class books and reading material, and other such projects all create a sense of community and belonging with each child viewed as a contributing member of the group.

2. Use inclusive language

- **Refer to students as “students/class/” or “kids/” rather than as “boys and girls” or by reference to specific groups.** Avoid the commonly advised behaviour management strategies in which the teacher calls attention to the exemplary behaviour of a single child or a group or explicitly or implicitly compares groups (i.e., “Let's see which row can get quiet fastest,” “I like the way Mark and Kevin are raising their hands,” or “The red group can go to lunch first today because they're all listening”). Instead, encourage group achievement or group solidarity by using language such as, “We can go outside when we all have the room straightened up” (and then encourage helping and cooperating) or, “I'm so impressed by all of the reading I saw

this morning!” If a particular child or a small group of children present unique problems, seek to engage the entire class in problem solving in an inclusive way; for example, “What can we do about making sure that all the papers get turned in after morning work?” Students should be encouraged to see that they have an important role to play in supporting their peers to be contributing and productive class members.

3. Organise the classroom to promote equal valuing of diverse students

- **The seating plan can marginalize students or it can be designed to make them a part of the group.** Often students with challenges, particularly those with high levels of challenge, are seated on the fringes of the classroom for convenience of getting to them easily to offer assistance, or due to the specialized equipment they may need. Inclusion may call for a little inconvenience and creative thought when determining who sits where.
- **Involve students in keeping the classroom running:** collecting books, putting things away, running messages, passing out papers. Ensure that all students share these responsibilities. Sometimes, however, certain students are excluded from specific responsibilities due to the nature of some challenging condition. For instance, a student who is known to “take off” at times, may not be included in running messages to the office or other parts of the school. Could there be a way to handle this situation so that all students are involved over time? If you are stuck, ask the students how to include the one you think may encounter difficulty in handling the task.

Organize flexible grouping

There is a tendency for teachers to group children into ability or readiness groups. There is a place for this, but the grouping must be flexible to allow students not to identify themselves by ability but by their multiple facets. Tomlinson (2003, pp.84-5) writes:

Use Small Group Instruction as a Regular Part of Instructional Cycles. Because students vary greatly in readiness at any given point in an instruction cycle, it is critical during a unit to find a way to teach to a learner’s need rather than only to an imaginary whole-class readiness.

The principle of flexible grouping (that is, students consistently working in a variety of groups based on readiness, interest, and learning profile, and both homogeneous and heterogeneous in regard to those three elements) is central to the concept of defensible differentiation. It is important to students to see themselves in a variety of contexts, and important for the teacher to observe a student at work in different settings.

One part of flexible grouping in most classrooms should be the use of similar readiness instructional groups that change frequently as the focus of instruction changes. Although this is only one facet of flexible grouping, it is important to ensure appropriate challenge and support on an ongoing basis for each learner (for example, see Schumm, Moody, & Vaughn, 2000). Using readiness-based instructional groups is also very beneficial to students with learning disabilities, students learning English for the first time, advanced learners, and a wide spectrum of other students. It is also critical that teachers of older students use small group instruction to help teach the fundamental skills of literacy and numeracy if those students have not learned them appropriately in earlier grades.



Small group instruction can take many forms

Peer-mediated learning

One of the difficulties for responding to individual learning strengths and needs of students is the limitation of teacher time. This becomes more limited when all teaching is teacher directed. One of the ways in which the teacher can increase individual support time for students is by actually making use of the students themselves as teaching resources through peer-tutoring arrangements. This is best described by Sapon-Shevin as “Encouraging Students to Use One Another as Resources”:

Encourage Students to Use One Another as Resources

Teachers can create multiple opportunities for students to see each other as sources of information, instruction, and support. One teacher arranges her students’ desks in clusters and sets a rule: if anyone in the group has a problem of any sort, they must consult with their group before coming to the teacher for help. The number of questions that the teacher must field is reduced considerably, but, more importantly, all class members get to explain, comfort, and act as mini-teachers and committed friends. Additionally, a Classroom Yellow Pages can be developed to include lists of individual students and their skills/talents, and then the class can be encouraged to turn to those people as resources.

Another opportunity for students to use one another as resources is to implement peer teaching at many levels. Study partners (two students assigned to work together) are a simple way to begin. The teacher should also think of other students as resources. During a crafts project, one fourth grade teacher used a recess period to teach the craft project to six students, and the next day, these students were the resident teachers/experts for all the other students at their table. Another teacher, of first graders, got a new record player for her room and was anxious for all the students to learn how to use it properly. Rather than holding a large group lesson, she chose one student and taught him the correct terms (tone arm, spindle, turntable) and utilization of the record player. After she had checked him off on a skills list, he was asked to teach two other students, who then each taught two more until the entire class had received personalized instruction and been checked-off on the skills list.

More information on the theoretical background of peer-mediated learning as well as strategies for its organisation may be found in Hall & Stegila (2003).

Promoting cooperative learning

Cooperative learning is important for three major reasons in responding to diversity:

- First of all, some students prefer to learn in interaction with peers rather than on their own.
- Secondly, there is evidence that children can develop higher order thinking through focussed peer interaction.
- Thirdly, group work has been found to be most useful by teachers in differentiating content and process of teaching to different groups of children in their class, and also gives teachers more time for individualising support as the rest of the students are engaged in learning in interaction with each other while the teacher is supporting other groups or individuals.



Group work can take many forms

How to ensure successful cooperative learning

Successful cooperative learning does not happen. It has to be specifically prepared for in two ways:

- First of all you have to think of different ways in which to create the conditions for cooperation in learning to occur in the classroom, as shown in the previous section.
- Secondly, as an important part of those conditions, you have to teach students the social skills needed to engage successfully in cooperative learning.

a. Conditions for cooperative learning

The following five conditions have for long been identified by Johnson and Johnson (e.g. 1994) as necessary for cooperative efforts to be more productive than competitive and individualistic efforts:

1. Clearly perceived positive interdependence
2. Considerable promotive (face-to-face) interaction
3. Clearly perceived individual accountability and personal responsibility to achieve the group's goals
4. Frequent use of the relevant interpersonal and small-group skills
5. Frequent and regular group processing of current functioning to improve the group's future effectiveness

All healthy cooperative relationships have these five basic elements present. This is true of peer tutoring, partner learning, peer mediation, adult work groups, families, and other cooperative relationships.

b. Teaching cooperative skills

As indicated in condition 4 above, before expecting students to work and learn together cooperatively, students need to be taught first the skills for interpersonal communication. Rather than assuming that students come to school able to listen, praise, compromise, and negotiate conflict, the teacher must take as his or her responsibility the establishment and improvement of students' interpersonal behavioural skills, providing careful, systematic instruction and feedback for those behaviours necessary for smooth group functioning.

Johnson & Johnson (1999) describe five steps used to teach students cooperative skills:

- **Step 1.** Make sure students understand the need for the teamwork skill.
- **Step 2.** Make sure the students understand what the cooperative learning skill is, how, and when to use the skill.
- **Step 3.** Set up practice situations and encourage skill mastery. The teacher guides practice as students master the skill through repetition.
- **Step 4.** Give students feedback on their use of the skill. Help them reflect on how to engage in the skill more effectively in the future.
- **Step 5.** Make sure students practice the cooperative learning skill until it becomes automatic.

Role play is one of the ways in which students may be directly instructed on particular social skills. You may have already read the following extract from Sapon-Shevin (1990) on how a social skills teaching episode might be organised:

Practicing cooperative social skills

Divide the class into small groups and give students a card assigning them to various roles within the group; one student might be given the role of observer, one the role of leader, one the role of checker, and one the role of praiser. Explain and role model these roles if necessary before group starts working on the task. Give students a task which they have to perform together, such as a problem which the group has to solve together. Once the task has been resolved, students rotate their roles so that, in time, all students have gotten the opportunity to practice the different roles. Ask first the members how they felt in their respective roles and then ask the observer to provide feedback concerning the extent to which members engaged in such behaviours as listening to each other, praising one another, asking questions, clarifying others' statements, giving direction to the group, and so on. You may also intervene as necessary, giving your own feedback on how the groups were functioning. Process in big group how each member and role contributed to the solution of the problem, what difficulties were encountered, what could have been done better, what skills need to be further developed

for the group to function more effectively. Ensure all members are given the opportunity to share their feelings and thoughts. Finally conclude by briefly underlining the skills necessary to work cooperatively in groups as practiced during the activity.

You can teach roles to pupils through role modelling and then reverse roles with pupils teaching you the skill. Give constructive feedback as required. Ask pupils to provide their support under your facilitation and supervision which is gradually weaned out. Arrange regular talks with the tutors, remember to praise them, answer any questions they have, discuss any problems they are having and give them constructive suggestions for future sessions.

LEARNING PRODUCT 1: ASSESSMENT FOR LEARNING

This section is aimed at raising awareness about the different ways in which we can help or hinder learning through the way we assess student achievement.

