



**L-Università ta' Malta**  
Faculty of Theology

**BIOETHICS MATTERS:**

**Should Bioethics Education Be Introduced In The  
Maltese Curriculum?**

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A Dissertation presented to the Faculty of Theology  
in part fulfilment of the requirements for the  
Master of Arts in Bioethics at the University of Malta

Faculty of Theology  
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# Abstract

Bioethics education is being adopted in various countries as an integral part of the curriculum. Should bioethics be implemented in Maltese curricula, and if yes, how and at what educational level?

On 19 October 2005, the 33rd Session of the General Conference of UNESCO adopted the Universal Declaration on Bioethics and Human Rights, which has been agreed upon by 191 Member States of UNESCO. After much deliberation and discussion, there has been a universal consensus on the importance of the introduction of bioethics education within each Member State, and consolidation of bioethics education where this is already in place. Bioethical principles are being seen as the basis of having virtuous citizens, and thus it is being suggested to strengthen and disseminate these principles at all levels, for practical reasons and to help people face important daily decisions with a conscientious background.

Moral education has been prioritized for millennia, and educators worldwide have tried to instil in their students ethical perspectives as part of a holistic education. Modern scholars are reverting to the original meaning Potter gave to the term Global Bioethics, as it is argued that medical, social, and ecological issues are interconnected, as originally stated by Potter himself. Moreover, educational psychologists believe that a holistic and unified approach to education is more beneficial, and therefore we should combine our concerns and widen our focus to encompass environmental ethics, professional ethics, politics and economic issues.

In this dissertation the author will argue that there is the need for the introduction of bioethics education in the Maltese curriculum through compulsory education as a cross-curricular theme to complement a holistic education scenario for the Maltese students.

**Keywords:** bioethics, education, schooling, curriculum, Malta.

# Dedication

I dedicate this dissertation to my husband Joseph for his constant support and encouragement, my children Katarina, Miguel Eman and Noah Alejandro for putting up with long hours of lectures and studying, and my parents whose dedication has instilled in me the love to learn.

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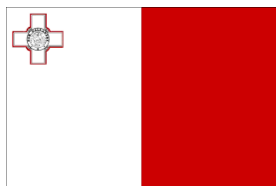
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# Introduction

It is not that difficult to find the meaning of the word bioethics and its origins, but when coming to define what one means by the term bioethics, many forces come to play, because there are various lines of thought regarding the matter. According to Nathan Emmerich “from its inception bioethics has been considered both a multi- and an inter-disciplinary activity.”<sup>1</sup> At this point it is important to understand that bioethics has been given various meanings along the years, and as Nathan Emmerich puts it “various and varying historical narratives demonstrate that there is no single account of what bio-ethics is.”<sup>2</sup> On this line of thought one cannot presume to give a blunt definition of bioethics, but rather a discussion of the various approaches to bioethics.

Bioethics is derived from the two Greek words, ‘Bios’ meaning life and ‘Ethos’ meaning behaviour.<sup>3</sup> Until few years ago it was thought that the American biochemist Van Rensselaer Potter (1911-2001) was the first to define bioethics.<sup>4</sup> Potter published a paper back in 1970 entitled *Bioethics: The science of Survival*, while a year later he published the book *Bridge to the Future* (1971) and then *Global Ethics* (1988) where he defined bioethics much more broadly, where he included ‘environmental ethics’ in contrast to biomedical ethics.<sup>5</sup> In 1997, however, Rolf Löther from Berlin Humboldt University during a conference held in Tübingen stated that Paul Max Fritz Jahr, born in 1895, had ‘coined’ the word “Bio-Ethik” as early as 1927.<sup>6</sup> Potter’s ideas about bioethics are considered similar but not identical to Jahr’s. Jahr’s ethics theory is associated with life, including humans, animals and plants, while Potters’ ethics theory includes science.<sup>7</sup>

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<sup>1</sup> Nathan Emmerich, “Literature, History and the Humanisation of Bioethics,” *Bioethics* 25, no.2 (2011): 112-118, 112.

<sup>2</sup> *Ibid.*, 118.

<sup>3</sup> “Bioethics: Basic Definition & Principles,” Disabled World towards tomorrow, last modified June 11, 2016, <https://www.disabled-world.com/definitions/bioethics.php>.

<sup>4</sup> Amir Muzur, and Iva Rinčić, “Fritz Jahr – the Father of European Bioethics,” *Synthesis Philosophica* 51, no.1 (2011): 133-139,133.

<sup>5</sup> Steve G Gilbert, “Van Rensselaer Potter: Author of Bioethics 1971,” last modified March 19, 2016, <http://www.toxipedia.org/display/toxipedia/Van+Rensselaer+Potter%3A+Author+of+Bioethics%2C+1971>.

<sup>6</sup> Muzur, and Rinčić, “Fritz Jahr – the Father of European Bioethics,” 134.

<sup>7</sup> *Ibid.*



Daniel Callahan in his article *Bioethics as a Discipline* (1973) emphasized that “the discipline of bioethics should be so designed, and its practitioners so trained, that it will directly - at whatever cost to disciplinary elegance - serve those physicians and biologists whose position demands that they make the practical decisions.”<sup>8</sup> Shrivvers and Hellegers discussed the need for an institute to act as a researcher hub to examine and analyse medical dilemmas. In 1971 Joseph and Rose Kennedy Centre for the Study of Human Reproduction and Bioethics, now known as the Kennedy Institute of Ethics, was opened.<sup>9</sup> During this period, bioethics was considered identical to medical ethics. The process was mainly led by philosophers, theologians and a few physicians. At a later date, bioethics came to include animal and environmental ethics.<sup>10</sup>

World War 2, the unethical experimentations of the Nazi regime, Eugenics and the Tuskegee Syphilis Study (1932–1972), were catastrophic events that emphasized the need for ethical guidelines. The Nuremberg Code (1947), the Declaration of Helsinki (1964) and later the Belmont Report (1979) were created.<sup>11</sup>

The notion regarding the phenomenon of ethics though, goes much earlier than all this. In the times of Hammurabi (c.1750 BC) are the first written references for ethics, but ancient Indian scientists Sushruta Samhita and Charaka Samhita, even if not by writing, referred to ethical practices. After Hammurabi, Greek philosophers like Hippocrates and the Hippocratic Oath, Avicenna alias Abu Ali al-Husain Ibn Abdallah Ibn Sina (11th Century) from the Arab world, referred to the concept of ethical issues as well.<sup>12</sup> Without written proof one can never be sure, but one can also recon that ethics and ethical thinking goes back to the existence of the human race irrespective of the nation, colour, culture or religion.

There are mainly two ways of thought to define bioethics, one including medical law, medical anthropology, medical sociology, politics and economics related to health,

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<sup>8</sup> Daniel Callahan, "Bioethics as a Discipline," *The Hastings Center Studies* 1, no. 1 (1973): 66-73,72.

<sup>9</sup> John-Stewart Gordon, "Bioethics," *Internet Encyclopaedia of Philosophy*, accessed June 23, 2020, <http://www.iep.utm.edu/bioethic/>.

<sup>10</sup> *Ibid.*

<sup>11</sup> *Ibid.*

<sup>12</sup> Jayapaul Azariah, "Bioethics Science: Is it?," *Journal of Medical Ethics and History of Medicine* 2, no. 18 (January 2009): 18-25.

and the philosophical study of ethics in medicine. The other construal considers bioethics as a branch of applied ethics, thus one branch of philosophy.<sup>13</sup> The latter subdivides into three branches; medical, animal and environmental bioethics. 'Medical bioethics' involves beginning and end of life issues (mainly abortion, euthanasia and limiting therapeutic treatment), the relationship between the health care worker and the patient, ethical research, human genetics, reproductive issues, just distribution of resources, organ transplantation and even issues concerning health care and public health. 'Animal bioethics' includes animal research and vivisection, livestock farming and animal transports, human animal chimera, meat eating versus vegetarianism and veganism, zoos and circuses and their legitimacy, animal welfare among other issues. 'Environmental bioethics' includes issues like the destruction of ecosystems, increased number of extinct species, and in recent years nuclear power, its radioactive waste and genetic engineering.<sup>14</sup> Albert R Jonsen in his book *The Birth of Bioethics* discusses most of these issues, and assesses the contributions of philosophy, theology, law and social sciences. Tom Beauchamp and James Childress in their book *Principles of Biomedical Ethics* (1979) viewed bioethics as a form of applied ethics and claimed that to solve ethical problems one has to apply the four principles; autonomy, non-maleficence, beneficence and justice. David Hume argued that one could not derive a moral 'ought' from a factual 'is', and Beauchamp was his great follower.<sup>15</sup> With convincing arguments like these, federal bodies like the National Commission for Protection of Human Subjects in Biomedical Research took on board their recommendations and created the *Belmont Report* (1979) and emphasized that research is to conform with the principles of respect for persons, beneficence and justice.<sup>16</sup>

Whilst bioethics started emerging in Britain in the 1980's, British philosophers were not in full favour of applied ethics and the principles of autonomy. Robin Downie, a philosopher, wrote that ethics involves 'politics and power'. For Ian Kennedy, academic lawyer, bioethics involved ethics and law, philosophy, sociology and politics.

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<sup>13</sup> D Bentar, "Bioethics and health and human rights: a critical view," *Journal of Medical Ethics* 32, no. 1 (January 2006): 17-20.

<sup>14</sup> Gordon, "Bioethics."

<sup>15</sup> Duncan Wilson, "What can History do for Bioethics?" *Bioethics* 27, no. 4 (May 2013): 215-223.

<sup>16</sup> *Ibid.*

Mary Warnock did not agree with Peter Singer when he called philosophers ‘Moral Experts’, and declared that ‘no-one is prepared to defer to judgments made on the basis of superior ability in philosophy’, and that ‘there was no such thing as a moral expert’. Warnock believes that bioethics has to work in a multi-disciplinary approach ‘corporate decision-making’.<sup>17</sup> This influential view, helped the Nuffield Council to form in 1991. The Nuffield Council for Bioethics consists of philosophers, lawyers, clinicians, biomedical scientists, sociologists, lawyers, theologians, businessmen, journalists and others. Onora O’Neill, previously a president at this council, stated this arrangement ensures that bioethics ‘is not a discipline’, but instead provides “a meeting ground for a number of disciplines, discourses and organizations concerned with ethical, legal and social questions raised by advances in medicine, science and technology.”<sup>18</sup>

Tineke Abama and colleagues have discussed this matter intensively and have concluded that “since its origin, bioethics has been a specialised, academic discipline, focusing on moral issues, using a vast set of globalized principles and rational techniques to evaluate and guide healthcare practices.”<sup>19</sup> They have therefore merged bioethics with medical ethics, and one can say that they are not the only ones. Jozsef Kovacs is of a similar opinion, and explains that bioethics “represents an interdisciplinary, systematic approach to the moral dilemmas posed by modern medicine and biology.”<sup>20</sup>

Bruce Jennings argues that bioethics should strive not only to interpret the world, but also to change it.<sup>21</sup> This argument implies that bioethics should not only be considered as another form of medical ethics, but as a vision that the earth should be treated with respect as each of our actions causes an effect, in which eventually public health would be at stake. This vision is very intriguing as one might therefore conclude that the basis of bioethics should be ingrained in every human being. Bruce Jennings

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<sup>17</sup> *Ibid.*

<sup>18</sup> *Ibid.*

<sup>19</sup> Tineke A Abama *et al.*, “Inter-Ethics: Towards an Interactive and Interdependent Bioethics,” *Bioethics* 24, no.5 (2010): 242-255.

<sup>20</sup> Jozsef Kovacs, “The Transformation of (bio)ethics expertise in a world of ethical pluralism,” *Journal of Medical Ethics* 36, no.12 (December 2010): 767.

<sup>21</sup> Bruce Jennings, “Putting the Bios Back into Bioethics: Prospects for Health and Climate Justice,” in *Bioethical Insights into Values and Policy*, ed. Cheryl C Macpherson (Switzerland: Springer International Publishing, 2016), 11-37.

holds that “the discourse of bioethics is a sensitive barometer of the social context within which it germinates”<sup>22</sup>, therefore one would conclude that bioethics should be an ingrained element within society itself, and everyone should be able to adapt bioethical skills through daily practice, being it a mother or a surgeon, across all social strata and globally.

Bioethics should endeavour to ameliorate society at large, and education could be the basis of a universal change in perspective. Should we decline this opportunity to have an informed view regarding bioethical issues, existential decisions will be made for us and we would simply have to comply. It is common knowledge that biology and issues related to how the human species would use the environment to the benefit of society in general, without exploiting and doing unnecessary harm, have long been areas of dispute and compromise. Moreover, from prehistoric times, the human species saw the true value of nature itself as he depended solely from it for his survival. It can be therefore concluded that issues concerned in bioethics can find their roots in the roots of humankind as they are intertwined.

One can consider many different ideas of what bioethics represents. For the purpose of this dissertation the author chooses to consider bioethics in its broader sense, including medical ethics, animal and environmental ethics as originally proposed by Potter; ‘global bioethics’. The author shall consider bioethics education and whether it is the case that this should be included in the Maltese curriculum. In chapter one the state of bioethics education in various countries shall be considered and compared. Chapter 2 will shed a light on the various educational developmental theories and give an overview of the development of moral reasoning in children. In chapter 3 the Maltese curricula are scrutinized, and any ethical content discussed, while chapter 4 includes the author’s recommended way forward as regards the introduction of bioethics education in compulsory schooling in Malta.

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<sup>22</sup> *Ibid.*

# CHAPTER 1: Bioethics Education – a Spatial Analysis

## 1.1 Bioethics Education in a Modern Society

Since its origin, bioethics has been considered as a multidisciplinary subject which touches many aspects of the physical and human environment. It has, however, been the case that certain disciplines, most prominently medical ethics, have dominated the subject as it continued to develop. Bioethics does not concern the individual only, but society at large. That is one reason for the belief that a citizen should be exposed to bioethics education because bioethics is a crucial aspect of people’s lives. As Levin points out

Bioethics is simply too important to be left to the bioethicists, but should offer opportunities for the general public to engage on a broad array of pertinent issues and to articulate their beliefs, secular or religious, and their concerns, be they related to technology or social injustices.<sup>1</sup>

Every citizen, no matter the age, needs to face moral decisions on a daily basis on how to develop and use biotechnology, what best to eat for a sustainable future, which method of transport is the least aggressive towards the natural environment, while taking a position on issues related to human rights and the rights of the child, not to mention health issues such as terminal illnesses, disability, sexual and reproductive health, and a myriad of issues related to the beginning or end of life, just to mention a few. Each daily decision one makes affects others, and to a certain extent can even have an impact on future generations. One must also recognise that one’s decisions can never be totally neutral, and are influenced by one’s family, friends, colleagues, cultural and religious values, and society at large, both locally and globally, through one’s interactions. This sheds a light on the importance of relationships which, as Eric Cassell points out, are “the basis of responsibility and the context of trust. In addition to an

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<sup>1</sup> Daniel Levin, “Deliberation and Bioethics Education: Overview,” Presentation to the Bioethics Commission. Cited in Presidential Commission for the Study of Bioethical Issues, *Bioethics for Every Generation: Deliberation and Education in Health, Science, and Technology* (Washington D.C., 2016), 23.

ethics of individuals, the time for us to develop an ethics of responsibility is past due.”<sup>2</sup> In order for a child to assimilate the skill of assessing the impact of moral decisions is not an easy ordeal, and one finds that this skill is not widely owned. Having a bioethical mindset in fact comprises a multitude of skills, such as identifying other people’s perspectives and being good listeners, so as to shed light on as much information as possible, and also the skill of actively communicating one’s insights effectively. Acquiring such skills and outcomes in a school setting would involve experiencing such situations through interaction with peers and knowledgeable adults so as to build moral stamina along the years.

Studies show that the development of moral reasoning skills begins early in childhood. Bioethics education is influenced directly by social, cultural, personal and emotional dimensions, and one would find that in different countries values are prioritised even according to historic narratives. Such complex issues call for deep considerations as to how and when should students be introduced to bioethical discourses, which information should be disseminated and at what age so as to help students make sense of such knowledge and slowly learn to use the assimilated awareness in order to critically scrutinise bioethical issues, and therefore take action in a morally sustainable manner.

One could here ponder on the idea of bioethics being taught internationally and across the board, starting from the early years up to postgraduate level. One is compelled to think that a well-structured syllabus is a priority for a bioethics education program to run smoothly and be effective. When one keeps in mind that various scholars recommend a student-centred approach, where learning outcomes have the ultimate say whether there has been any learning or not, one is then faced with the reality that the method, technique or teaching style is crucial for a successful learning experience.

Another focal ingredient would be the educator, or facilitator, who will be addressing such sensitive issues, who should be well informed and equipped with skills so as to instil

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<sup>2</sup> Eric J. Cassell, “Unanswered Questions: Bioethics and Human Relationships,” *The Hastings Center Report* 37, no. 5 (2007): 20-23, 21.

a bioethical mindset to the group he or she is in charge of. According to Jan Piasecki and colleagues:

Such a program requires not only well-defined goals, including equipping students with necessary skills and knowledge, but also it should first and foremost facilitate positive group dynamics among students and enables them to engage in dialogue to learn from one another.<sup>3</sup>

The issue, therefore, is not about content, but about the way the educator should help students rationalise their ideas in order to make the right or ethical decision. One should always keep in mind that these young people will surely have to make important decisions, personally, socially, politically and in their work environment. In a democratic society the individual is periodically faced with making bioethical decisions, first of all by deciding to vote or not for a particular political party after scrutinising the electoral manifesto, then even through referenda on specific national issues. A person might moreover be in a position where his decisions influence the employees he is accountable to, or be faced with making a managerial decision, which might also be influential to a nation if the person becomes a highly politically involved citizen such as a member of parliament.

Indeed, the Presidential Commission for the Study of Bioethical Issues of the United States of America boldly holds that “considering bioethical questions is at the heart of what it means to be an active participant in our democracy.”<sup>4</sup> One may therefore conclude that the most important aspect of bioethics education is not the message itself, as the message can never be a neutral or a universal one, but the forum for discussing sensitive issues, the opportunity to exchange ideas and to expand one’s consciousness. The fulcrum of bioethics education is the capability to assess and understand a particular issue, then to scrutinise it with a bioethical frame of mind. It is the skill to negotiate when there are conflicting views, and the art of deliberation. It is the bioethical mindset which should be ingrained in one’s day-to-day chores. The topics at hand might be different in thirty years’ time, but if a person grows within bioethical values, the person’s

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<sup>3</sup> Jan Piasecki *et al.*, “Erasmus Mundus Master of Bioethics: a case for an effective model for international bioethics education,” *Medical Health Care and Philosophy*, no.21 (2018): 3-10, 3.

<sup>4</sup> Presidential Commission for the Study of Bioethical Issues, *Bioethics for Every Generation: Deliberation and Education in Health, Science, and Technology* (Washington D.C., 2016).

future judgements would inherently be scrutinised bioethically, with decisions taken democratically and in a responsible, just and equitable manner.

## 1.2 Bioethics and UNESCO: Challenges and Needs

The *Universal Declaration on Bioethics and Human Rights* was adopted by UNESCO in October 2005, and from then on Member States were committed to “respect and apply the fundamental principles of bioethics set forth within a single text.”<sup>5</sup> This has been a vital milestone which has pushed bioethics education to flourish in many nations, as it has been ‘enshrined’<sup>6</sup> within international human rights. This declaration has acknowledged the interrelationship between ethics and human rights, whilst recognising the difficulties posed by the rapid advances of science and technology, and therefore suggesting ways how these issues could be resolved. The declaration takes into account multiple scenarios, but as regards the education sphere, Article 18 states that “persons and professionals concerned and society as a whole should be engaged in dialogue on a regular basis,”<sup>7</sup> while Article 19 stipulates that it is necessary for bioethics committees to be established, one of whose aims would be to “foster debate, education and public awareness of, and engagement in, bioethics.”<sup>8</sup>

Article 23 of the declaration stresses the importance of bioethics education, training and information, holding that, “in particular for young people, States should endeavour to foster bioethics education and training at all levels as well as to encourage information and knowledge dissemination programmes about bioethics.”<sup>9</sup> This is also documented in the Resolutions made in the UNESCO General Conference of 2005, where bioethics features as a key area in which further research and education are necessary in the various social strata worldwide.<sup>10</sup> UNESCO did not only limit itself to

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<sup>5</sup> United Nations Educational, Scientific and Cultural Organization, Division of Ethics of Science and Technology Social and Human Science Sector, *Universal Declaration on Bioethics and Human Rights* (France: UNESCO, 2006).

<sup>6</sup> *Ibid.*

<sup>7</sup> *Ibid.*

<sup>8</sup> *Ibid.*

<sup>9</sup> *Ibid.*

<sup>10</sup> United Nations Educational, Scientific and Cultural Organisation, *Records of the General Conference 33<sup>rd</sup> Session, Volume 1 Resolutions* (Paris: UNESCO, 2005), 71.



recommendations, but even published a *Bioethics Core Curriculum*,<sup>11</sup> a suggested course outline for university level students, the first section of which consists of a proposed syllabus for the teaching of ethics, complete with learning objectives, proposed learning outcomes and program scheme. The second section incorporates study materials for the proposed ethics education programme, complete with readings and publication links, tasks, activities to be carried out in class, group discussion outlines, online resources and links, cases for discussion, all organised in various lesson plans, covering a multitude of topics, to help the educator in his work.<sup>12</sup> A key objective of UNESCO in this area has been the ‘development of international normative standards’<sup>13</sup> so that member countries would be instigated to discuss and share, recognise and implement bioethics education across the board.

UNESCO did not stop at this; it continued by publishing a bioethics programme for children and youths comprising from 3 to 19 years of age, complete with methodology, lesson plans and learning outcomes, together with tasks and useful resources according to age.<sup>14</sup> A second edition followed in 2018.<sup>15</sup> The method outlined in both these publications is student-centred, and is a fair try at providing an international guide by including case studies from various countries and coming from a different environment and cultural background. Lessons plans were devised by different experts whose intent is to cultivate in young students a critical bioethical mind, with the aim of nurturing decision-making from a tender age. One has to acknowledge the fact that UNESCO also gives due importance to teacher training in the field for the bioethics programme to succeed, which implies that the educator is the fulcrum of the desired change.<sup>16</sup>

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<sup>11</sup> United Nations Educational, Scientific and Cultural Organisation, *Bioethics Core Curriculum. Section 1: Syllabus Ethics Education Programme* (Paris: UNESCO, 2008).

<sup>12</sup> United Nations Educational, Scientific and Cultural Organisation, *Bioethics Core Curriculum. Section 2: Study Materials Ethics Education Programme* (Paris: UNESCO, 2011).

<sup>13</sup> United Nations Educational, Scientific and Cultural Organisation, *The UNESCO Universal Declaration on Bioethics and Human Rights: Background, Principles and Application*, ed. Henk AMJ ten Have, and Michele S. Jean (Paris: UNESCO, 2009).

<sup>14</sup> United Nations Educational, Scientific and Cultural Organisation, *The First Syllabus for Youth Bioethics Education*, (University of Haifa, 2017).

<sup>15</sup> United Nations Educational, Scientific and Cultural Organisation, *The First Syllabus for Youth Bioethics Education, 2<sup>nd</sup> Edition*, (University of Haifa, 2018).

<sup>16</sup> United Nations Educational, Scientific and Cultural Organisation, *The UNESCO Universal Declaration on Bioethics and Human Rights: Background, Principles and Application*.

Following the Ethics Education Program of UNESCO which commenced in 2004, 235 teaching programs, covering 43 countries, had been endorsed until 2012.<sup>17</sup> This shows a very positive attitude towards bioethics education, with expansion in the field shown across the board.