Learning products

Thinking deeply and creatively about learning products is important because this will have a wide impact on the students' long term learning outcomes, some products remaining with the students as a symbol of their learning and capacity for learning. Products of learning include the taking of tests, but go much beyond in helping students to extend and apply their learning. When students are ready to invest in their product, this becomes a major motivator for learning, as this Swedish teacher reported:

TEACHER FROM SWEDEN: *They are very, very motivated when it comes to the thematic tasks, when they have been helping planning it. I think so, and then there is an enormous motivation. Before the holiday, we put up a play about the Stone Age, they wrote their own script, they produced plays in groups, and then all the children are very motivated I think.*

Your task is to determine the variety of possible products through which the students will demonstrate their learning. You can use Table 2 as a guide (reproduced from Tomlinson, 2001), which gives a very concise but wide consideration of the issues of creating high-quality



Table 5.3
Creating a powerful product assignment

<p>1. Identify the essentials of the unit/study:</p> <p>What students must</p> <ul style="list-style-type: none"> • know (facts) • understand (concepts, generalizations) • be able to do (skills) as a result of the unit/study. 	<p>4. Decide on scaffolding you may need to build in order to promote success:</p> <ul style="list-style-type: none"> • brainstorming for ideas • developing rubrics/criteria for success • time lines • planning/goal setting • storyboarding • critiquing • revising/editing
<p>2. Identify one or more formats or “packaging options” for the product:</p> <ul style="list-style-type: none"> • required (e.g., poetry, an experiment, graphing, charting) • hook - using an interesting activity as a lure to the subject • exploratory • talent/passion driven 	<p>5. Develop a product assignment that clearly says to the student:</p> <ul style="list-style-type: none"> • You should show you understand and can do these things • Proceeding through these steps/stages • In this format • At this level of quality.
<p>3. Determine expectations for quality in:</p> <ul style="list-style-type: none"> • content (information, ideas, concepts, materials) • process (planning, goal-setting, defence of view-point, research, editing) • product (size, construction, durability, expert-level expectations, parts) 	<p>6. Differentiate or modify versions of the assignment based on:</p> <ul style="list-style-type: none"> • student readiness • student interest • student learning profile
<p>7. Coach for success.</p> <p>It is the teacher's job to make explicit whatever you thought was implicit</p>	

Reproduced from Tomlinson (2001), p. 87.

and powerful product assignments, a wide variety of product possibilities, differentiating products for struggling and for advanced learners.

Important impact of assessment on learners

Assessment can be a frightening experience since it can lead to failure, labelling and limit one's career and life chances. On the other

Box 5.4

The Story of Jenny

(Weeden, Winter & Broadfoot, 2002, p. 6).

I notice the pain and anguish that my daughter, aged 7, is currently going through as she realises, much earlier than I did, how assessment goalposts can change. I think that my early and continued academic successes shield me from some of the social realities that she has come to terms with much earlier in her life. Jenny is bright and thoughtful and a good reader (phew!). Unluckily she has some specific writing difficulties, partly because she genuinely doesn't care about how things are spelt and partly because she has enormous difficulty writing quickly and legibly. She is young for her age and my vision is that this will develop. Although she is off the scales on the reading and mental maths stakes, her teachers this year have put her in the 'dull brains' group, because she never finishes her work and it is often illegible. She is humiliated.

Throughout infants school she was an achiever. She took part in plays, played the violin and the piano, was given certificates and awards for art, for being a good friend, for being a good musician, for helping catalogue the library, etc. She even got a certificate in assembly for holding a *Blue Peter* bring-and-buy sale and she felt successful. Now she feels a failure. The goalposts have changed and she can only get a smiley face on her chart for two things – spelling and times tables tests. If the whole family busts a gut for a week she sometimes gets all her spellings right, but only once has there been a smiley face for maths. She writes it down wrong or too slowly.

Jenny has entered sullen adolescence overnight and partly I feel distraught for her, but listening to her work out the ludicrousness of the test culture and the boring and unadventurous place her school has become for her I also wonder if she has made an important discovery that will stand her in good stead. She knows she is still good at the things that used to be valued, she also knows that they are not important any more to school but that they are very important to us. As she recently pointed out to her intractably naïve mother, "It doesn't matter about understanding things in the juniors, as long as we get them right. I mean there's no time to go into understanding stuff. That all takes ages and you have to have a go. In the juniors there's a lot less having a go and a lot more getting told things".

hand assessment is an important part of education and if used well can encourage and help students learn.

It is therefore worth considering carefully the consequences of our assessment practices and what effect they have on students. In Box 5.4, a mother tells us the story of her daughter Jenny's experience of testing in school (Weeden, Winter, & Broadfoot, 2002). Read and reflect on it.

Defining assessment

A common image evoked by the word assessment is that of a paper-and-pencil test, an examination room lined with rows of desks and students sweating over an examination paper. Examinations, however, are only one type of assessment which typically consists of fixed questions administered during a fixed period of time under reasonably comparable conditions for all students. Assessment comprises a wide range of methods for evaluating student performance and attainment including formal testing and examinations, practical and oral assessment, classroom based assessment carried out by teachers and portfolios. Assessment is an integral part of the teaching and learning process, it can serve many purposes and has an effect on students, learning and curriculum. (Gipps, 1994, p.1)

Purposes of assessment

Six main purposes of assessment may be identified (Gipps & Stobart, 1993, p. 15):

- **Screening** to identify individuals who are in need of special help.
- **Diagnosis** to identify the individual students' strengths and weaknesses and usually takes place after screening.
- **Record keeping** to provide information for others regarding the progress and achievement of students.
- **Feedback** to the student and teacher regarding the student's progress, and to the teacher regarding the success of the teaching in order to change and adapt according to the needs of the students.
- **Certification** to provide a student with qualification which signifies that he or she has reached a certain level of competence or knowledge. The assessment is the means by which we ascertain that a level has been reached and the qualification is often represented by a certificate.
- **Selection** to different institutions for further education or for employment.

These purposes can be further grouped into **formative** and **summative** assessment (Weeden et al, 2002):

Formative: *An assessment that helps pupils learn; results in actions that are successful in closing the gap between current and expected performance.*

Summative: *An assessment that is used to certify or record end-of-course performance or predict potential future attainment; the final product of a unit or course; an examination grade.*

There has been much debate about how much assessment in schools can serve both formative and summative functions. Black (1998, p. 35), however, argues that “the formative and summative labels describe two ends of a spectrum of practice in school-based assessment rather than two isolated and completely different functions”. If we want to enhance students’ learning we need to find ways in which the formative and summative aspects of assessment are used together for the benefit of learning (Wiliam, 2000).

A traditional model of assessment

Traditionally examinations have exerted a powerful influence on educational practices. Examinations originated in China in order to wipe out nepotism and bribery (Nuttall, 1975) and continued to develop in the industrial revolution to increase access into education (Gipps & Stobart, 1993). Examinations were also highly influenced by intelligence theories and the belief that intelligence was something that was fixed and could be measured. This meant that individuals could be classified into groups or streams and scores obtained in examinations could be interpreted according to norms or standards and hence individuals could be compared to one another (Gipps, 1994).

New ideas about intelligence and learning have led to grave concerns about the impact of examinations. The work of Gardner (1999) on multiples intelligences suggests that the idea that intelligence is a single fixed entity which can be measured is no longer valid (see Chapter 4). Formal testing focuses mainly on language and logical-mathematical analysis and does not take into consideration any of the other intelligences. Moreover, learning is influenced by context and thus the language, culture and social context presented in traditional forms of assessment may advantage one group over

another and result in classification of students which is not realistic or representative of the actual abilities of students (Black, 1999).

Research shows that the learner constructs his or her own knowledge based on prior experience and understanding and that the role of the teacher is to provide the *scaffold* which helps the learner construct the knowledge (see Chapter 4). Assessment in this inclusive framework would then aim to support the learners identify their progress in bridging the gap between what they knew and what they did not know. Thus, assessment would support students' learning rather than pass judgement on them.

Box 5.5 indicates some of the concerns about assessment as expressed by students themselves. It also shows some views of teachers who still feel that examinations are the fairest way of assessing students.

Box 5.5

Teachers' and Students' views of examinations and testing

Teachers' views:

T 1: *Although examinations create a certain amount of stress, yet they remain the fairest form of assessment...*

T 2: *...although we give a lot of importance to course work we feel that students work harder for exams...*

Students' views:

S 1: *...you study for the exam and then you forget everything...because no one remembers...a lot of subjects you study for the exam for example my brother when I go and ask him something about physics he tells me...I've forgotten everything...everyone forgets everything...*

S 2: *But can students like us go to University?...I'm not clever...the exam tells me...I only get five or six...*

S 3: *Because you find some people they have a lot of A'levels and O'Levels and they do not know how to use them because I say that to work it's not intelligence that counts but wisdom and wisdom comes from your own experience...*

S 4: *From these results my whole life and career depended. Is it right to give all this importance to a few questions gathered together to form an examination! I don't think so...I got a good grade and I was satisfied but what if this wasn't so? What if I had not passed? Would I have remained the same person?*

S 5: *So that it doesn't all depend on the exam because maybe on that day something happens to you...you can get excited and you spoil the work of a whole year...when you do something and you enjoy it you learn much more than when you are studying for the exam...*

While teachers seem to rely a great deal on examinations for the assessment of students, the students themselves are indicating that they would like to have other forms of assessment as examinations are very high stakes based on a very brief and limited output. Research has shown that examinations can have a number of adverse effects. They can cause labelling of students (Gipps & Stobart, 1993); teaching to the test (Madaus, 1988); shallow learning (Gipps, 1994) as well as not giving a true picture of what students have been able to learn (Broadfoot, 1992).

A new model of assessment

A new model of educational assessment is based on four main principles:

- Assessment does not stand outside teaching and learning but stands in dynamic interaction with it.
- The assessment has a constructive focus where the aim is to help rather than sentence the learner.
- The emphasis is on the learner's achievements to him or herself rather than to others or in relation to defined criteria.
- The assessment is based on a pedagogy that promotes deep learning and assesses learners holistically.

There is a shift

From: Assessment of Learning (for the purposes of grading and reporting with its own established procedures).

To: Assessment for Learning (assessment whose purpose is to enable students through effective feedback to fully understand their own learning and the goals they are aiming for (Elwood & Klenowski, 2002).

Assessment which focuses on student learning depends on:

- The provision of effective feedback to students.
- The active involvement of students in their own learning.
- Adjusting teaching to take account of the results of assessment.
- A recognition of the profound influence assessment has on the motivation and self-esteem of students, both of which are crucial influences on learning.
- The need for students to assess themselves and understand how to improve (Assessment Reform Group, 1999, p. 4).

Box 5.6

Characteristics of assessment linked to teaching and learning

(Chetcuti & Grima, 2001)

More holistic learning set in a context

Teaching should take place in a context which is relevant to the lives of students and examples from their own experience made use of.

Constant qualitative feedback

Comments are given to students regarding their work and this encourages and motivates them to learn about their strengths and weaknesses and ways in which they can improve.

Using multiple forms of assessment

There are many ways in which students can be assessed. Students have multiple intelligences and giving different assessment tasks allows them to perform well in the areas they are good in.

Clear guidelines and criteria

Once the students know what is expected of them it is easy for them to work towards a specific goal. Assessment criteria should be given so that students know on what they are being given a mark or a grade.

Involvement of both teachers and students

Teachers and students can work collaboratively in deciding what ways the students want to be assessed, grades can be negotiated and marks allotted for different pieces of work. This gives students more ownership.

Valuing difference

Students are all different individuals. If they are allowed to work on different assignments and different tasks according to ability and interests they will be able to give their very best. Students should be given credit for anything positive they manage to do.

Focusing on positive achievement

If we give students credit for what they have achieved rather than for what they have not achieved they can build on their own successes.

Work with exemplars

Work with examples of students' work in order to identify good work and allow students to develop their own interpretations of what is good work and what is the standard that should be reached.

Formative Assessment

An assessment activity can help learning if it provides information to be used as feedback by teachers, and by their students in assessing themselves and each other, to modify the teaching and learning activities in which they are engaged. Such assessment becomes *formative assessment* when the evidence is used to adapt the teaching work to meet the learning needs (Black, et al, 2003).

Formative assessment is distinguished from **summative assessment** because it is student-referenced in relation to learning objectives. Summative, criterion-referenced assessment considers how well a student has achieved in relation to the learning objectives (standards) alone not in terms of their individual progression i.e. where they have come from (ipsative).

Research shows that formative assessment enhances performance on both traditional and alternative assessment measures. The move towards formative assessment requires a shift for both teachers and students from norm-referenced to criterion-referenced ways of thinking and to ways which value the improvement of learners.

Assessment for learning:

- Is embedded in a view of teaching and learning of which it is an essential part.
- Involves sharing learning goals/intentions with students.
- Aims to help students know and recognise the standards for which they are aiming (Department of Education and Training, 2003).

Effective Formative Assessment

In order to ensure that formative assessment is being carried out effectively we need to make sure that we are:

- Clarifying learning outcomes at the planning stage.
- Sharing learning outcomes at the beginning of the lesson.
- Involving students in self-assessment.
- Focusing oral and written feedback around the learning outcomes.
- Organising individual goal setting.
- Using rich questions that challenge and guide the next learning steps.

Formative assessment focuses on the **process** of learning and makes individuals' learning journeys transparent to them. It involves:

- *Assessment to motivate learning* by giving a sense of success through a sense of self-efficacy as a learner.
- *Assessment to help learners and teachers plan learning* by making explicit what is important to learn and by identifying for learners their prior learning and linking it to present learning and providing feedback about progress.
- *Assessment to help learners learn how to learn* by fostering self-regulation skills and developing meta-cognitive awareness.
- *Assessment to enable learners to judge the effectiveness of their own learning* by evaluating existing learning, consolidating new learning, and by reinforcing new learning.

How can we actually assess students in a formative way?

Despite all our efforts most of the times students place more value on our summative evaluations than on our attempts to help them improve. We need to help them shift their ways of viewing assessment.



Group products can enhance learning in different ways

We need to focus on four aspects:

- a. Quality of questions.
- b. Quality of feedback.
- c. Sharing of criteria with learners.
- d. Peer and self-assessment.

a. Quality of questions

Questioning is one of the main methods of formative assessment. For formative purposes the questions asked have to provide insights into students' knowledge. If questioning is to establish students' meanings and understandings then when we question students in the classroom, there is no wrong response, students can simply answer "I don't know" and that is acceptable for the teacher. Questions asked need to be directed at students and all responses should be accepted, though clarification is then made and students led to alternative responses by the teachers. Students also need to be given time to think out answers and teachers need to increase the waiting time for responses. The teacher can ask a number of closed or open questions.

Closed questions are used to:

- recall information;
- give on the spot solutions e.g. applications of a known rule to view variables;
- encourage analysis by comparing or classifying.

Open questions are used to:

- explore information and ideas e.g. reasoning/interpreting, hypothesising, speculating, imagining, inventing;
- encourage synthesis of information and ideas by focusing on contradictions, discrepancies, different sources of evidence;
- encourage evaluation;
- encourage the transfer of ideas and application of knowledge.

Questioning can be improved through:

- More effort has to be spent in framing questions that are worth asking, questions that are critical to the development of students' understanding.

- Wait time has to be increased several seconds to allow students to think. All answers right and wrong are used to develop understanding.
- Follow-up activities have to be rich in that they provide opportunities to ensure that meaningful interventions that extend the students' understanding. (Black et al., 2003)

b. Quality of feedback

Giving effective feedback is one of the most important ways in which a teacher can focus on the specific learning needs of each student. It provides information that informs the learner about the steps needed to achieve desired performance and to close the gap between current and desired performance.

Butler (1998) carried out a study on the type of feedback that students received on their written work. In a controlled experimental study, she set up three different ways of feedback to learners – marks, comments and a combination of marks and comments. The latter is the method which most teachers provide feedback to their learners. The study showed that the learning gains were greatest for the group given only comments, with the other two treatments showing no gains. This study sparked debate and discussion among teachers and Black et al (2003) report that teachers considered why this was happening and came to the conclusion that students rarely read comments, preferring to compare marks with peers; that teachers rarely give students time in class to read comments that are written on work and few students look at these comments at home; that comments are brief and not specific; and that the same written comments recur in a student's book indicating that the students do not act on the comments.

According to Black et al. (2003, p. 44) the clear comments which students give to teachers regarding feedback is:

- to not use red pen because students felt that it ruined their work;
- to write legibly so that the comments could be read;
- to write statements that could be understood.

Feedback is effective when:

- It is clearly linked to learning intentions.
- The learner understands the success criteria/standards.

- It focuses on the TASK rather than the learner (self/ego).
- It challenges, requires action and is achievable.

When used to improve learning the feedback should be based on the following ideas:

- Written tasks alongside oral questioning, should encourage students to develop and show understanding of key features of what they have learnt.
- Comments should identify what has been done well and what still needs improvement, and give guidance on how to make that improvement.
- Opportunities for students to follow up comments should be planned as part of the overall learning process.

Feedback should be SMART:

S	Specific	Specific targets relate to a defined area of competence.
M	Measurable	Measurable targets which students can understand.
A	Achievable	Achievable targets which students can achieve.
R	Realistic	Targets are related to the context and standards.
T	Time-related	Clear dates for review and monitoring.

High quality feedback focuses on identifying the gap between actual and desired levels of performance providing teachers and learners with information to close the gap. The feedback is set against relevant assessment criteria. It is detailed and constructive, providing students with information about what they are doing well, suggestions for how they might improve their work and specific guidance on where corrections are needed and how to make them. Constructive feedback focuses firmly on the task at hand and not about the students themselves. It is important to provide the feedback as promptly as possible (Brooks, 2002).

Feedback can be given to students orally or in written format. Feedback sheets can also be prepared so that the teacher can simply tick or mark acquired competencies against pre-determined criteria. Criteria for the task can be developed together with the students.

c. Sharing of criteria with learners

The criteria for evaluating any learning achievements must be made transparent to students to enable them to have a clear overview both of the aims of their work and of what it means to complete it successfully. Such criteria may be abstract and so have to be accompanied by concrete examples of the quality of work.

d. Peer and self assessment

Students should be taught the habits and skills of collaboration in peer-assessment, both because these are of intrinsic value and because peer assessment can help develop the objectivity required for effective self-assessment. Students should be encouraged to bear in mind the aims of their work and to assess their own progress to meet these aims as they proceed.

Weeden et al (2003) suggest that all students appear to benefit from learning self-assessment strategies but many high attainers already intuitively self assess, whereas lower attainers find it more difficult. Teachers can help by working with students on developing the skills required. One way to do this is by enhancing the students' meta-cognitive skills. Meta-cognition is about understanding and being aware of one's own learning – taking a step outside the learning process to look at it and reflect on it. This is an important part of being an effective learner and can be developed by answering such questions as “What have I learned?”, “How well have I achieved my targets?” “How could I do this better in the future?”

Self-assessment is important because it is *ipsative* (the assessment is compared to the student's previous achievement) rather than *normative* (compared with the achievement of other students).

LEARNING PRODUCT 2:

USING PORTFOLIOS TO PROMOTE THE STUDENT'S INDIVIDUAL LEARNING PROCESS

This session is aimed is to support your development of the use of portfolios for the assessment of student learning.

What is a portfolio?