### 1.3 Bioethics Education: A Global Perspective

The United States of America has been a pioneer in the introduction of bioethics education in all medical schools since the 1970s. Presently, for a course to be accredited, it has to include bioethics in its curriculum.<sup>18</sup> As regards ethics education in primary schools there are no national requirements. In spite of this, approximately 5000 US schools have participated in an ethics program since 1998. On the other hand, there have been greater struggles to implement bioethics education in high schools since 1990, especially in science subjects. Bioethics has been amalgamated into undergraduate US curricula in a multitude of ways, from the *Conversations in Bioethics* series, to online teaching and *Ethics Bowl* programmes.<sup>19</sup> The *Conversations in Bioethics series* involved students studying a bioethics topic during one semester, and then participating in a seminar where they were addressed by bioethicists in the following semester. This opportunity was given to the entire campus in Georgetown University. This same university has also been proactive in organising an Ethics Lab where students coming from a variety of disciplines joined forces to “address complex problems with both scientific and ethical dimensions.”<sup>20</sup> Another example is the online strategy proposed by the Kennedy Institute of Ethics, one of the oldest centres for bioethics and once again at Georgetown University, which was open on a global scale and included 5000 participants in 2015.<sup>21</sup> The Intercollegiate Ethics Bowl is an extracurricular program which has been functioning since 1996. It is in the form of a competition between

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<sup>17</sup> Henk AMJ ten Have and Bert Gordijn, “Broadening Education in Bioethics,” *Medical Health Care and Philosophy* 15 (February 2012): 99-101, 99.

<sup>18</sup> Henk AMJ ten Have, “Globalisation of Bioethics Education,” in *Bioethics Education in a Global Perspective: Challenges in global bioethics*, ed. Henk AMJ ten Have (Dordrecht: Springer, 2015), 1-22.

<sup>19</sup> Presidential Commission for the Study of Bioethical Issues, *Bioethics for Every Generation: Deliberation and Education in Health, Science, and Technology* (Washington D.C., 2016).

<sup>20</sup> *Ibid.*, 65.

<sup>21</sup> *Ibid.*

different teams from different faculties. They are presented with a case; each team scrutinises it bioethically and then presents the arguments to a judging panel where they are questioned and can even question the other competing team. A final evaluation is then issued.<sup>22</sup>

The Presidential Commission for the Study of Bioethical Issues, the US official advisory board, has issued a very interesting document in 2016: *Bioethics for every Generation: Deliberation and Education in Health, Science, and Technology*. One of the three chapters in this document is entirely dedicated to education, which is the point of interest in the present dissertation. This report recommends bioethics education from the early years, throughout all life stages, obviously adapted accordingly.<sup>23</sup> In fact, studies show that children are capable of moral reasoning as early as at the age of two. The document itself points out that: “Ethics education is best when it builds on itself over time. To build ethics literacy, broad-based ethics education must start early, before students begin to track into more specialized interests and careers.”<sup>24</sup>

Unlike UNESCO, which has devised a proposed curriculum and treats bioethics as a separate subject, the US Commission has put forward the view of bioethics as an integral part of education, ingrained in all subjects taught from preschool to professional schools as an integral part of all curricula. The method used is democratic deliberation which promotes mutual respect and inclusivity while calling for collaboration. It focuses on the acquisition of skills such as critical thinking and moral development, while emphasizing the importance of virtue through scaffolding techniques.<sup>25</sup> The document also calls for the importance of teacher training, teachers of all subjects at all levels, to provide “students with equitable access to ethics education, with an aim of preparing all students for the bioethical questions that might arise during the course of their lives.”<sup>26</sup> For this purpose, the Bioethics Commission has developed a multitude of

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<sup>22</sup> *Ibid.*, 66.

<sup>23</sup> *Ibid.*, 65.

<sup>24</sup> *Ibid.*, 7.

<sup>25</sup> *Ibid.*, 8.

<sup>26</sup> *Ibid.*, 9.

educational aids, and is committed to continue developing more such tools, which are extensive and varying in formats so as to be readily manageable by all kinds of learners.

The Pan American Health Organization (PAHO), which is the Regional Office for the Americas of the World Health Organization (WHO), has founded its Regional Program on Bioethics way back in 1994. This was a great statement, given that WHO would take nine more years to establish its Ethics Unit.<sup>27</sup> The situation in Latin American countries is therefore promising and several countries are promoting initiatives regarding the teaching of bioethics which has become mandatory in healthcare courses at university level.<sup>28</sup> As four countries have a UNESCO Chair in Bioethics, namely Argentina, Peru, Brazil and Mexico, one can clearly state that bioethics is currently present in all Latin American countries through committees and universities, together with national bioethics associations.<sup>29</sup> The challenge faced in Latin America is to acknowledge bioethics through the law, and reinforce issues such as justice and personal autonomy through further education at all levels.<sup>30</sup> One should also point out that as regards general bioethics education, the pioneers in Latin America are Argentina, Brazil, Chile and Colombia, while Bolivia, Ecuador, Honduras and Paraguay lack sufficient manpower to establish bioethics education programmes.<sup>31</sup> International collaboration might be the key to promote progress in this sense, with international partnerships and collaborations to share knowledge and expertise.

UNESCO has also issued guidelines during its 33<sup>rd</sup> General Conference to:

establish a resource centre in Africa to facilitate exchanges among policy-makers, scholars, civil society and other interested parties on ethical, legal and social concerns stemming from advances in the life sciences, especially in bioethics, of particular interest to Africa and other developing regions.<sup>32</sup>

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<sup>27</sup> Carla Saenz *et al.*, "Twelve Years of Fogarty-Funded Bioethics Training in Latin America and the Caribbean: Achievements and Challenges," *Journal of Empirical Research on Human Research Ethics: An International Journal* 9, no.2 (2014): 80-91, 80.

<sup>28</sup> Aida Kemelmajer de Carlucci, "Building our own bioethics, set in context and legality," in *Global Bioethics: What for?*, ed. German Solinis (France: United Nations Educational, Scientific and Cultural Organisation, 2015), 115-118, 116.

<sup>29</sup> *Ibid.*

<sup>30</sup> *Ibid.*, 118.

<sup>31</sup> Carla Saenz *et al.*, "Twelve Years of Fogarty-Funded Bioethics," 88.

<sup>32</sup> United Nations Educational, Scientific and Cultural Organisation, *Records of the General Conference*, 72.

One of the key purposes is to ‘foster ethics education’ and also to publicise bioethics so as to educate and circulate knowledge as much as possible. It is of common understanding that developing countries lack a bioethics infrastructure, let alone an adequate bioethics educational programme. There is a lack of tradition of literature and academic expertise in the area of bioethics in Africa, which is a setback to its progression.<sup>33</sup> Political leaders have ignored bioethical concerns, which explains the fact that some regions in Africa, such as Arabic countries, do not even have a national bioethics committee to foster discussion and guidelines among the public. Only eight out of twenty-two Arab states have some kind of a committee or bioethics board, but there is no evidence of their activity.<sup>34</sup> In such countries there is lack of legislation and further support is needed. Bioethics education is virtually non-existent, and in all the Arab world, only 28 such programmes exist, 27 of which are medical ethics programmes.<sup>35</sup> Many scholars believe that bioethics education is essential in the development of a healthy democratic society, and as stressed by Andoh:

The purpose and aims of education or of any educational initiative are to increase and improve human knowledge, virtue and responsibility. Bioethics education is an essential tool for character development, knowledge, skills and behaviour that serves to enrich students’ moral sensibilities.<sup>36</sup>

It is therefore imperative for African nations to wake up and recognise the importance they should be giving to bioethics education, not only for the benefit of their own communities, but also when considering the global implications given the accelerated scientific progress. Education would also mean the hindrance of ignorance and bioethical illiteracy, which is currently resulting in abuses by the more developed countries. Bioethics education would mean the empowerment of African communities to become at par with what is known as the Western World.

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<sup>33</sup> Cletus T Andoh, “Bioethics Education in Africa: Still Complex Challenges,” *Open Journal of Philosophy* 3, no.4 (2013): 507-516.

<sup>34</sup> Bahaa Darwish, “Promoting the Future of Bioethics,” in *Global Bioethics: What for?*, ed. German Solinis (France: United Nations Educational, Scientific and Cultural Organisation, 2015), 104-110, 107.

<sup>35</sup> *Ibid.*, 109.

<sup>36</sup> Cletus T Andoh, “Bioethics Education in Africa.”

There have been sporadic bioethics education class trials in China, the Philippines, Japan and India that showed interest both from students and their educators.<sup>37</sup> Japanese researchers have been attracted and started to 'import' bioethics ten years after the term was coined in 1970 in America,<sup>38</sup> but up till 2008, Japan acknowledged that there had not been great progress in educational programmes at government level.<sup>39</sup> Despite this, a 2010 extensive survey found bioethics modules in 138 out of 197 degree courses in Japanese institutions, which is quite positive when considering that in other courses references to bioethics was made as part of a module as well.<sup>40</sup> In the 1980s Medical Ethics was introduced in China, where at first Western Ethics was being considered, until The Chinese Society of Medical Ethics was established in 1988, and the Chinese perspective began to be incorporated, thus making it more relevant.<sup>41</sup> The inequalities of the Chinese healthcare system, with less than 30% of the population having access to a reliable source of water, brought about the need for further education and legislation in 2004.<sup>42</sup> As Mary Josephine Rani and M Selvanayagam have pointed out, "People need to be taught more about how to make ethical decisions, and the educational system should accommodate this need of modern society."<sup>43</sup>

In New Zealand bioethics has been part of the National Curriculum since 1994, and is mostly addressed in biology classes, mostly in the form of medical ethics.<sup>44</sup> Similarly, in Sri Lanka bioethics is mostly dealt with in the form of medical ethics, where a formal

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<sup>37</sup> Darryl Macer, "Bioethics Education for Informed Citizens Across Cultures," *School Science Review* 86, no.315 (December 2004): 83-86.

<sup>38</sup> Tako Takahashi, "A Synthesis of Bioethics and Environmental Ethics Founded upon the Concept of Care: Toward a Japanese Approach to Bioethics," in *Taking Life and Death Seriously – Bioethics from Japan* (2015), 19-45, 22.

<sup>39</sup> Masamichi Minehata, and Nariyoshi Shinomiya, "Japan: Obstacles, Lessons and Future," in *Education and Ethics in the Life Sciences*, ed. Brian Rappert (ANU Press, 2010), 93-114, 96.

<sup>40</sup> *Ibid.*

<sup>41</sup> Michael Barr, and Joy Yueyue Zhang, "Bioethics and Biosecurity Education in China: Rise of a Scientific Superpower," in *Education and Ethics in the Life Sciences*, ed. Brian Rappert (ANU Press, 2010), 115-130.

<sup>42</sup> *Ibid.*, 119.

<sup>43</sup> Mary Josephine Rani, and M Selvanayagam, "Benefits and ethical limits of transgenic animals," in *Asia Pacific Perspectives on Biotechnology and Bioethics*, ed. UNESCO Bangkok Regional Unit for Social and Human Science in Asia and the Pacific (Bangkok: UNESCO, 2008), 58-64, 64.

<sup>44</sup> Lindsey Conner, "Why knowledge development is important in Bioethics education," in *Asia Pacific Perspectives on Bioethics Education*, ed. Daniel Calderbank (Thailand: UNESCO Asia and Pacific Regional Bureau for Education, 2008), 1-8.

programme of education was introduced in 1995.<sup>45</sup> Taiwan has tackled the concept of holistic cross-curricular education from the early years, and has incorporated bioethics across the curriculum as “a multidisciplinary learning of how to practice a moral life”<sup>46</sup> and “an indispensable part to accomplish the objective of life education.”<sup>47</sup>

According to a study carried out in 2013, the situation of bioethics education in Pakistan, as a representative of an Islamic Eastern country, leaves much to be desired.<sup>48</sup> Whereas the Pakistan Medical and Dental Council has stipulated bioethics to be mandatory in undergraduate courses, evidence shows that only 39% of the undergraduate institutions have some bioethical education, and this drops to 5% at postgraduate level.<sup>49</sup> In fact, there are only three graduate level bioethics courses being offered in the whole of Pakistan, one at a diploma level (started in 2006), and two at masters level (one of which started in 2008, the other in 2009).<sup>50</sup> In such developing countries one tends to find that there are a lack of resources in public healthcare, therefore making bioethics education a luxury in the context of their needs, which most would agree it should not be.<sup>51</sup> One could also view the lack of education as an opportunity to develop a bioethical structure based on the expertise of other more advanced countries, with the help of international organisations such as WHO and UNESCO. Bioethics should not be imposed, but developed as an intrinsic value relative to the cultural and social variables of the respective community.