A purposeful collection of student work that exhibits the student's efforts, progress and achievements in one or more areas. The

collection must include student participation in selecting contents, the criteria for selection, the criteria for judging merit and evidence of student self-reflection. (Paulson et al, 1991)

A portfolio is a living, growing collection of a student's work - each addition is carefully selected by the student for a specific reason which s/he will explain. The overall purpose of the portfolio is to enable the student to demonstrate to others learning and progress. The greatest value of portfolios is that, in building them, students become active participants in the learning process and its assessment.

Key characteristics of Portfolio Assessment

- A portfolio is a form of assessment that students do together with their teachers.
- A portfolio is not just a collection of student work, but a selection - the student must be involved in choosing and justifying the pieces to be included.
- A portfolio provides samples of the student's work which show growth over time. By reflecting on their own learning (self-assessment), students begin to identify the strengths and weaknesses in their work. These weaknesses then become improvement goals.
- The criteria for selecting and assessing the portfolio contents must be clear to the teacher and the students at the outset of the process.



A child's portfolio in a Swedish primary school

Box 5.7

Why use portfolio assessment?

Portfolio Assessment:

- **matches assessment to teaching.**

The products that are assessed are mainly products of classwork, and are not divorced from class activities like test items.

- **has clear goals.**

Goals are decided on at the beginning of instruction and are clear to teacher and students alike.

- **gives a profile of learner abilities.**

Depth:

It enables students to show quality work, which is done without pressure and time constraints, and with the help of resources, reference materials and collaboration with others.

Breadth:

A wide range of skills can be demonstrated.

Growth:

It shows efforts to improve and develop, and demonstrates progress over time.

- **is a tool for assessing a variety of skills.**

Written as well as oral and graphic products can easily be included.

- **develops awareness of own learning.**

Students have to reflect on their own progress and the quality of their work in relation to known goals.

- **caters to individuals in the heterogeneous class.**

Since it is open-ended, students can show work on their own level. Since there is choice, it caters to different learning styles and allows expression of different strengths.

- **develops social skills.**

Students are also assessed on work done together, in pairs or groups, on projects and assignments.

- **develops independent and active learners.**

Students must select and justify portfolio choices; monitor progress and set learning goals.

- **can improve motivation for learning and thus achievement.**

Empowerment of students to improve achievement has been found to be motivating.

- **is an efficient tool for demonstrating learning.**

Different kinds of products and records of progress fit conveniently into one package; changes over time are clearly shown.

- **provides opportunity for student-teacher dialogue.**

Enables the teacher to get to know each and every student. Promotes joint goal-setting and negotiation of grades.

Essential Elements of the Portfolio

It is important to include all of the following:

1. Cover Letter “About the author” and “What my portfolio shows about my progress as a learner” (written at the end, but put at the beginning). The cover letter summarizes the evidence of a student’s learning and progress.
2. Table of Contents with numbered pages.
3. Entries - both core (items students have to include) and optional (items of student’s choice). The core elements will be required for each student and will provide a common base from which to make decisions on assessment. The optional items will allow the folder to represent the uniqueness of each student. Students can choose to include “best” pieces of work, but also a piece of work which gave trouble or one that was less successful, and give reasons why.
4. Dates on all entries, to facilitate proof of growth over time.
5. Drafts of aural/oral and written products and revised versions: i.e., first drafts and corrected/revised versions.
6. Reflections can appear at different stages in the learning process (for formative and/or summative purposes) and can be written in the preferred language of the user.
 - a. For each item - a brief rationale for choosing the item should be included. This can relate to students’ performance, to their feelings regarding their progress and/or themselves as learners.
 - b. Students can choose to reflect upon some or all of the following:
 - What did I learn from it?
 - What did I do well?
 - Why (based on the agreed teacher-student assessment criteria) did I choose this item?
 - What do I want to improve in the item?
 - How do I feel about my performance?

Stages in the implementation of portfolio assessment

Step One: Identify the main aim of your portfolio

Give students a clear indication as to why they will be keeping a portfolio and its importance.

Step Two: Identify the teaching objectives which will be assessed through the portfolio

The very first and most important part of organizing portfolio assessment is to decide on the teaching objectives. These objectives will guide the selection and assessment of students' work for the portfolio.

To do this, ask yourself "What do I want the students to learn?" Decide what skills the students should have acquired at the end of a course of study. Make a list of these skills.

This stage is so important because teachers have to know what their goals are in terms of what the students will be able to do. Moreover, students have to know what they need to show evidence of in their portfolios.

For example when developing the Professional Development Portfolio for student teachers we sat down and discussed the skills which a professional teacher should have acquired after four years at University. We came up with a list of skills such as that the teachers should have professional knowledge, teaching skills, management skills, knowledge of ICT, being able to monitor pupil progress and other professional qualities and community involvement.

Once these skills were identified we could easily start to develop a table of contents for our portfolio (see Table 5.4).

Step Three: Identify the portfolio content

Once the teaching objectives have been identified, that is, the skills which students should have acquired, the actual artifacts which can demonstrate that a particular skill has been acquired can also be identified.

For example the professional knowledge of a student teacher can be demonstrated through their academic transcript, through a written assignment and through the feedback obtained from tutors. The teaching and learning process can be demonstrated through the

Table 5.4
Contents of a portfolio

Learning Objective	Classroom Activity	Portfolio Evidence	Assessment Tools
The student will be able to light a Bunsen burner.	The students light a Bunsen burner.	<ul style="list-style-type: none"> • A description of how to light a Bunsen burner with diagram. • Teacher comment on accuracy of lighting the Bunsen Burner. 	<ul style="list-style-type: none"> • Self assessment checklist • Teacher observations
The student will be able to express feelings and ideas.	Write about a favourite person or hobby.	Project: Me and my family. Draft and final product.	<ul style="list-style-type: none"> • Rating scale

inclusion of lesson plans, tutors' reports, feedback from pupils and so on.

The artifacts which can be included can take many forms, written, drawings, diagrams, photographs, etc. They should be able to show clearly that the students have developed a skill. Try not to include too many artifacts so that the portfolio can be manageable. The artifacts can include best pieces of work or they can also include draft work to show the development of a particular skill from one period of time to another.

Students need to be reminded that each artifact should be annotated, that is, include the date and context of the piece of work.

Step Four: Giving Feedback

After all the efforts which students are making to produce work, it is recommended that the teachers provide feedback to students. Feedback can be given for each individual entry (analytic assessment) and feedback can also be given for the portfolio as a whole when this is completed (holistic assessment).

Step Five: Preparing reflective writing sheets for students

An important aspect of the portfolio is that it is not simply a collection or scrap book of student work. It shows the process and development of students' thoughts and ideas through their reflections.

Each artifact which is included in the portfolio should be accompanied by a reflective writing piece which indicates why the student has decided to include that particular piece of work, what they learned, how they think that the task could be improved.

Students need to be helped and taught how to reflect. This can be done by preparing special reflective writing sheets which guide the students and tell them what they need to think about when including a particular piece of work in their portfolio. These sheets can be very guided or students can be left completely free to write anything they would like.

Students can also be asked to assess their own work or that of their peers. Again checklists can be used to help the students develop critical skills. These sheets can once again be included in the portfolio.

Step Six: Student Teacher Conferences

An important element of the portfolio philosophy of shared and active assessment is that the teacher should have short individual meetings with each student, in which progress is discussed and the goals are set for a future meeting.

Students and teachers should document these meetings and keep the goals in mind when choosing topics for future meetings.

In this way student-teacher conferences play an important role in the formative evaluation of a student's progress. They can also be used for summative evaluation purposes when the student presents the final portfolio.

Notes from these conferences can be included in the portfolio as they contain joint decisions about the individual's strengths and weaknesses.



THINK



REFLECT



PLAN

This chapter has discussed ways of diversifying content, process and product of teaching and learning to adapt it for the engagement of all students.

Did it make you ask any new questions about the way we teach? Here are some questions and activities you might like to make use of:

Content

- Think of a particular lesson you carried out recently: Can you identify the different contents, processes, and products of the lesson?
- If you are planning a new lesson, can you think of different contents for that lesson?
- You can interview students after a lesson and see what they learnt from that particular lesson. Did they learn different content?
- Together with a group of colleagues in class or on line, think of an area of the curriculum, possibly within literacy or number, that you are planning for your students to learn during your next teaching practice. What is the '*big idea*' of that part of the curriculum?
 - What are the *important specific ideas* in that same area of the curriculum that you want your students to understand during your teaching practice?
 - What are other less essential ideas that you want your students to learn in that same area of the curriculum?

Process

- Think about all possible ways in which a particular content can be taught.
- Describe the various methods used by a teacher you observed doing a lesson.
- Observe or watch a video on how a teacher creates independent learning time.

- How can you organize independent working time for a student with learning difficulties?
- How do you respond to students who seek teacher attention all the time?
- Identify yourself with a student with ADHD. How can you be engaged in constructive work on your own?
- Consider the descriptions on the organisation of learning in the Montessori (Box 5.2) and Dalton (Box 5.3) classrooms in Holland and jot down your reflections: What do these teachers describe as fundamentals for: Direct instruction, and Independent learning time? Can you see overall differences and similarities in their arguments? How do the concepts of direct instruction and independent learning time relate to constructivist learning?
- Think of an activity you were engage in with your colleagues. What role did you play in the group? What helped or hindered the group's collaboration?
- Observe group work in classrooms. What works? What doesn't?
- Read the chapter by **Sapon-Shevin (1990)** and the article by **Hall & Stegila (2002)**. Plan at least one activity in which students support each other in pairs. Reflect on the effectiveness of your action towards responding to diversity. You may make use of video clips on peer tutoring arrangements.
- Read the article by Johnson et al (1998) on the teaching of cooperative skills. Plan and implement a group-work activity with your trainee colleagues to practice particular cooperative social skills
- Can you think of a group task that does not involve writing, or that is not even dependent on language at all?
- Discuss pluses and minuses of competitive and cooperative work. One group may write all the signals of teachers that create competition, and the other group lists the signals that create cooperation.
- Ask children in your classroom what they think of collaborative learning.
- Relate your practice of collaboration to Vygotskian theory.