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<sup>45</sup> Anoja Fernando, “Teaching ethics and humanities to medical students in Sri Lanka: A multi-cultural approach,” in *Asia Pacific Perspectives on Bioethics Education*, ed. Daniel Calderbank (Thailand: UNESCO Asia and Pacific Regional Bureau for Education, 2008), 38-41.

<sup>46</sup> Dana Hsin Sin-Chen, “To accomplish the life education mission through bioethics courses in a medical school in Taiwan,” in *Asia Pacific Perspectives on Bioethics Education*, ed. Daniel Calderbank (Thailand: UNESCO Asia and Pacific Regional Bureau for Education, 2008), 49-52, 49.

<sup>47</sup> *Ibid.*

<sup>48</sup> Saima Rasool *et al.*, “Bioethics Education, Awareness of Ethics and Dissemination of Knowledge among Teachers and Students,” *Journal of Biological Research and Applied Sciences* 4, no. 2 (2013): 20-32.

<sup>49</sup> *Ibid.*

<sup>50</sup> Aamir Hussain, “Bioethics Education Initiative in Pakistan,” *Medicolegal and Bioethics* 6 (March 2016): 1-2.

<sup>51</sup> Asad J Raja, and Daniel Wikler, “Developing Bioethics in Developing Countries,” *Journal of Health, Population and Nutrition* 19, no.1 (2001): 4-5.

## 1.4 The European Picture

As opposed to the United States approach towards bioethics which is primarily based on the principle of autonomy, “in Europe, bioethics is very much based on the principle of solidarity, as well as freedom, tolerance, equal opportunity, social justice and human dignity.”<sup>52</sup> Indeed, Rendtorff has argued that the basic European bioethical principles are autonomy, dignity, integrity and vulnerability (which of course calls for solidarity).<sup>53</sup> In 1991 the Group of Advisers on the Ethical Implications of Biotechnology was set up by the Commission of the European Union, while a year later, the Steering Committee on Bioethics was officially established.<sup>54</sup> Various educational projects have been launched since then, some of which are school-based and suggest holistic cross-curricular teaching and learning, like ETHKA<sup>55</sup> which advocates ethics and values education in schools and kindergartens, and which has published a complete program to be followed in European schools from the age of three to the age of fifteen, including thirteen methodologies complete with learning outcomes and examples. This program has also issued a policy paper, recommending a “common framework for developing ethics and values education into the EU Member States.”<sup>56</sup>

Other endeavours like the Ethics and Young Entrepreneurs in Europe project,<sup>57</sup> and Project Beagle,<sup>58</sup> are more targeted towards a particular cohort, which can be seen as very positive because Europe has understood the importance of ethics and is tackling its dynamic and diverse aspects. The Council of Europe has published *Bioethical Issues*

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<sup>52</sup> “Medical ethics and bioethics in Europe: Definitions and approaches,” Alzheimer Europe, last modified October 9, 2009, <https://www.alzheimer-europe.org/Ethics/Definitions-and-approaches/Medical-ethics-and-bioethics-in-Europe>.

<sup>53</sup> Jacob Dahl Rendtorff, “Basic Ethical Principles in European Bioethics and Biolaw: Autonomy, Dignity, Integrity and Vulnerability -Towards a Foundation of Bioethics and Biolaw,” *Medical Health Care Philosophy* 5, no.3 (2002): 235-244.

<sup>54</sup> *Ibid.*

<sup>55</sup> Bruno Ćurko *et al.*, *ETHIKA. Ethics and Values Education in Schools and Kindergartens*, (Ljubljana, Bologna, Granada, Zadar, Graz, Nuremberg, Marburg: Erasmus+, 2017).

<sup>56</sup> Thomas Pfeil *et al.*, *ETHIKA. Ethics and Values Education in Schools and Kindergartens Policy Paper*, (Ljubljana, Bologna, Granada, Zadar, Graz, Nuremberg, Marburg: Erasmus+, 2017).

<sup>57</sup> “Objectives,” EYEE Ethics and Young Entrepreneurs in Europe, accessed October 12, 2019, <https://eyee.eu/objective/>.

<sup>58</sup> Agency for Mobility and EU Programmes, “Bioethical Education and Attitude Guidance for Living Environment,” accessed October 12, 2019, <https://beagleproject.eu/about/>.



*Educational Fact Sheets*<sup>59</sup> as a teaching aid in 2009, closely following UNESCO's *Bioethics Core Curriculum* in its intent, which document is aimed for older secondary school and sixth form students taking biology, philosophy and civic education.

As education has been one of the most challenging areas where new ideas and technological developments are leading to continuous progressive transformation in methodology and assessment, the need of teacher training has been felt especially in recent years. Antoniya Yanakieva and colleagues emphasize this aspect when discussing how bioethics education should be integrated in contemporary schools in Europe, arguing that:

The development of new training styles in schools, compliant with the European community framework, needs modernization and harmonization in regard to standards for professional competence of teachers and educators in the European Union, international collaboration extensions and exchange of experience. In order to construct European identity of the educational programs, their efficacy should include common values in the Universal Declaration of Bioethics of UNESCO.<sup>60</sup>

One can say that bioethics education has been growing in importance in the European Union, but it needs to progress further. Different standards in different countries are leading to misconceptions, qualitative discrepancies and lack of training. In some countries such as France it is treated as a cross-curricular subject, whilst in other states such as Germany, Lithuania, Hungary, Malta, Poland and Slovakia ethics is treated as an optional subject.<sup>61</sup> In European states such as Latvia, Switzerland, Liechtenstein, Norway and Turkey ethics is integrated into another compulsory subject or subjects, but it is not treated as a distinct discipline.<sup>62</sup> This leads to a discussion regarding to what extent it is being integrated, which can vary immensely from one country to another, and even from one school to another. In Slovenia, ethics is a compulsory separate subject.<sup>63</sup> Variations also exist at undergraduate and post-graduate levels, where

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<sup>59</sup> Council of Europe, *Bioethical Issues Educational Fact Sheets. Everything you need to lead a classroom a debate*, (Strasbourg: Council of Europe Publishing, 2009).

<sup>60</sup> Antoniya Yanakieva *et al.*, "Implementing of Education in Bioethics at Contemporary Schools – Factor for Healthy Lifestyle of the Growing Up Generation," *Journal of International Medical Association Bulgaria* 25, no. 1 (2019): 2362-2368, 2362.

<sup>61</sup> European Commission, *Citizenship Education at School in Europe 2017, Eurydice Report*, (Luxembourg: Publications Office of the European Union, 2017).

<sup>62</sup> *Ibid.*

<sup>63</sup> *Ibid.*

programs vary in intensity and duration, not to mention content, where in the majority bioethics is understood to be medical ethics, and is therefore associated with biology, sciences and medical courses.

In Malta a study-unit in bioethics has been offered by the Faculty of Theology at the undergraduate level for decades, since the 60's. At that time, the study-unit was entitled: *Health and Theology*. Later on, when the word bioethics was introduced, the study-unit was entitled *Bioethics*.<sup>64</sup> Since the 70s, the Faculty of Theology offered its service to the Faculty of Medicine and Surgery in healthcare issues to medical students. A Masters in Bioethics started to be offered by the Faculty of Theology since 2008, with 60 graduates<sup>65</sup> and 38 students currently registered for the programme of studies.<sup>66</sup> Added to these are 7 students who obtained a Postgraduate Diploma in Bioethics, and another 2 students with a Postgraduate Certificate in Bioethics.<sup>67</sup>

The need for more training in bioethics is currently on the European agenda, with programmes such as Bioethics in Europe; an undergraduate course offered in different European Universities and monitored by the UNESCO in collaboration with the European Division Unit Members.<sup>68</sup> International collaboration and standardisation within the European realm is necessary in establishing minimum bioethical education standards, which have been proven to be vital in a person's cognitive development, as shall be discussed in the following chapter.

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<sup>64</sup> Personal communication with Rev. Prof. Emmanuel Agius, former Dean of the Faculty of Theology, who has lectured extensively in bioethics throughout the years.

<sup>65</sup> L-Universita' ta' Malta, "Number of Students who Completed Awards," accessed June 6, 2020, <https://www.um.edu.mt/about/facts/numbers/graduates>.

<sup>66</sup> L-Universita' ta' Malta, Student Statistics by F/I/C/S, Course & Route - 2019/0, accessed June 6, 2020, [https://www.um.edu.mt/\\_\\_data/assets/pdf\\_file/0008/420749/Students19-20.pdf](https://www.um.edu.mt/__data/assets/pdf_file/0008/420749/Students19-20.pdf).

<sup>67</sup> L-Universita' ta' Malta, "Number of Students who Completed Awards," accessed June 6, 2020, <https://www.um.edu.mt/about/facts/numbers/graduates>.

<sup>68</sup> UNESCO Chair in Bioethics (Haifa), "European Division Initiatives," accessed October 12, 2019, <https://ed-unesco-bioethics.org/activity-page-2/>.

# CHAPTER 2: Bioethics Education – at what age?

## 2.1 Educational Psychology – an Overview

Although it is adults who produce the most useful artifacts, establish and run cultural institutions, and whose cooperation and competition permit the continuation and advancement of society, the intellectual and social abilities used to achieve these outcomes develop over infancy and childhood and also evolved over the course of many millennia.<sup>1</sup>

There is a general global consensus that humans are the most educatable from all earthly species, and that this education is life-long. Whilst in the more industrialised cultures education is mostly meant to be in the form of direct instruction, or curricular activities, in more traditional cultures learning occurs through the social environment, mostly through observation and is therefore more informal.<sup>2</sup> This cultural transmission from one generation to the other involved “passing on the values and traditions of the tribe or community to the next generation.”<sup>3</sup> The main focus of this pre-formal education was on values and skills, rather than knowledge. As Jennifer Gidley, the post-formal psychologist and futures researcher points out, “It is only in the last two to three hundred years that pre-formal enculturation of children by their families and tribes has been replaced by formal school education for the majority.”<sup>4</sup> Nowadays, a paradigm shift is evident where scholars are seeing more value in what was done in the past, where more credit is being given to passing on values and skills, which are timeless, rather than knowledge, most of which will become irrelevant until children reach adulthood.

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<sup>1</sup> David F Bjorklund *et al.*, “The Adaptive Value of Cognitive Immaturity: Applications of Evolutionary Developmental Psychology to Early Education,” in *Evolutionary Perspectives on Child Development and Education*, ed. David C Geary, and Daniel B Berch (Switzerland: Springer International Publishing, 2016), 3-32, 3.

<sup>2</sup> *Ibid.*, 7.

<sup>3</sup> Jennifer M Gidley, *Postformal Education: A Philosophy for Complex Futures* (Switzerland: Springer International Publishing, 2016), 17.

<sup>4</sup> *Ibid.*

The Swiss psychologist Jean Piaget (1896-1980), considered by many to be the ‘father of developmental psychology’, contemplated a theory where “all individuals develop over time from birth to adulthood through various stages of cognitive development.”<sup>5</sup> Piaget’s writings were an inspiration to various other child psychologists, amongst others Barbel Inhelder (1913-1997), and Lev Vygotsky (1896-1934), although ironically educational psychologists did not take up his work until the 1960s.<sup>6</sup> It is important for the purposes of this dissertation, however, to go into Piaget’s four stages of cognitive development. The first stage is the ‘sensori-motor stage’ which takes place in a child’s first two years of life as it is the pre-language stage where learning is affective rather than cognitive.<sup>7</sup> The next stage is the pre-operational stage, which is further divided by Piaget into two periods: the symbolic and preconceptual thought in the first part close to two years of age, and the intuitive thought period at a later instance closer to seven years of age. At the age of between two and four, a child develops symbolic and preconceptual thought and learns prevalently through imitation, then from the age of four up till the age of around seven a child grows towards intuitive reasoning.<sup>8</sup> Successively, the child enters the third stage of cognitive development, the concrete operations stage, running between seven or eight years to about eleven or twelve years of age. In this stage the child still reasons in terms of objects rather than hypothesis, and reasoning is dependent on concrete content.<sup>9</sup> The last of the Piagetian stages is Formal Operations, and this is the stage where an adolescent starts reasoning in terms of possibilities and hypothesis, and is the stage where the highest goal of formal compulsory education is reached.<sup>10</sup>

Lev Vygotsky’s theories have also been central to the dialogue about cognitive development, especially his socio-cultural approach, the notion of the ‘zone of proximal development’ and the theory of ‘scaffolding’. Unlike the Swiss psychologist, who holds that cognitive development is essentially universal, Vygotsky strongly argues that

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<sup>5</sup> *Ibid.*, 46.

<sup>6</sup> Gidley, *Postformal Education*, 46.

<sup>7</sup> *Ibid.*, 49.

<sup>8</sup> *Ibid.*, 50.

<sup>9</sup> *Ibid.*

<sup>10</sup> *Ibid.*

cognitive development is culture dependent.<sup>11</sup> The Russian psychologist is therefore synonymous with social constructivism, while Piaget is compelled towards personal constructivism.<sup>12</sup> Vygotsky claims that children’s cognitive development varies according to the learning environment, and also states that children learn within their zone of proximal development, that is, they construct knowledge of their own through sociocultural interaction, often with a more knowledgeable other who offers ‘scaffolding’. It is easy, therefore, to see how Vygotsky’s ideas give due importance to the learning community.<sup>13</sup>

John Dewey (1944) believed that education always happens through the environment<sup>14</sup> and this line of thought has been translated into modern educational strategies till today. It is worth mentioning other leading 20th-century developmental psychologists who have impacted the educational narrative as it stands today, and these include “Sigmund Freud (1856–1939) who proposed the theory of psycho-sexual stages of development, Erik Erikson (1902–1994) who extended Freud’s psycho-sexual stages into eight psychosocial stages and Jane Loevinger (1918–2008) who built on Erikson’s work to develop a theory of levels of ego development.”<sup>15</sup> For the purpose of this dissertation, however, it is not essential to go into depth into these last theories as they are not directly related to the study.

## 2.2 The Development of Moral Reasoning in Children

Understanding cognitive development is a very complex area of study since, as Patricia King has put it so well, it:

encompasses a great many theories, constructs and approaches, including intelligence, scientific problem-solving, metacognition, motivation to learn, learning styles, brain research, and many kinds of cognitive activities. Similarly, the

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<sup>11</sup> Saul McLeod, “Simply Psychology: Lev Vygotsky,” last modified August 5, 2018, <https://www.simplypsychology.org/vygotsky.html>.

<sup>12</sup> Dennis M McInerney, “Educational Psychology – Theory, Research, and Teaching: A 25-year retrospective,” *Educational Psychology* 25, no.6 (2005): 585-599, 591.

<sup>13</sup> Saul McLeod, “Simply Psychology: Lev Vygotsky”.

<sup>14</sup> Patricia M King, “Principles of Development and Developmental Change Underlying Theories of Cognitive and Moral Development,” *Journal of College Student Development* 50, no. 6 (2009): 597-620, 613.

<sup>15</sup> Gidley, *Postformal Education*, 63.

study of morality is also a broad domain, including character development, empathy, altruism, and spirituality, among others.<sup>16</sup>

Development is defined as “the evolution of skills over time”<sup>17</sup> which implies a process of organising higher-level skills after mastering lower-level skills, and through the process of consolidation and application individuals reach a new level of understanding. Historically, developmental and educational philosophers and psychologists have based their works on one of two ideologies: the Aristotelian view asserting moral formation as a matter of character development, and the Kantian ideology asserting moral formation as a matter of cognitive development.<sup>18</sup> Sometimes the truth is found to be somewhere in between, as David Carr who is an advocate for a virtue ethics approach to character education like Aristotle, and also believes in moral formation according to Kantian principles argues, “although there are other senses in which human agents may be regarded as persons, the most significant sense in which they are persons is that in which they are moral agents.”<sup>19</sup>

Humans, compared to other species, take a relatively long time to reach cognitive maturity. According to the cognitive immaturity hypothesis proposed by David F Bjorklund “infants’ and young children’s cognitive and perceptual abilities are well-suited for their particular time in life and are not simply incomplete versions of the adult form.”<sup>20</sup> This therefore implies that as regards morals, children acquire moral standards according to their level of understanding, and apply them to situations that they encounter in their daily activities; they “actively construct and organise their interpretations of their experiences.”<sup>21</sup> The implication of this is that morals develop at

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<sup>16</sup> King, “Principles of Development,” 598.

<sup>17</sup> *Ibid.*

<sup>18</sup> Daniel K Lapsley, “Moral Self-Identity as the Aim of Education,” in *Handbook of Moral and Character Education*, ed. Larry P Nucci, and Darcia Narvaez (New York and London: Routledge, 2008), 30-51, 30.

<sup>19</sup> David Carr, “Moral and Personal Identity,” *International Journal of Education and Religion* 2, no.1 (2001): 79-97; cited by Daniel K Lapsley, “Moral Self-Identity as the Aim of Education,” in *Handbook of Moral and Character Education*, ed. Larry P Nucci, and Darcia Narvaez (New York and London: Routledge, 2008), 30-51, 31.

<sup>20</sup> David F Bjorklund *et al.*, “The Adaptive Value of Cognitive Immaturity: Applications of Evolutionary Developmental Psychology to Early Education,” in *Evolutionary Perspectives on Child Development and Education*, ed. David C Geary, and Daniel B Berch (Switzerland: Springer International Publishing, 2016), 3-32, 3.

<sup>21</sup> King, “Principles of Development,” 600.

par with cognitive development. At this point, one may thus cite Vygotsky who argued that “conversation is the root of higher thought ... thought is internalized conversation; actual conversations with other people get it started.”<sup>22</sup> The implication here is that at the onset of language, children also start to question right and wrong, which is also the first sign of moral reasoning. Piaget and Vygotsky viewed children as “partners in their own learning and socialisation” so through interaction with others, children assimilate and construct their own learning, including the moral aspect to it.<sup>23</sup>

One of Jean Piaget’s most significant works in the area of social and moral development is *The Moral Judgement of the Child*. Written in 1932, it has formed the basis of most moral education methods being used nowadays.<sup>24</sup> The Swiss psychologist believes that young children are essentially self-centred, but as cognitive development leads to moral development, these children eventually shift from a heteronomous to an autonomous person, taking other people’s perspectives into consideration when taking moral decisions.<sup>25</sup> The first stage of moral development, the heteronomous morality stage, occurs from four to seven years, while autonomous morality is demonstrated by older children of around ten years of age.<sup>26</sup>

Lawrence Kohlberg attempted to define moral growth with six age related developmental stages,<sup>27</sup> where “judgements of self-responsibility play a motivational role ... but such judgements are a developmental achievement as well.”<sup>28</sup> Kohlberg believes that one acts morally if one understands the prescriptive consequences of moral law; for Kohlberg moral principles are “auto motivating for the responsible self

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<sup>22</sup> Peter Gray, “Children’s Natural Ways of Educating Themselves Still Work: Even for the Three Rs,” in *Evolutionary Perspectives on Child Development and Education*, ed. David C Geary, and Daniel B Berch (Switzerland: Springer International Publishing, 2016), 67-94, 76.

<sup>23</sup> Marilyn Watson, “Developmental Discipline and Moral Education,” in *Handbook of Moral and Character Education*, ed. Larry P Nucci, and Darcia Narvaez (New York and London: Routledge, 2008), 175-203, 196.

<sup>24</sup> Carolyn Hildebrandt *et al.*, “Constructivist Approaches to Moral Education in Early Childhood,” in *Handbook of Moral and Character Education*, ed. Larry P Nucci, and Darcia Narvaez (New York and London: Routledge, 2008), 352-369, 354.

<sup>25</sup> *Ibid.*

<sup>26</sup> Corruption Prevention and Education Division ICAC, *Promoting Moral Development through Play During Early Childhood* (Republic of Mauritius: The Mauritius College of the Air Reduit, 2007), 6.

<sup>27</sup> Lawrence Kohlberg, “Early Education: A Cognitive-Developmental View,” *Child Development* 39, no. 4 (1968): 1013-1062.

<sup>28</sup> Daniel K Lapsley, “Moral Self-Identity,” 33.

who understands them.”<sup>29</sup> The American psychologist eventually created three models; ‘moral stages’, ‘moral types’, and ‘socio-moral atmosphere levels’ which together provide a more comprehensive approach. He was the one who coined the term ‘hidden curriculum’, referring to those hidden agendas and norms present in every classroom, and through which a great part of actual learning occurs. Lawrence tried to find strategies in which one could use the ‘hidden curriculum’ to instil in the students a sense of justice and fairness, based on democratic practices.<sup>30</sup> Kohlberg’s theory therefore finds foundation in justice and social reciprocity. It has been widely criticised for being too focused on reasoning and rationality while neglecting attributes such as empathy and the perspectives of women.<sup>31</sup> Other critics have stated that “Kohlberg’s theory is too narrowly defined around justice and individual rights” at the expense of “equally valid conceptions of morality, including those based on perspectives of divinity, community, or interpersonal care.”<sup>32</sup>

In his *Patterns in Intellectual and Ethical Development* (1970), William Perry, describes a scheme of development addressing both intellectual and ethical development. The renowned French educational psychologist describes how during his studies he noticed patterns in ‘the making of meaning’ about the students’ ‘unfolding views of the world.’<sup>33</sup> Perry’s scheme talks about the development of ‘forms’ or ways of thinking through nine positions within a continuum, the first five positions concentrating on intellectual development, whilst the last four positions on ethical development.<sup>34</sup>

Charles Taylor, the renowned Canadian philosopher, believes that it is an elementary human ambition to be attached and oriented towards the ‘good’, and that everyone

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<sup>29</sup> *Ibid.*

<sup>30</sup> Carolyn Hildebrandt *et al.*, “Constructivist Approaches to Moral Education in Early Childhood,” 357.

<sup>31</sup> King, “Principles of Development,” 611. See Carol Gilligan, “In a Different Voice: Women’s Conceptions of Self and Morality,” *Harvard Educational Review* 47, no. 4 (1977): 481-517; Carol Gilligan, “Moral Injury and the Ethic of Care: Reframing the Conversation about Differences,” *Journal of Social Philosophy* 45, no. 1 (2014):89-106, 89.

<sup>32</sup> Anne Colby, “Fostering the Moral and Civic Development of College Students,” in *Handbook of Moral and Character Education*, ed. Larry P Nucci, and Darcia Narvaez (New York and London: Routledge, 2008), 391-413, 394.

<sup>33</sup> King, “Principles of Development,” 602.

<sup>34</sup> *Ibid.*, 604.



aspires to become a 'functional moral agent.'<sup>35</sup> Along the same line of thought, Professor Augusto Blasi argues that self-identity is based upon the moral commitments of an individual, and that moral standards are the basis of self-understanding and therefore essential to who one is as a person. One's moral identity is here seen as one's essence.<sup>36</sup> Daniel Hart proposed a model in 2005 where he suggests there is 'plasticity in moral identity development' where moral identity is subject to lifelong review wherever given the opportunity.<sup>37</sup> According to Hart, therefore, lifelong bioethical education makes more sense as he believes that a person can always modify his or her moral perceptions and values if given the chance.

William Damon has suggested that moral education "should follow the knowledge we have about the nature of children's moral development" and as a basic footing for moral education programmes, the American professor has put forward six principles: social interactions, natural emotional reactions, interactions with adults, peer relations, variations in social experience, and cognitive processes. In a nutshell, Damon believes that "children acquire moral values by actively participating in adult-child and peer relationships that support, enhance and guide their moral tendencies."<sup>38</sup>

Despite there being various studies trying to define and describe the processes of moral development, this is a controversial issue, resulting in a lack of a 'comprehensive model of moral functioning'<sup>39</sup> which is widely accepted internationally, because morality is a complex phenomenon with many facades and expressions including, amongst others, philosophical, psychological, research and cultural traditions, thus leading to many sub-strata. The Four Component Model of Morality developed by James Rest and colleagues further tries to explain this interconnectedness between morality, cognition and social action.<sup>40</sup> This model suggests four distinct psychological processes, namely: 'moral sensitivity'; 'moral judgement or reasoning'; 'moral motivation and identity

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<sup>35</sup> Daniel K Lapsley, "Moral Self-Identity," 34.

<sup>36</sup> *Ibid.*, 35.

<sup>37</sup> *Ibid.*, 38.

<sup>38</sup> Corruption Prevention and Education Division ICAC, *Promoting Moral Development through Play During Early Childhood* (Republic of Mauritius: The Mauritius College of the Air Reduit, 2007), 8.