Product

- How do you feel today about assessments you are getting in your life now?
- Remember how you were assessed during your own school years: How did you feel about the assessments you received?
- Are there particular things you found you are good at but about which you had felt unable because of the critical feedback you had received?
- What is the main purpose of assessment? Give examples of different forms of assessment (Pre-assessment; Feedback; Statistical/administrative evaluations).
- Choose one of the aspects of assessment and practise it with one of your colleagues: questioning; giving feedback on performance; sharing assessment criteria; and using peer and self assessment. Evaluate the formative impact or otherwise of your experience.
- Try to give constructive feedback to a fellow student about a particular performance – particularly if it includes a lot of mistakes.
- Reflect on how you give feedback to your students as they present you with their work: What did you say? What did you write? What impact did it have on the child?
- Observe the impact on children as they look at their school reports. Look at samples of reports from different types of schools and discuss the impact of each on the child's learning. Discuss different ways of communicating reports: if directed to child or adult
- Do you have any system in which you have some kind of portfolio? When would it be appropriate to use portfolios? Discuss the pluses and minuses of portfolios. You may use **Chetcuti (2006)** for further clarification.
- What would you put in your portfolio? Discuss the different examples/artifacts that can be included in portfolios. Can you include grades in the portfolio?
- Would a portfolio assessment be appropriate for a unit of learning using this handbook?

FURTHER READING

A powerpoint presentation on 'Understanding by design' using 'big ideas' is available on: <http://www.ubdexchange.org/resources/ppts.html> and

http://pdonline.ascd.org/pd_online/ubd_backward/mctighe99chapter4.html

Ideas for differentiating content in mathematics and science for gifted children are available on: http://www.nwrel.org/msec/just_good/9/ch6.html

For a starting experience of teaching through differentiation with older students, see:

<http://www.nea.org/teachexperience/diffk021218.html>

<http://www.humboldt.edu/~tha1/hunter-eei.html#eei>

For an account of the important concepts and skills in mathematics or literacy and how they can be learnt in a constructivist framework, see

Gregory, G.H. & Kuzmich, L. 2005. *Differentiated literacy strategies for student growth and achievement in Grades K-6*. California: Corwin Press.

Farrugia, M.T. 2003. Teaching and learning primary mathematics. In S. Gatt & Y. Vella, *Constructivist teaching in primary school*. Malta: Agenda.

For peer tutoring, see:

Hall, T., & Stegila, A. (2003). *Peer-mediated instruction and intervention*. Wakefield, MA: National Center on Accessing the General Curriculum. (Retrieved 16.10.05 from http://www.cast.org/publications/ncac/ncac_peermii.html)

For cooperative learning, see:

Johnson, D., & Johnson, R. (1999). *Learning together and alone: cooperative, competitive, and individualistic learning*. Boston: Allyn and Bacon, Extract from http://www.intime.uni.edu/coop_learning/index.htm

For portfolios, see:

Chetcuti, D. (2006). Portfolios: FAQs. Malta: DTMp.

CHAPTER

6

PLANNING, IMPLEMENTING AND EVALUATING RESPONSIVE AND INCLUSIVE TEACHING

AIMS

The aim of this chapter is to support teachers' application of the principles and strategies for reaching out to all students in their preparation, implementation and evaluation of responsive and inclusive teaching strategies in the classroom. It can be useful for preparing for a longer engagement with a class of children as well as in preparation for a more limited engagement during a single lesson or few lessons. As a guideline, the exercises in this chapter are addressed to the reader directly as a practising teacher.

The more specific aims of this chapter are to provide the reader with an opportunity to make use of the knowledge and skills discussed in the previous chapters:

1. To plan for and actually create an inclusive and supportive climate in the classroom.
2. To plan for and get to know the students one is teaching or is going to teach: their interests, learning profile, readiness levels, and affect towards the curriculum.
3. To plan the curriculum, and with it the learning environment, as a flexible and varied mixture of content, process (including learning environment), and product elements that can be adapted to invite each child to be engaged and make progress.
4. To orchestrate learning activity so that all children are actually engaged, are empowered to learn and experience success with whatever and whenever support is necessary.
5. To evaluate one's teaching activity in terms of its effectiveness and appropriateness in enabling the engagement and learning of all students as expected within the goals and values of responsive teaching and inclusive education.



What the teachers say ...

6. ON RESPONDING TO DIVERSITY IN THE CLASSROOM

TEACHER FROM MALTA: *I: What should teachers address do you think, for them to be able to respond to each child?*

T:(7-year olds) ... How you can set the classroom, to deal with specific problems. I mean, group work is fun, but if you have a child with attention-deficit in group work just as in class work, because you're just giving him more and more opportunities for him to be distracted, for him not to focus on you, for him to focus on everything except on you ... So I think, teachers have to be made aware that what works wonders, or what looks very good on paper, doesn't always work in the class, and thus, and strategies that might have worked this year, might not work next year.

TEACHER FROM SWEDEN: *What I have to do and I find a little bit sad is that I have to be very specific. If we have, and that works quite well, if we play a game in PE where they chase each other I have to tell what they are supposed to do if caught. Then you have an alternative, so I have to tell, very specifically, that you must not shove each other, but you can choose to leave the game at any point. You may sit down and feel sad and disappointed. Then it works out, but I have to be very specific about exactly what is going to happen. If you get caught or anything, how to react. I also have to tell, for example, now we are going to write about the Easter holiday, I will correct what you write a little bit and I will correct this and that capital letters and full stops. It is the same for everyone and then I can do it, it works very well. But it is rather important to be specific in the instructions and tell exactly what I expect will happen, and then it works out. So in that way all the class is affected. ...*

TEACHER FROM THE UK: *They are very, very motivated when it comes to the thematic tasks, when they have been helping planning it. I think so, and then there is an enormous*

motivation. Before the holiday, we put up a play about the Stone Age, they wrote their own script, they produced plays in groups, and then all the children are very motivated I think.

The hardest thing I do is my planning. To actually sit there and think what I am going to do over the next 4 or 5 weeks because really it changes day to day and things occur to you on a day to day basis and how the children have responded. You want to go down different avenues because of because of.... So I feel that I am actually a more responsive teacher than a planner.

TEACHER FROM LITHUANIA: *There is a boy of different nationality (a Romany), and it is not easy to communicate with him as he speaks Romany at home and I cannot speak his language, and do not have the slightest idea how to speak it, so we communicate in signs and I should say we are quite successful ...*



An inclusive teacher keeps the focus on the children

CREATING AN INCLUSIVE AND SUPPORTIVE CLIMATE

This section focuses on the teacher's preparation for creating an inclusive climate in the classroom.

Seek to reach out to students

If a teacher intends to be responsive to student strengths and needs, he or she needs first of all to reflect on his or her **personal goals** and challenges for reaching out to his or her students. This needs to be done also by beginning teachers, even though they often feel quite overwhelmed by the many challenges they face in managing children and their learning and when they are not helped by the situation they find in the school and classroom (Holloway, 2000).

When **planning their teaching encounters**, teachers often focus on two major concerns of classroom teaching: (a) What am I going to teach this class and how am I going to teach it? And (b) How am I going to win and manage the children's cooperation and what do I do if they do not follow the rules (read by teachers as 'If they do not obey me')? Intertwined with these foci, however, teachers will find it useful to keep in mind the principles of inclusion and responsive education while preparing the relevant content and materials and planning management strategies. It is expected that this first engagement with the class will be motivated by an openness and unconditional positive regard towards all children in the class (see Box 6.1). The teacher can, making use of the ideas discussed in the previous five chapters, ask himself or herself and reflect (in small steps: see Box 6.2):

- Have I developed an unconditional positive regard towards these children individually and as a group?
- How can I create an inclusive culture in which all students are equally valued?
- How can I get to know my students so that I can create a supportive relationship and create meaningful, interesting and challenging learning situations?
- How can I get to know the big ideas of the curriculum so that I can make the curriculum progressive and diversify the learning content, process and product so each student can experience success?
- How do I orchestrate a lesson that enables each of my diverse students to be engaged and challenged?

Box 6.1

A positive attitude towards all children's learning is essential

TEACHER FROM MALTA: *That's the beauty of our job: Every June I'm sad to see one group leave, but we have a new group in our class every year. That's why I said October is very difficult, because you have to get to know them, you have to open these presents, you know, and you don't know what you're going to find, but it's our job to find it and to see what and how things are going to work out.*

The next sections are intended to enable teachers to try to apply the principles, knowledge and skills discussed in the previous chapters to actual classroom situations in small steps.

Box 6.2

Start off with 'baby steps'

(Wehrmann, 2000)

Is differentiation the straw that breaks the busy teacher's back? Here are some tips I compiled from my research for making differentiation doable and for meeting the needs of gifted and talented students.

First, ... take baby steps. A runner training for a marathon doesn't jog 20 miles on the first workout. The same idea applies here. Add differentiation activities gradually so that they don't overwhelm you or your students. Start with one student and differentiate only the content, for example.