<sup>39</sup> King, "Principles of Development," 609.

<sup>40</sup> *Ibid.*

formation'; and 'moral courage or character', and is based on 'softer schemas' as opposed to 'hard stages'.<sup>41</sup> When analysing the different theories and models one realises the effect formal and informal education can have on the moral and ethical development of small children, and therefore its importance.

## 2.3 The Benefits of Bioethical Education in the Early Years

There is a general consensus in modern society that for a child to be instructed in the best schools with the best teachers and latest technology possible, and to flourish academically is the ultimate objective for children, and their only 'work-oriented' objective in childhood. To study is a child's official job. Society tends to measure a child's worth by the grades obtained at school, and by the qualifications achieved upon school-leaving. Academic success is closely linked to professional success and there is a tendency for adults to sustain this narrative and therefore reinforce it. Peter Gray has encapsulated this contemporary idea of education in the following words:

The dominant assumption of education policy makers is that increased academic instruction is necessary for success in our culture. It may not be pleasant, but, like bad-tasting medicine, it is a necessary means to overcome a malady, in this case the malady of ignorance. There seems also to be the assumption that, for this medicine, more is always better. If a certain amount of instruction doesn't produce the results we want, then the solution must be to provide more of it. Blindly we continue on this track, with little thought about possible harmful effects of overdose.<sup>42</sup>

This type of formal schooling was brought about by August Hermann Francke in Prussia at the beginning of the seventeenth century, and the first standardised curriculum was developed, turning around a time-table and fixed classroom rules including rows with tables and chairs facing one teacher. The objectives were three: to teach reading so that children could read the Bible, to teach religious doctrine, and to break the children's will and therefore produce obedient and unquestioning citizens.<sup>43</sup> Formal schooling in this particular era put character education at a side and prioritised

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<sup>41</sup> James Rest *et al.*, "A Neo-Kohlbergian Approach: The DIT and Schema Theory," *Educational Psychology Review* 11, no.4 (1999): 291-324.

<sup>42</sup> Peter Gray, "Children's Natural Ways of Educating Themselves Still Work: Even for the Three Rs," in *Evolutionary Perspectives on Child Development and Education*, ed. David C Geary, and Daniel B Berch (Switzerland: Springer International Publishing, 2016), 67-94, 68.

<sup>43</sup> *Ibid.*

a standardised literacy program for a number of years, later giving rise to renewed emphasis on 'moral literacy' and the idea that schooling should also focus on character formation and ethical behaviour.<sup>44</sup>

Nowadays, the education system strives to produce the precise opposite: inquisitive and discerning citizens who are able to rationally analyse the problems they face and provide solutions that make sense both to them as individuals, but also in relationship with their society, culture and environment. Modern perspectives have changed such that skills are being prioritised as opposed to knowledge education, also considering that schooling is only a small part of the holistic education of an individual, which apart from being a lifelong process, consists not only of the set formal curriculum, but of all the informal narratives which make up unique individuals. According to Lupien and colleagues, "the early caregiving environment influences the development of many basic systems such as stress reactivity, impacting physical and mental health outcomes later in life."<sup>45</sup>

Jonathan Cohen suggests that "social-emotional skills, knowledge, and dispositions provide the foundation for participation in a democracy and improved quality of life."<sup>46</sup> Cohen argues that the goals of education need to be reframed to prioritize not only academic learning, but also social, emotional, and ethical competencies and asserts that "social, emotional, ethical, and academic education is a human right that all students are entitled to, and argues that ignoring this amounts to a social injustice."<sup>47</sup> In fact, various researchers have shown that "research-based social, emotional, ethical, and academic educational guidelines can predictably promote the skills, knowledge, and dispositions that provide the foundation for the capacity to love, work, and be an active community member" and, furthermore, it has been scientifically proven that ethical

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<sup>44</sup> Merna M McMillan *et al.*, "Children's literature: Teaching critical thinking and ethics," *The Reading Teacher* 41, no.9 (1988): 876-878, 876.

<sup>45</sup> Markus Christen *et al.*, "Moral Development in Early Childhood is Key for Moral Enhancement," *American Journal of Bioethics and Neuroscience* 3, no.4 (2012): 25-26, 25.

<sup>46</sup> Jonathan Cohen, "Social, Emotional, Ethical, and Academic Education: Creating a Climate for Learning, Participation in Democracy, and Well-Being," *Harvard Educational Review* 76, no.2 (2006): 201-237, 201.

<sup>47</sup> *Ibid.*

education from the pre-school level enhances academic results in children and provides the foundation for effective life-long learning and well-being.<sup>48</sup>

There is an ongoing debate as to whether ethical behaviour is part of the biological evolution of human beings, and as such should develop naturally as the child grows; or if bioethics should be consciously taught, with most researchers concluding that it is a complex combination of the two ideas. As one author points out: “If we believe that emotions need not be unregulated impulses for acting out, then we need to empower individuals with capacities to reflect on their emotions so that they can begin to assess the reasonableness of the judgements implicit in their emotions.”<sup>49</sup>

Advances in neuroscience are contemporarily shedding more light on the dilemma, and developmental psychology “is revealing that human babies are hardwired to empathize with good actors who demonstrate helpfulness and to avoid bad actors who impede the goals of others,” and they show such empathy and fairness at an extremely early age.<sup>50</sup> As early as the age of two, children show signs of intrinsic benevolence, readiness to help others and be kind; they are inclined to keep ‘the well-being of those around them’ regardless of parental influence. By the age of three, children start showing signs of sympathy and become “sensitive to the justifiedness of another person’s distress.”<sup>51</sup>

The study of the functions of the human brain, however, is still at its infancy and assessing development can therefore prove to be complicated and gives way to multiple interpretations. In fact, in one such study Markus Christen and colleagues write:

Humans are born with only 25% of the brain developed (reaching about 90% complete by age 5 years; Trevathan 2011). Much of early experience involves the co-construction of brain circuitries through interactions with caregivers that have a direct bearing on moral functioning later. Examples are subcortical emotion systems of ‘play’ and ‘care’ (Panksepp 1998) and cortical areas of the prefrontal cortex, such as the orbitofrontal cortex and the anterior cingulate cortex (Schore

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<sup>48</sup> *Ibid.*, 202.

<sup>49</sup> Nancy Sherman, “Character Development and Aristotelian Virtue,” in *Virtue Ethics and Moral Education*, ed. David Carr, and Jan Steutel (London and New York: Routledge, 2005), 35-50, 46.

<sup>50</sup> Lisa M Lee *et al.*, “Teaching Bioethics,” *Hastings Center Report* 44, no.5 (2014): 10-11, 11.

<sup>51</sup> Robert Hepach, “Motive for Young Children’s Developing Concern for Others’ Well-Being as a Core Motive for Developing Prosocial Behavior,” in *Dual-Process Theories in Moral Psychology*, ed. Cordula Brand (Germany: Springer Fachmedien Wiesbaden, 2016) 101-118, 112.

2013). Initial conditions of human development and the epigenetic and developmental plasticity of brain/body have long-term consequences for well-being and morality (Narvaez 2008).<sup>52</sup>

The moral sensitivity of an individual “is initiated during infancy, constructed and consolidated through experiences during childhood and adolescence.”<sup>53</sup> Bioethics education as a means to enhance moral sensitivity in students is considered as “the most controversial goal of ethics education in terms of the possibility of its being achieved; still many researchers and authors see that ethics education can and do[es] improve students’ moral behaviour.”<sup>54</sup> Moral education can be viewed as having two facets; an external one which helps the individual relate to others, and an internal one which is the basis of self-realisation.<sup>55</sup> Blasi suggests that children “should develop the proper moral desires as second-order volitions; and to master the virtues of self-control and integrity.”<sup>56</sup>

Various scholars, amongst whom Kochanska and colleagues, Clark and Ladd, argue that the process of ethical education begins with a quality parent-child relationship way before formal schooling sets in,<sup>57</sup> and this serves as a foundation for ethical education later on. Professor Clark Power’s model of the moral self further highlights the significance of the scholastic environment to instil moral ideas and standards in children.<sup>58</sup> Power has worked closely with Kohlberg in the area of moral development and education, and has researched on the psychology of religious development. As the

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<sup>52</sup> Markus Christen *et al.*, “Moral Development in Early Childhood is Key for Moral Enhancement,” *American Journal of Bioethics and Neuroscience* 3, no.4 (2012): 25-26, 25; citing Trevathan, W R, *Human Birth: An Evolutionary Perspective, Second Edition* (New York: Adeline de Gruyter, 2011); Narvaez D, J Panksepp, A Schore, and T Gleason (Eds.). *Evolution, early experience and human development: From research to practice and policy*. (New York: Oxford University Press, 2013).

<sup>53</sup> Corruption Prevention and Education Division ICAC, *Promoting Moral Development through Play During Early Childhood* (Republic of Mauritius: The Mauritius College of the Air Reduit, 2007), 5.

<sup>54</sup> Bahaa Darwish, “How Effective Can Ethics Education Be?”, in *Bioethics Education in a Global Perspective: Challenges in global bioethics*, ed. Henk AMJ ten Have (Dordrecht: Springer, 2015), 109-117, 112.

<sup>55</sup> Thomas Wren, “Philosophical Moorings,” in *Handbook of Moral and Character Education*, ed. Larry P Nucci, and Darcia Narvaez (New York and London: Routledge, 2008), 11-29, 11.

<sup>56</sup> Daniel K Lapsley, “Moral Self-Identity,” 43.

<sup>57</sup> *Ibid.*, 44.

<sup>58</sup> F Clark Power, and Ann Higgins-D’Alessandro, “The Just Community Approach to Moral Education and the Moral Atmosphere of the School,” in *Handbook of Moral and Character Education*, ed. Larry P Nucci, and Darcia Narvaez (New York and London: Routledge, 2008), 230-247.

Brazilian educator Paolo Freire puts it, there cannot be education without ethics, values and the possibility of change.<sup>59</sup> Yet, the method used is crucial for according to Piaget, “educators can promote the development of mature moral reasoning by talking with children as equal collaborators in the search for knowledge. Educators who speak with indoctrinative authority, however, will promote the consolidation of childish reasoning.”<sup>60</sup>

Emile Durkheim emphasises the importance of ‘collective socialisation’ or ‘cultural transmission’ whereby a child assimilates society’s norms and expectations and thus tries to adhere to this societal norm in order to function in society. This French author, acknowledged as the father of sociology, believes that formal schooling further reinforces society’s ideas and is a further means of control, a control which is seemingly internalised voluntarily into the classroom.<sup>61</sup> Durkheim further identified three goals for moral education, namely: a ‘spirit of discipline’, ‘attachment to social groups and the spirit of altruism’, and ‘autonomy or self-determination’ which is seen as the ultimate target.<sup>62</sup>

Darcia Narvaez strongly asserts that “character education should be based on psychologically valid research.”<sup>63</sup> The Professor of Psychology at Notre Dame University has presented a model of character development and education, also known as Integrative Ethical Education (IEE), that identifies character as a set of skills which she believes can be improved through a continuum from early childhood until a level of expertise is reached.<sup>64</sup>

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<sup>59</sup> Jo Cairns, “Morals, Ethics and Citizenship in Contemporary Teaching,” in *Education for Values: Morals, Ethics and Citizenship in Contemporary Teaching*, ed. Roy Gardner, Jo Cairns, and Denis Lawton (Great Britain: Kogan Page Limited, 2005), 7-26, 14.

<sup>60</sup> John Snarey *et al.*, “Moral Education in the Cognitive Developmental Tradition: Lawrence Kohlberg’s Revolutionary Ideas,” in *Handbook of Moral and Character Education*, ed. Larry P Nucci, and Darcia Narvaez (New York and London: Routledge, 2008), 53-79, 56.

<sup>61</sup> *Ibid.*

<sup>62</sup> *Ibid.*, 57.

<sup>63</sup> James Arthur, “Traditional Approaches to Character Education in Britain and America,” in *Handbook of Moral and Character Education*, ed. Larry P Nucci, and Darcia Narvaez (New York and London: Routledge, 2008), 80-98, 92.

<sup>64</sup> *Ibid.*

Constructivist approaches to early childhood education promote children's development both in standard subjects such as sciences, languages and arts, but more importantly intellectually, physically, socially, emotionally and morally. The term 'constructivist' dates back to Piaget's theory of development, for the Swiss psychologist argues that children "construct their knowledge and intelligence through interactions with their physical and social worlds."<sup>65</sup> Piaget in fact emphasises the importance that small children are given the opportunities to co-operate with their peers in solving problems, to confront children having perspectives which differ from their own, and in so doing promote fairness and mutual respect. This approach is deeply ingrained in John Dewey's teachings from the late nineteenth and early twentieth centuries, and its target is to create a 'sociomoral atmosphere' where children build relationships which lead them to become 'autonomous life-long learners.'<sup>66</sup> This approach sees children construct their own learning through first-hand experiences where the classroom acts as the replica of society. The teacher acts as a facilitator who provides appealing situations to her students, whilst enhancing conflict resolution and decision making in a child-centred environment through games, hypothetical dilemmas, children's literature, real-life events, together with social and moral discussion. The American educational reformer believed in freedom in education, and that "moral education should be fully integrated with other areas of the curriculum and should deal with real-life issues that are of interest and importance to children."<sup>67</sup> William Bennett, however, one of America's most respected voices on educational issues, criticizes the constructivist approach because of its "emphasis on children's choices, decisions, deliberations, and judgments"<sup>68</sup> since he believes they would not necessarily be understanding such narratives.

Elliot Turiel and colleagues extended Piaget's and Kohlberg's theories by putting forward three domains of knowledge, namely, the moral, the social conventional and

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<sup>65</sup> Carolyn Hildebrandt *et al.*, "Constructivist Approaches to Moral Education in Early Childhood," in *Handbook of Moral and Character Education*, ed. Larry P Nucci, and Darcia Narvaez (New York and London: Routledge, 2008), 352-369, 352.

<sup>66</sup> *Ibid.*

<sup>67</sup> *Ibid.*, 355.

<sup>68</sup> *Ibid.*, 359.

the personal, where, as described by Carolyn Hildebrandt and colleagues, moral issues are meant to be those “pertaining to justice, welfare, and the rights of others.”<sup>69</sup> The difference between the social conventional domain approach and Kohlberg’s social domain approach is that Kohlberg assumes that adolescents have not yet mastered and constructed principles such as justice, while the social cognitive domain research has proven that the notions of equality and fairness are acquired at a very early age, even at preschool level.<sup>70</sup> That is why such moral issues should be tackled in the primary classroom by applying them to daily classroom feats, such as physical harm, emotional displays and issues regarding fairness and justice. In pre-school and early years settings they could be portrayed through basic classroom rules, table manners, friendship, choice, sharing and respect for others to mention just a few. As Hildebrandt points out, it is of vital importance to start the process of moral education at the earliest possible, both within their personal social context, and in relationship with formal schooling “because young children generate their initial understandings of morality out of direct experiences in social interactions, the primary contribution of schools is to help children frame these experiences in moral terms.”<sup>71</sup>

Various researchers suggest that ethical education should start from the pre-school level, and be consistent throughout elementary, middle and high school, and even afterwards in college and at university level, so that children grow into citizens holding a strong moral character. For, as Matthew Davidson points out, “moral character enables us to treat others — and ourselves — with respect and care and to act with integrity in our ethical lives.”<sup>72</sup> Moral character also “has the important job of moderating our performance goals to honour the interests of others, to ensure that we

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<sup>69</sup> *Ibid.*, 357.

<sup>70</sup> Stacey S Horn *et al.*, “Peer Relationships and Social Groups: Implications for Moral Education,” in *Handbook of Moral and Character Education*, ed. Larry P Nucci, and Darcia Narvaez (New York and London: Routledge, 2008), 267-290, 272.

<sup>71</sup> Carolyn Hildebrandt *et al.*, “Constructivist Approaches to Moral Education in Early Childhood,” 359.

<sup>72</sup> Matthew Davidson *et al.*, “Smart & Good Schools: A New Paradigm for High School Character Education,” in *Handbook of Moral and Character Education*, ed. Larry P Nucci, and Darcia Narvaez (New York and London: Routledge, 2008), 370-390, 374.



do not violate moral values such as fairness, honesty, and caring in the pursuit of high performance.”<sup>73</sup>

The American Presidential Bioethics Commission argues that bioethics education in the early years is crucial in establishing an ethical foundation which should then be reinforced throughout the education process. This will lead to an array of professionals in various disciplines having a rigorous ethical mindset, preventing ‘ethical surprises and obstacles’ causing inadequate suffering and uncertainty.<sup>74</sup> Education experts believe that the “transmission of moral and ethical values through education has a direct impact on the quality of the societies we build and the quality of life of children as they grow into adult citizens.”<sup>75</sup> Education is hereby seen as “the harmonious development of the whole person” which is “inseparable from social, external, and internal realities. Ethics brings these ingredients together.”<sup>76</sup>

Paolo Martena is clear: “The school’s mission is not only to instruct but also to educate; it cannot escape, therefore, from asking: ‘What is the right way for the spread of universal ethical principles?’”<sup>77</sup> Teaching inevitably involves moral actions, and as so many educational philosophers and psychologists have argued, as a moral agent the teacher is responsible for the ethical interaction in the classroom.<sup>78</sup> As Rauni Räsänen points out, one cannot omit ethical implications from schooling, because as she explains, “educational institutions are socially and culturally constructed and therefore are inevitably involved with major political, moral and economic dimensions.”<sup>79</sup> The aim of educators, therefore, is to provide ways that promote the overall development of the person in a holistic way, and in view of this one cannot omit the development of a

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<sup>73</sup> *Ibid.*

<sup>74</sup> Lisa M Lee *et al.*, “The Presidential Bioethics Commission: Pedagogical Materials and Bioethics Education,” *The Hastings Center Report* 43, no.5 (2013):16-19, 16.

<sup>75</sup> Albanian Center for Economic Research, *Ethics in the Albanian Education System* (Tirana: Mirgeeralb, 2017), 26.

<sup>76</sup> *Ibid.*, 30.

<sup>77</sup> Paolo Martena, “A case study: “The Earth Charter” in Middle Schools Bioethics Education,” *International Journal of Ethics Education* 1 (2016): 137-144, 138.

<sup>78</sup> Orly Saphira-Lishchinsky, “Teachers’ Critical Incidents: Ethical dilemmas in teaching practice,” *Teaching and Teacher Education* XXX (2010): 1-9, 1.

<sup>79</sup> Rauni Räsänen, “Teachers’ Ethics, Teacher Education and Changing Horizons,” in *Ethical Challenges for Teacher Education and Teaching*, ed. Vappu Sunnari, and Rauni Räsänen (Oulu: Faculty of Education University of Oulu, 2000), 168-178,168.

person's integrity and moral values which will mark a person's character and behaviour. And this should be provided from the pre-school level, and consolidated through the student's educational journey, possibly with active parental involvement throughout the process just as in any other learning situation. As pointed out earlier, the onset of moral development has been proven to be very early, and that is why one should not wait for formal schooling to start transmitting ethical values to one's children. Bahaa Darwish advocates ethics education and explains that "when ethics is introduced to students as a discipline that helps giving justified reasons for decisions or actions and consistently apply certain principles, it can lead to moral change and ethics education can, then, be made effective."<sup>80</sup> One might find it hard to understand why the author is advocating the importance of bioethics education and not ethics education. Bioethics gives the student an added perspective, a slate where one can apply ethical theories and give them a bioethical dimension. As discussed earlier in this chapter, some scholars like Kohlberg are of the idea that adolescents cannot process notions such as fairness and justice, but others have proven the contrary, and moreover stress that children as young as toddlers start processing such ethical principles. This is why Rui Nunes and colleagues believe that bioethics education would be the ideal, because of its vast remit and relevance in today's changing society. They argue that:

Education for bioethics may be an important contribution to this goal, in a transversal perspective and in accordance with a wide scope of topics ranging from human rights to health education, or environmental ethics which constitute the emerging concerns of today's society. Once the human being is the central reference in society, education should become a phenomenon of interpersonal relationships whose content are values, information, knowledge, feelings, attitudes and skills, which aim to promote the development of a full human person.<sup>81</sup>

Having seen how different scholars view cognitive and moral development in young children, the author tends to shift towards the school of thought believing in early intervention as regards bioethics education. It is understood that in the early years the children would be introduced to the basic ethical principles according to their

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<sup>80</sup> Bahaa Darwish, "How Effective Can Ethics Education Be?", in *Bioethics Education in a Global Perspective: Challenges in global bioethics*, ed. Henk AMJ ten Have (Dordrecht: Springer, 2015), 109-117, 116.

<sup>81</sup> Rui Nunes *et al.*, "Education for values and bioethics," *Springer Open Journal* 4, no.45 (2015): 1-8, 1.

development stage, while more complex bioethical dilemmas would be introduced later on during the secondary years when adolescents can process such complex information. In the next chapter the author will be analysing the Maltese curricula, identify any lacunae and analyse how bioethical issues are being tackled in Maltese schools and at what age.

# CHAPTER 3: The Maltese Curriculum and Bioethics

## 3.1 The Early and Junior Years

Although the term bioethics is virtually non-existent in the Maltese curricula, teachers are unknowingly including and incorporating bioethical issues in their lessons. Presently, bioethics, is being experienced across the curriculum, even from the tender ages of kindergarten, even though it is not officially recognised as a cross-curricular subject and without ever being mentioned as a learning-outcome. This comes as no surprise however, since the general feeling in society is that these bioethical issues should be prioritised and taken into account as they form part of a person's daily routine. One might not be aware that one is dealing with bioethics, because the word is not used in day-to-day language, but people cannot avoid facing bioethical issues on a day-to-day basis. Surprisingly enough, even though Malta does have its own National Bioethics Committee, the general public is mostly unaware of its existence, and moreover of its remit. Education from early on both through compulsory schooling and through various media platforms is crucial to raise awareness and create a healthy debate in the Maltese society and make them aware of what bioethics is all about and its importance.

One of the five learning outcomes in levels one and two of the kindergarten curriculum deals precisely with ethics. Learning outcome number 3, in fact, addresses fundamental ethical principles such as empathy, fairness and justice. Although this is not essentially bioethics, the author feels it is a good start off. Children need to be exposed to such values before being able to apply them accordingly. In the kindergarten curriculum one can find the following achievement goal:

3.2 Children who develop empathy, respect and acceptance of different points of view.

1. I respond positively to the feelings and wishes of others.
2. I am caring and show concern towards others.
3. I start to demonstrate awareness of the rights of others.

4. I am interested in other people and their stories.
5. I show a sense of fairness and respect towards others.
6. I listen to others' ideas and respect their contributions.<sup>1</sup>

Level 3 of the kindergarten curriculum continues to build on the previous outcomes, and teachers are expected to help the children “develop a strong sense of identity”, where until the end of the kindergarten years, therefore by the age of five, they should “develop empathy, respect and acceptance of different points of view,” “develop an awareness of the notions of fairness, a sense of justice and non-preferential treatment,” and “learn to collaborate with peers and adults with diverse backgrounds and needs.”<sup>2</sup> If this is not proof enough of the importance ethical discourses are given in the Maltese kindergarten curriculum, during the first of the four CoPE sessions for kindergarten assistants during the last scholastic year (2018-2019) the educators were asked to read and reflect on the Convention on the Rights of the Child so as to include the convention’s goals within the respective learning outcomes.<sup>3</sup>

When reaching Level 4, that is by the time the children are in year 1 at primary level, the sense of ethical self-analysis is further stressed, always without actually acknowledging the term ‘ethics’ per se. Environmental ethics is introduced, and the educator is encouraged to promote environmental sustainability, critical thinking and problem solving related to ethical concepts such as dignity, self-determination, respect, collaboration, respect for different religions and spirituality, awareness of different needs and abilities, cultivating a sense of empathy, justice and fairness, developing an idea of equality, human rights and inclusion.<sup>4</sup>

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<sup>1</sup> Education Officers Early Years, “Learning Outcomes – Levels 1 & 2,” last modified April, 2018, [https://curriculum.gov.mt/en/syllabi\\_as\\_from\\_sept\\_2018/Documents/Early\\_Years/Kinder\\_1\\_and\\_2\\_Level\\_1\\_and\\_2\\_LOP\\_Sept\\_2018.pdf](https://curriculum.gov.mt/en/syllabi_as_from_sept_2018/Documents/Early_Years/Kinder_1_and_2_Level_1_and_2_LOP_Sept_2018.pdf).