Second, make activities different; don't just add more of the same. Sometimes teachers differentiate the product by having some students do more of what the other students are doing. Instead of solving 25 multiplication problems, the gifted and talented students must work 50 problems. What message are we giving those students who have already mastered the mathematical concept? The answer: being mediocre is a better choice than being gifted (Taylor, 1999).

Third, the best way to meet the needs of the gifted in a mixed-ability classroom is to raise the bar for everyone. Yes, there are times when I specifically target an activity for the gifted and talented, but many times I open an alternative learning experience to the whole class. By doing this, I communicate to my students that I think each of them is capable of high achievement.

My fourth tip is to find your students' passions. Discover what makes them tick. I tap into students' interests during class discussions, when I create assignments, and when I see students in the halls between classes. Linking their world to school creates more engaging and relevant educational experiences.

Prepare yourself

This handbook has attempted to support the construction of a framework for responding to student diversity. This calls first of all for reflection on one's **beliefs** about teaching and learning. This is particularly necessary because most of us have been educated and are engaged in teaching in school situations with a strong philosophy and practice of a 'one-size-fits-all' educational system. Only by challenging our existing beliefs can we be enabled to envisage different inclusive situations.

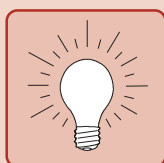
For instance:

- Do you find yourself believing each of the children in your class is worthy of your time and effort and able to make progress?
- What major insights have you acquired regarding teaching through the issues raised in this handbook? Describe your personal goals and challenges for using these insights in your next sessions in the classroom.
- Consider the qualities you possess and the resources you have available for your next teaching practice: How can you use your qualities and resources to invite the children in your class to join in the learning process?

Box 6.3

Action research approach

In order to further his or her professional development, it is essential that the teacher adopts the process of **Action Research** and **Reflective Practice** that was discussed in Chapter 1. This process means that you:



- Think of a particular issue in inclusion and differentiated teaching that you would like to implement;
- Plan strategies for implementing it;
- Implement your plan in the classroom;
- Evaluate how effective it has been or not in helping you to reach out to each child;
- Modify accordingly and try again ...

As noted above, one should start in **small steps**: For instance, focus on **just one particular child** who is not participating fully in your class activities, and think of ways in which you are going to enable him or her to also engage in your lessons, possibly also in a particular subject area only.

Prepare *the class* for inclusion

Teachers have told us that inclusion does not just happen. They try to develop a caring and supportive climate. One can plan, from the beginning, some activities that will **prepare students to understand differences** and see them as a possible enrichment to the classroom. Consider suggestions from Chapter 3 (e.g. Box 3.5 Strategies to celebrate student accomplishments), and Chapter 5.

First of all you can focus on the classroom culture, shown in the **displays** and classroom interaction: Is it one where only the best students and work get recognition? Is competition a regular feature of interaction and motivation? Are all pupils equally valued? Equally involved in the lessons?

One can plan for **rewarding systems** that are open to all students and allow each to be valued: reward for effort; for individual learning and progress (each student can add value to his or her learning); for being supportive to others; the use of “round robin” in discussions or products from each student in displays.

A useful community building measure is starting off with some time to agree together and write out a set of **ground rules** for ensuring respect and participation by all. Children can come up with such rules as ‘We wait and listen when someone else is talking’; ‘We help each other’; ‘We let everyone get a turn in our activities’... These can be displayed in the classroom.

Consider, for instance, Sapon-Shevin’s (1990) suggestions for activities to **‘build the Classroom Community’**:

A sense of belonging and cohesion can be built by activities that draw the whole class together. Putting on plays, some students writing the script, some painting the scenery, some drawing posters, and others making popcorn, can be a community-building experience that can easily involve students of varying levels of academic proficiency, English-language skill, physical ability, and so forth. Singing together also creates a sense of community; class members can take turns teaching and leading songs or small groups of students can take responsibility for directing the morning’s music. The teacher should encourage sharing of all kinds and structure situations in which every child has a chance to speak and be heard. For example, consider allowing students to begin the day by telling a joke, describing a humorous event that happened at home, or just sharing something they have been thinking about.

Get to know the students you are going to teach

This section focuses on ways of getting to know the students you are teaching or going to teach.

Knowing the students

You can refer again to Chapter 4 about what to look for and how to get to know your students. How far and in what way you will get to know your students depends on the type of engagement you have with a class. You can build a profile about a particular child who is not being engaged, follow the child's learning over time (some weeks) and plan for supporting her/his learning; or you can develop a class profile and plan some lessons for the class; or you can do both those tasks simultaneously.

- If you are to deliver only sessions in a particular subject, observe the children learning that subject or theme that could be possible for you to prepare a lesson for. You can do a *brainstorming exercise* with the class to pick up information and interests related to the subject or theme. The work should focus on planning and carrying out differentiated teaching and learning that you take responsibility for.



The teacher sees herself as a manager of learning situations as she tries to respond to student diversity

Box 6.4

What teachers find out about their students

The teachers we interviewed about responding to diversity often prefaced their adaptation of interaction, content or process or product of the lesson with the statement, “Because I know that he/she ...”, “I know them pretty well by now and so ...”:

TEACHER FROM MALTA: *If I know this child is sensitive, I talk to him in a certain way, but if I know this boy will feel offended even if I say a joke, or that girl would be offended, then I will not say the joke. ...*

But I know that there’s trouble at home ... I am not going to ask him why he did not get his homework as I do with the others ...

For instance, I chose that boy for Sports Day today to give him a boost because I know he is passing through a bad patch. We had a little chat: I called him near me during the maths activity and we worked it together.

TEACHER FROM UK: *And because you know your little group of children, you can adapt as you go on your questioning, your support or whether they have had too much of that ... knowing how to touch individuals ...*

TEACHER FROM SWEDEN: *First of all (knowing the students) it affects how I divide them into groups, I have to think about which persons that can function in the same group, I have to be very careful with that. ... otherwise nothing would work, it wouldn’t. ... And then I have demands on them and that because I know them pretty well. So everything doesn’t look the same, I mean that I don’t have the same demands even if they have worked as much that they have done. One-student writes 10 pages perfectly and really nice while another student struggles a lot and has written half a page, but it is the same kind of work, that is brilliant.*

TEACHER FROM MALTA: *If for instance we are doing the clock, and I know that this boy cannot do the 5 minutes past 10 and 10 minutes past 10, ... I call him near me; I tell him to go and draw a clock himself and put in the numbers because I know that that is how far he can go; and then I give him for instance the 1 o’clock and half past because I know he can go that far, academically.*

TEACHER FROM UK: *You need to be there and do several observations over several weeks and observe how they respond to different strategies and find out what it is that sparked off incidents basically, and how they respond to, on different days, to different responses from the teachers or carers or other children. ... obviously talking to the parents but in a very subtle way to find out Getting to know the parents can reveal lots really.*

- You may decide to do an individual *case study*. You may focus on a particular child or group of children and a particular area of need or curriculum. Map out a child's school and classroom situation and learning process. Ask the teacher in the class for permission to observe the child. It's also important to ask the parents for permission to observe the child. Handle the data you collect with respect for the integrity of the person observed. All personal data must be removed. Observe the child and collect data about the child's learning process. Try to figure out the child's zone of proximal development.

The following are some ways through which teachers say they get to know their students:

1. Contact the teacher of the class and plan an advance visit to the school: *Observe* the children in the classroom and collect information about the class and the children's learning process. You may also *interview the teacher* about the class, and about individual children's interests, strengths and needs.
2. Focus on understanding the general situation:
 - the children's participation;
 - interaction between the teacher and the children;
 - *the environment* for learning and pedagogical support.
3. Focus on understanding the children's *strengths, needs* and *motives* for learning. **Motivation is about mobilizing power to work towards a goal.** If the children don't understand the benefit of the knowledge or the task, the motivation for the work on a specific task or a theme will not appear. Schools need to be better at supporting pupils to see what the goal for the task may be. To visualize or imagine what the product may look like when the goal is achieved is particularly important for pupils who may have difficulty in understanding and handling skills during the initial phase of work on a certain task. You can ask yourself: What motives for learning does this child have? What goals, part of goals in learning can we reach? You will then be able to form a lesson that suits the student's learning process and invites possibilities. Thus get to know:
 - Your students **as people**: Who is the child/children? What is important in their life? What makes them tick? What joys and fears have they experienced? ...

- Your students as learners - **Interests:** Do they like animals, cars, football, music ... What are their hobbies? Such interests are very motivating and can provide exciting contexts for most content (attitudes, knowledge and skills) you are trying to teach.
- **Learning profile:** How do your students learn most easily and effectively: including both cognitive, socio-affective and physiological factors? A useful instrument for assessing student learning patterns is the *Learning Connections Inventory (LCI)* (see Chapter 4).
- **Prior knowledge:** What resources for learning do these children have? What does the child/children know about this subject or theme? What is their level of attainment in understanding, attitude or skills in the subject you are trying to teach your students? Use pre-assessment activities to get to know what they already know.

With regards to the first three student aspects - experiences, interests and learning profile - there are many ways in which you will continue to learn about your students over time as suggested by **Patterson (2004)** and Gregory and Chapman (2002). But it might be useful to prepare a little list of questions you want to ask your students at the very beginning of meeting them. This can be in pictures or orally for the younger children, or in written form for the older ones. Making use of the information in Chapter 4, construct a simple initial schedule of questions to ask your students.

Get to know the curriculum

This section is aimed at supporting your consideration of the curriculum, and with it the learning environment, as a flexible varied tool in terms of content, process (including learning environment), and product for helping children to grow and learn.

Pre-planning and adapting on the spot

If one aims to be inclusive and responsive to students' strengths and needs, one has to dedicate energy to planning. It is essential that one plans the curriculum with the students in mind.

At the same time, also, in order to be inclusive and responsive, one has to be flexible in using one's plans in the class. A Swedish teacher in training service told us from her experience that 50% of

what was planned could be fulfilled and 50% had to be handled in the up-coming situation. As a teacher you have the task of struggling to reach the goals set for each child. But we can't see the child as an individual only. We have to see the child in the group and the child's learning process with the help of the group. We have to handle the child and the group at the same time. To balance one's work in accordance with this is not easy. The teacher who spoke about planning and up-coming situations had 17 pupils to handle in her class:



TEACHER FROM SWEDEN: *There is a child from former Yugoslavia, and also a child from Iraq and then I have a child from Gambia. And then I have children with a very tough background socially. Really tough, where the adult care aspect doesn't work, and also practical issues such as breakfast and going to bed at night and almost nothing works. Of course it shows in class. Then I have two children that I feel are not at ease right now, socially. Then I have a child without diagnosis, but who I would say definitely has mild Asperger syndrome actually. That also leads to special considerations from my side.*

In this situation, the teacher has to be able to respond to the ongoing situation. First of all this particular teacher found that she used "80 % of her time to support these children and the others had to share the remaining 20%." This is a rather unbalanced situation that the teacher has to address over time.

This means that a responsive teacher reflects on the goings on in the class and may allow for differently balanced lessons over a week to ensure fairness in valuing all students' needs. The teacher has the role of a leader who can responsibly handle the children's needs for learning on the spot (see **Wetso, 2005**, on use of Activity theory).

Planning for soft and hard goals

Schools are meant to support the social bringing up of children. Children's growth includes learning to take responsibility for one's own actions and developing understanding of and sensitivity to others' needs. We can call these "soft goals". Soft goals are seen as very important for future employability (Sparkes & Glennerster, 2002). We also have educational goals relating to the acquisition of knowledge and skills about the object world: we can term these "hard goals". The pupil can be awarded a certificate for progress in either soft or

hard goals. All lessons are supposed, in some way, to work towards “soft goals and hard goals”. *While planning a lesson both these goals should be considered.*

Planning resources

Pre-planning includes an *inventory* of available resources for the work that is to be done. In this handbook we have focused on a preparatory plan for differentiated teaching. In accordance with this preparatory plan it is important to speak about the *teacher’s inside resources* and the *teacher’s outside resources*. The teacher is a kind of resource for the child, the class and his or her colleagues. A teacher’s own resources are built on earlier experience and knowledge of the subjects or theme he or she is intending to work with and his or her inside pictures of what can be presented in accordance with the subject or theme being taught.

Planning as a team

The teacher can do the whole planning of the lesson through teamwork. If you are at least two or three trainees working together in a team, you can learn more from this exercise. You can also support



An inclusive teacher engages in interaction with individual students

each other throughout the process – and change roles in the learning activities. You can together pick up, discuss and take care of experiences. You exchange experience in work. The team members can act as critical friends to help with reflective teaching.

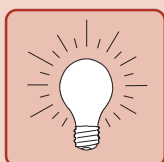
A critical friend in planning

One can also have a teacher colleague or a mentor or tutor as a critical friend. A critical friend can help to *test* the “planning strategies” before actually implementing them in the classroom. He or she should keep an open mind on the planning work and pay attention both to the whole and the parts of the concept. The person in question has to give relevant comments and explanations to help you carry out a better preliminary plan and lesson. The critical friend and you can discuss in dialogue the content and form of the lesson and pay attention to what can be a problem or what can be done in a different way. And of course what seems to constitute good plans.

Box 6.5

Laying out the curriculum

The teacher has to become familiar with the curriculum prescribed for her students. This includes both the programme of learning and the materials related to it. So:



1. Gather information about the curriculum and syllabus that is assigned to the class you are expected to teach. Set out the **big ideas** (see Chapter 5) and more specific content that children should be learning. Think about possible progressive steps in the acquisition of the required learning.
2. How can you wrap the content students are to learn with different examples or in different envelopes (i.e. tape recording, video, simulated document, conversation script ...)?
3. How can you adapt the material or information or practice students are expected to engage with to a level that is appropriately meaningful and challenging in complexity, independence, and pacing? Produce two or more levels of the content (materials or information) of the learning involved.
4. What sort of activities can students be involved in to engage meaningfully with the required new knowledge and skills?

PREPARING AN INCLUSIVE AND RESPONSIVE LEARNING AND TEACHING SITUATION

This section aims to enable you to prepare an actual plan for orchestrating a learning and teaching situation that is inclusive and responsive to student diversity.

Organise your curriculum content, process, and product according to student needs to empower student learning

You can now organise your curriculum material into actual goals of content, process and products you can make use of in your next lessons, taking into consideration the background, interests, learning profile, and readiness of the children in your class.

There are various ways of setting out plans for differentiated and inclusive lessons.

First of all, you will probably best have a unit of study that may extend over at least a week or a few weeks which will allow flexible adaptation to different activities and levels of achievement in the unit (see e.g. Hargrave, 2003). For instance, at some point you would need to think of pairing or other grouping of students as was discussed in Chapter 5; but this does not need to happen necessarily at every step.

As regards planning formats, again several different ways can be used. One practical way may be to have two columns, one with the main plan including activities for the whole class, with an accompanying column showing the differentiation aspects of content, process and product.

Box 6.6 presents a possible way of preparing tiered **contents** of the lesson, with a filled-in example from the Maltese syllabus for learning English as a second language at age 7 years, with an indication of:

- the big idea,
- more specific concepts,
- what *all* students are expected to know,
- how student interests will be tapped, and
- tiered tasks in three levels of difficulty

In addition to this, the teacher can think of diverse ways in which students can process the tasks and produce evidence of learning. One way in which you can get ideas is by thinking of *multiple intelligences*.

Box 6.6 Planning Tiered Learning

The Big Idea:

(e.g. from Maltese syllabus for 6 year olds)

Increase oral and written understanding and expression in English

Key concept/skill:

- 2.1.9 **Oracy:** Acquire and use a repertoire of words
- 2.2.11 **Reading:** Begin to develop an extensive repertoire of vocabulary in context.
- 2.3.12 **Writing:** Demonstrate an ability to use acquired vocabulary in writing

All Students Will:

- Learn vocabulary related to ... (eg. animals)
- Use the vocabulary learnt in context in oral and/or written communication

Relevant student interests: e.g.

- Animals as language context;
- Individual experiences (e.g. pets)
- Use of drawings/crafts
- Use of documentaries/ features

Pre-assessment Activity

Aim: Find out what students know/can do already of the key concept/skill: e.g.

- Ask students to give animals names (or name pictures of animals shown) in English/
- Ask students to read/write the names of animals on the board.
- Ask widely to see which students have or do not have any grasp of the concept/skill;
- Use familiar and unfamiliar animals/ easy-difficult names;
- Note which animals are named.

Tier 1 Tasks: e.g.

- Show/choose pictures of animals they have/ would like to have at home
- “ Name pictures of animals after demonstration
- “ Match flashcards of animal names to pictures after demonstration

Tier 2 Tasks: e.g.

- Name/ categorize pictures/ names of animals that can be pets, that are at the farm, that are at the zoo.
- Match/ write names of animals to pictures
- Say/ write in given structure what animals do; name their young; name their homes ...

Tier 3 Tasks: e.g.

- Say/write sentences in English about what different animals do;
- Describe orally a pet/ Write a paragraph about a pet;
- Argue in English for care for animals.

Varied learning processes to be used (methods of working on tasks): e.g.

Varied learning products (how students show their learning): e.g.

You might want to develop a multiple intelligences scale grid of ideas similar to Table 4.1 (see Chapter 4).

IMPLEMENTING RESPONSIVE TEACHING

This section aims to serve as a guide for the teacher's actual implementation of responsive teaching in the classroom.

Orchestrate the lesson/s with a focus on responding to student diversity

There are different ways of organising differentiated and inclusive learning. You may have your own particular ways of approaching the actual organisation or indeed *orchestration* of a lesson. Moreover, this handbook has adopted the principle that inclusion is not a technique but a philosophy, and so we expect that different teachers in different contexts may apply the philosophy in interaction with their students in many different ways.

However, we make the following suggestions as possible guidelines for implementation:

First of all, ensure that there is an inclusive and supportive climate which welcomes every student to take an active part in the lesson. You may have already carried out sessions on appreciating each one's difference and respecting and celebrating such difference (see Chapter 3).

Secondly you need to prepare yourself for the lesson by:

1. Getting familiar with the lesson plan, running the lesson briefly in your mind to get a feel for how it is going to proceed. In this way you can concentrate more on the students' responding when you start the lesson.
2. Adopting an open and inclusive attitude aiming to reach out to students.
3. Involving any support staff available in lesson delivery and organisation of activities (see Chapter 3).

You are now ready to deliver the lesson aiming to engage all students:

- a. Seek to empower them to make use of their strengths. Use student strengths as resources for the lesson. Have in mind the needs of those students who require some adaptation to be engaged and feel challenged to achieve learning.

- b. At the start of the lesson: allow for input from the students to elicit their relevant prior knowledge in the area; allow for relevant student input from their lives.
- c. Share with your students the learning outcome they are expected to achieve through this lesson.
- d. Do not take too long presenting the concepts: Allow for students to engage with the concepts or skills through their own activity.
- e. Allow for choices of activity, or different roles in the same activity.
- f. At some point have pair or other forms of group work. See that each group member has a role in the tasks.
- g. Provide the relevant group or individual support for meaningful engagement with the task. Allow for peer support. If there is extra staff in the classroom, ensure they are engaged in supporting individuals and groups as needed.
- h. Request evidence of learning according to what pupils are able to and in the ways they can best do it. Each student needs to feel able to cope with your requested products successfully.
- i. At the conclusion of the lesson, have the students state briefly what they learnt and how they felt about the lesson.

EVALUATING OWN PRACTICE ON RESPONDING TO DIVERSITY

This section is intended to enable a critical evaluation of your own practice in terms of responding to their diversity of strengths and needs.

Reflect on own experience

It is a common experience for us that what we end up doing in a teaching situation may differ, sometimes a little and sometimes significantly, from what we planned.

Therefore, a self evaluation at the end of each lesson or day of teaching should help us reflect on what happened during the lesson/s. In this case, you are expected to focus your self evaluation on how far you engaged and included each student in your lesson.



Discuss with a colleague or tutor, or write down your reflections on your experience of a lesson or series of lessons in relation to reaching out to all students.

Box 6.7

Reflective writing

1. Take one episode or episodes related to responding to diversity that happened today. Describe who, what, where, when this happened. How were the students reacting to the lesson?
2. How far were the children engaged? Was the content of the lesson appealing to all the children (or to the child you had particularly targeted to engage in this lesson)? With which students was it most successful? Why? How? Was it related to the children's lives? Or were there children who were not interested or engaged? Why? What could have been more relevant to their needs and strengths? Was the content too difficult or too easy? Which content? Why?
3. Do you think the children were empowered to use their strengths as learners to master whatever learning they were expected to acquire? Did they have enough choice? What could have given them more control over their work?
4. Do you think you were successful in promoting the holistic health of your children, and in creating caring and supportive relationships in your classroom?
5. What would you do differently next time to reach out to that particular student/s who was not engaged in this episode? Would you change the content, process, product or learning environment?

EVALUATING YOUR PROFESSIONAL DEVELOPMENT THROUGH THIS HANDBOOK

This section supports you to critically evaluate your whole teaching practice as an action research project for your professional development in the area of inclusion and responding to diversity.

Conclude your action research project

You were invited in Chapter 1 to take up this handbook as a tool for an action research project for your own professional development in the area of responding to student diversity within an inclusive education.

Having applied the principles and strategies for reaching out to all your children through the use of the handbook, this is now the opportunity to look back thoughtfully at this experience. You can now evaluate, and share with your colleagues, how far and in what way the use of the issues raised in this handbook have enabled you to reach out to more students during your practice, as well as how far and in what way you feel prepared for continuing professional development in the area.



Discuss your evaluation with a critical friend and/or colleagues:

Present a 10-15 minute account of your efforts to respond to student diversity to your critical friend and/or colleagues and ask them for their feedback. Your presentation may include:

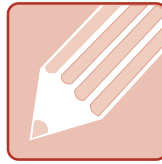
1. A description of the child/ren's situation (age, learning patterns/strengths and weaknesses, and functioning levels in curriculum, motivation and behaviour) you chose as a challenge to diversify your teaching in order to reach them; why you chose them and the priority targets/adaptations for reaching them.
2. A description of the plan/modifications to regular lessons (either give one modification as example, or different modifications of content and/or process, and or/product for different lessons).
3. The evaluation of success or otherwise of the modifications in enabling the child/ren to learn more effectively and to feel more included in the classroom.
4. Write a one page critical account of your professional development throughout this action research project, focusing particularly on how the handbook issues and reflective practice helped you to be more inclusive and responsive to pupil diversity in the classroom. You may also reflect on the remaining challenges in this area, and point out decisions on what to do in future to enhance your responsiveness.



THINK



REFLECT



PLAN

This chapter was intended to serve as a guide for your reflective practice as you went about planning, implementing and evaluating actual lessons in the classroom in which you tried to reach out to more children more meaningfully within an inclusive atmosphere.

This chapter already raised a lot of questions and involved your direct action about your teaching. But inclusive and responsive teaching are a continuing challenge to the teacher. You will continue to be challenged by new children and new curricula and situations. Do you have any new questions about the teaching situation in your school with regards to inclusive and responsive teaching? Here are some more questions and activities you might like to make use of:

Planning differentiated lessons

- Taking the understandings you have already determined for your students to learn, and the preferred ways of learning of your students, now devise a variety of ways in which they are actually going to learn them:
 - How will the activities provide for the different learning patterns of your students that require a more *structured* or more *open* type of activity?
 - How will you plan the steps towards achieving the main goal: *small or wide steps*?
 - How will you allow for *variation of time* for slow and fast workers?
 - How will you vary (scaffold) the *support* you will offer to the different students?
 - How will the activities provide for a variety of *social environments* for learning: whole class, alone, with partner or in small group tasks?
- Taking the lesson plan contents and processes you have already devised for your students, now devise a variety of ways in which your students are going to actually provide evidence of their learning (and log them in your file). (You may use Table 5.3 in Chapter 5).

Implement differentiation and responsive teaching

- While you can observe student engagement in the lesson as feedback for your efforts, it is also useful sometimes to get explicit feedback from them. You can do this orally by having a round of brief comments: How did you feel about this lesson? What did you like? What would you have liked to be different? What have you learnt today? Or you can ask these questions in writing.

Evaluation

Think of your teaching within the framework of holistic education (see Chapter 3). Different teaching methods tend to focus on different aspects of health (the flower of health is reproduced below).

- First of all, mark (circle) the percentage of teaching in which you made use of the typical methods listed below and then reflect on the possible impact of this on your students:

Lecture	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Reading	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Audio-visual	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Demonstration	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Discussion	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Role play	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Peer teaching	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Other (Specify)	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

- Which method did you use most widely? Consider the possible impact of your approach:



- If you used the **lecture** format, you were providing your students with factual information, and their role was to listen to you. Lectures put the students in a position of passive listening. The students use mostly the **mental** part of the flower of health.
- If you **read** material to students that is only factual, then using the reading method can again only address the aspect of **mental** health. But if you read or related stories to your students, these probably raised **emotions** as part of them and in the way you read or related them. So, did you address the **emotional** aspect of mental health in this or in other ways?
- If you used **audio/visuals**, you were again addressing the **mental** aspect of health, but at least you were enabling the students to use more than one of their senses. Some students learn best by listening, others by reading or seeing pictures, while others learn best by touch or by movement. Moreover, audio- visuals can raise **emotions** through visual and auditory experiences, and also stimulate the **social** aspect of health through responses to behaviours shown.
- Did you use a lot of **demonstrations**? Demonstrations, like audio visuals offer more multisensory avenues for learning within the **mental** aspect of health; they allow for students to also use their kinesthetic modality as they see you going through the sequence of steps in your demonstration. Moreover, did you also make use of the possibility of the students themselves going through the demonstrated action or at least themselves manipulate materials in the process?
- Did you make use of **discussions**? If you had discussion as a whole class and in group work, you have provided your students with an opportunity to exercise their **social** selves: by sharing and challenging and being challenged by others about ideas, feelings, and thoughts about a particular topic, as well as by taking part in the social action represented by the verbal interaction.
- Did you make use of **role-playing**? If you allowed students to adapt the roles played, or even invent ones, then you probably provided an opportunity for their **personal**

development: If you allowed the material to be more subjective for the students and more adaptable to their own needs, it was also a safe way in which they could explore their feelings, thoughts, and actions in some very difficult situations.

- Did you organize any **peer teaching**? This method again not only enables the students to learn what they need to learn most efficiently, but you would also have provided them with an opportunity to link their learning to the **social** aspects of health, as they are again challenged by a situation where they are in a leadership position, where they are challenged to share their expertise and also particularly to be able to respond to the peer's reaction to their leadership and information sharing.
- What aspects of the flower of health did you address or not address during your teaching? Do you need to change your teaching so that you can enable your students to enhance the different aspects of their flower of health?

FURTHER READING

You might find the following article useful as a beginning teacher:

Wehrmann, K.S. (2000). How to differentiate instruction. Baby steps: A beginner's guide. *Educational Leadership*, 58(1).

For planning of a unit of teaching with diversity of content, process and product in your preparation, you may find the following example useful:

Hargrave, E. (2003). The world of geometry: A mathematics unit on basic geometric concepts. In C. Tomlinson & C. Cunningham Edison (Eds.), *Differentiation in practice: A resource guide for differentiating curriculum Grades K-5* (pp.95-127). Alexandria, VA: ASCD.

Wiggins, G., & McTighe, J. (2005). *Understanding by design* (2nd ed.). Alexandria: ASCD. (See the template for developing a unit of teaching on pp. 327-332)

You might want to develop a multiple intelligences scale grid of ideas for multimodal instruction:

http://www.multi-intell.com/MI_chart.html

Gregory, G.H., & Kuzmich, L. (2005). Functional literacy. In G.H. Gregory & L. Kuzmich, *Differentiated literacy strategies for student growth and achievement in Grades K-6* (pp.63-104). California: Corwin Press.

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READING PACK: LIST IN ALPHABETICAL ORDER

Related chapter		No. of pages
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4.e	Thirteen ed on line (2004). Constructivist teaching design. EBC. (http://www.thirteen.org/edonline/concept2class/constructivism/implementation_sub1.html)	7
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