<sup>2</sup> Education Officers Early Years, “Learning Outcomes – Level 3,” last modified February, 2018, [https://curriculum.gov.mt/en/syllabi\\_as\\_from\\_sept\\_2018/Documents/Early\\_Years/Kinder\\_1\\_and\\_2\\_Level\\_3\\_LOP\\_Sept\\_2018.pdf](https://curriculum.gov.mt/en/syllabi_as_from_sept_2018/Documents/Early_Years/Kinder_1_and_2_Level_3_LOP_Sept_2018.pdf).

<sup>3</sup> Directorate for Learning and Assessment Programmes, “Cope Session Notes for KGEs 2018-2019,” accessed January 11, 2020, <https://education.gov.mt/en/early-years/Documents/CoPE%20session%20notes%20for%20KGEs%202018-2019.pdf>.

<sup>4</sup> Ministry for Education and Employment, Parliamentary Secretariat for the EU Presidency 2017 and EU Funds, *Educators’ Guide for Pedagogy and Assessment – using a learning outcomes approach –*

The National Curriculum Framework also encompasses ethical issues in “helping children to regard social justice and solidarity as key values in the development of the Maltese society.”<sup>5</sup> It recognises the importance for learners to become “engaged citizens who are able to strive for social justice in constantly changing local, regional and global realities.”<sup>6</sup> In the science curriculum, however, it is only when children reach year 5 that man’s actions towards the environment are reviewed in learning outcome 5.3.1,<sup>7</sup> and further in year 6 when the concept of environmental ethics is explored in learning outcome 6.3.1.<sup>8</sup> So although smaller children are exposed somewhat to basic ethical principles, the students start applying these principles bioethically at the age of 9 to 10 years. Apart from this aspect, no other bioethical issue is discussed.

On the contrary, the social studies syllabus addresses environmental ethics from the first year through the geographical learning outcomes, in addition to the notion of ‘self-awareness’ and ‘a sense of belonging’ through the social learning outcomes.<sup>9</sup> In Year 2, students move towards a better understanding of the human being as a social being, and they begin to develop a sense of empathy towards other members of their group.<sup>10</sup> The program continues to expand every year, where students are encouraged to discuss ethical issues such as empathy, democracy and environmental ethics which are a common factor throughout the social studies learning outcomes framework for the

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*Toolkit for the Early Years Cycle (0-7 Years)*, (Malta: Directorate for Quality and Standards in Education, 2015).

<sup>5</sup> Ministry of Education and Employment, *A National Curriculum Framework for All 2012*, (Malta: Salesian Press, 2012), iii.

<sup>6</sup> *Ibid.*, 7.

<sup>7</sup> Curriculum Department, Floriana, “Primary Science: Syllabus for Primary Schools. Learning Outcomes for Year 5,” accessed January 18, 2020, [https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr\\_syllabi/syllab\\_pr\\_prscienceyear5.pdf](https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr_syllabi/syllab_pr_prscienceyear5.pdf).

<sup>8</sup> Curriculum Department, Floriana, “Primary Science: Syllabus for Primary Schools. Learning Outcomes for Year 6,” accessed January 18, 2020, [https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr\\_syllabi/syllab\\_pr\\_prscienceyear6.pdf](https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr_syllabi/syllab_pr_prscienceyear6.pdf).

<sup>9</sup> Dipartiment tal-Kurrikulu, Floriana, “Studji Soċjali – Sillabu tal-Iskejjel Primarji – L-Ewwel Sena,” accessed January 30, 2020, [https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr\\_syllabi/syllab\\_pr\\_socialstudiesyear1.pdf](https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr_syllabi/syllab_pr_socialstudiesyear1.pdf).

<sup>10</sup> Dipartiment tal-Kurrikulu, Floriana, “Studji Soċjali – Sillabu tal-Iskejjel Primarji – It-Tieni Sena,” accessed January 30, 2020, [https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr\\_syllabi/syllab\\_pr\\_socialstudiesyear2.pdf](https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr_syllabi/syllab_pr_socialstudiesyear2.pdf).

primary years.<sup>11</sup> Importance is also given to certain values, such as rights and duties, with a special emphasis on the right to education, for example, in Year 5. At this age, students are also encouraged to think ethically about what activities are good for them, and others that are bad, with special emphasis on physical and mental activity.<sup>12</sup> In the Year 6 Social Studies Syllabus, students are exposed to the ethics of social networks, the difference between rules and laws and their implications in everyday life, and their social and ethical impact. During this particular scholastic year, they also discuss a citizen's basic human rights, and one's right for appeal when one's rights are breached, together with this scenario's moral and ethical implications. In this last primary year, students are encouraged to make environmentally sustainable choices, therefore discussing environmental ethics with special emphasis on waste management choices, and even go into business ethics by discussing advertising, local and international commerce in view of their moral and environmental implications. They even go into the ethics behind migration, refugees and missionary work, and even mention the ethics behind journalism and news portals.<sup>13</sup>

The Personal and Social Development Programme for Primary Schools also deals with ethical issues extensively. This programme starts from Year 1, and “involves providing children with skills and processes involved in becoming happy and fulfilled individuals in a healthy and supportive environment”<sup>14</sup> where “through their socialisation process, children should begin to take more responsibility for their behaviour.”<sup>15</sup> During the primary years students learn to reflect on their ‘self’ and appreciate their uniqueness, therefore leading to value the human life while learning to

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<sup>11</sup> Dipartiment tal-Kurrikulu, Floriana, “Studji Soċjali – Primarja – Livell 5 – It-Tielet Sena,” accessed January 30, 2020, [https://primarysocialstudies.skola.edu.mt/wp-content/uploads/2019/05/Social\\_Studies\\_Yr03\\_Syllabus\\_Sept\\_2018.pdf](https://primarysocialstudies.skola.edu.mt/wp-content/uploads/2019/05/Social_Studies_Yr03_Syllabus_Sept_2018.pdf).

<sup>12</sup> Dipartiment tal-Kurrikulu, Floriana, “Is-Sillabu tal-Istudji Soċjali għall-Ħames Sena Primarja,” accessed January 30, 2020, [https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr\\_syllabi/Social\\_Studies\\_Yr05\\_Syllabus\\_Sept\\_2019.pdf](https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr_syllabi/Social_Studies_Yr05_Syllabus_Sept_2019.pdf).

<sup>13</sup> Dipartiment tal-Kurrikulu, Floriana, “Is-Sillabu tal-Istudji Soċjali Għas-Sitt Sena Primarja,” accessed January 30, 2020, [https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr\\_syllabi/Social\\_Studies\\_Yr06\\_Syllabus\\_Sept\\_2019.pdf](https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr_syllabi/Social_Studies_Yr06_Syllabus_Sept_2019.pdf).

<sup>14</sup> Curriculum Department, Floriana, “Personal and Social Development. Syllabus for Primary Schools – Rationale,” accessed January 30, 2020, [https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr\\_syllabi/syllab\\_pr\\_psdrationale.pdf](https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr_syllabi/syllab_pr_psdrationale.pdf).

<sup>15</sup> *Ibid.*

empathise with their classmates, friends, family and society at large at the same time as exploring different relationships. The methodology itself also links with bioethical education, with teaching methods including the development of skills such as “listening, turn-taking, responding, resolving simple moral dilemmas, and dealing with feelings of injustice.”<sup>16</sup> Thinking skills are the fulcrum of the PSD course at primary level, while also exploring political ethics, democracy, equality and justice, together with “interpersonal issues such as independence, self-confidence and maturity”. During the late primary years, students are led to ponder on the effect of their choices on local, national and global levels. They are also exposed to dealing with transitions as part of the human life, while acquiring new competencies which would help them critically and morally analyse their reactions and choices.<sup>17</sup>

The Religious Education Learning Outcomes Framework starts addressing environmental ethics from year 1 through objectives 1.8, 1.10, 1.13 and 1.14. The sense of respect for diversity and human dignity is also introduced in year 1 through learning outcome 3, while the concept of equality is introduced through learning outcome 4.<sup>18</sup> The concepts of values and the difference between right and wrong is explored throughout the religious education learning outcome framework. In year 2 the sense of duty is introduced,<sup>19</sup> and one can obviously link this to the ethical dimension of deontology which finds its roots in Kantian principles. These moral values continue to be explored during the junior years where, for example, in Year 5, students discuss the issues of equal opportunities, honesty and loyalty, rights and duties, responsibilities, the concept of self-actualisation and self-determination.<sup>20</sup> In year 6 the concept of

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<sup>16</sup> *Ibid.*

<sup>17</sup> *Ibid.*

<sup>18</sup> Is-Segretarjat għall-Katekezi, “Is-Sillabu tal-Edukazzjoni Religjuża għall-Ewwel Sena Primarja,” last modified June 30, 2013, [https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr\\_syllabi/syllabus\\_pr\\_religion\\_yr1\\_2013.pdf](https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr_syllabi/syllabus_pr_religion_yr1_2013.pdf).

<sup>19</sup> Directorate for Learning and Assessment Programmes, “Il-Programm għall-Edukazzjoni Religjuża għat-Tieni Sena tal-Primarja,” accessed January 18, 2020, [https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr\\_syllabi/syllabus\\_pr\\_religion\\_yr2\\_2014.pdf](https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr_syllabi/syllabus_pr_religion_yr2_2014.pdf).

<sup>20</sup> Is-Segretarjat għall-Katekezi, “Is-Sillabu tal-Edukazzjoni Religjuża għall-Ħames Sena Primarja,” last modified June 30, 2013, [https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr\\_syllabi/syllabus\\_pr\\_religion\\_yr5\\_2013.pdf](https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr_syllabi/syllabus_pr_religion_yr5_2013.pdf).



citizenship is discussed during the Religious Education sessions in addition to all the other ethical issues covered during the previous years.<sup>21</sup>

Ethics Education Lessons introduce concepts of empathy, fairness and equality from the start in year 1, when the subject is first introduced to children who opt out from Religious Education. It starts with appreciating the self, one's 'uniqueness and individuality' within the moral community with the use of "stories, media production, materials for drawing, pasting, collaging, possibly a cartoon story, video material" amongst others.<sup>22</sup> In year 2, children explore friendship and "the values associated with it; loyalty, truthfulness, respect, sensitivity to the needs of others, solidarity, help, and so on"<sup>23</sup> and are also introduced to the idea of a moral community, with special reference to rights and obligations, authority and equality. By Year 3, concepts of self-consciousness as social beings and the moral status as persons are explored. More complex notions like the principle of reciprocity, animal rights, joint custodianship, individual narratives and environmental ethics are explored. In Year 4, the ideas of justice, own retribution, forgiveness, merit and punishment, the process of thinking are discussed. Students are exposed to values such as honesty, trust and respect, the sense of virtue, lying and deceit and their moral implications, truth, courage and moderation, egoism and moral blindness, moral dilemmas, analytical and reflective thinking. By Year 5 (8 to 9 year olds) ethical themes are reinforced with discussions about intrinsic and extrinsic values, the idea of being a person of moral worth, moral law, the difference between judging persons and judging actions, the notions of moral approval and moral responsibility. The idea of free will is introduced, the concept that certain values vary according to our upbringing, tolerance, the idea of universal values and rights, political ethics and the language of a human rights approach begin to be explored. At this age

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<sup>21</sup> Directorate for Learning and Assessment Programmes, "Is-Sillabu għall-Eżami tas-Sitt Sena tal-Primarja għas-Sugġett tar-Reliġjon għas-Sena Skolastika 2012-2013," last modified October 26, 2012, [https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr\\_syllabi/syllabus\\_pr\\_religion\\_yr6\\_2013.pdf](https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr_syllabi/syllabus_pr_religion_yr6_2013.pdf).

<sup>22</sup> Directorate for Learning and Assessment Programmes, "The Primary Programme, Primary Programme A (4-7)," accessed January 29, 2020, [https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr\\_syllabi/curric\\_pr\\_ethics\\_yr1.pdf](https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr_syllabi/curric_pr_ethics_yr1.pdf).

<sup>23</sup> Directorate for Learning and Assessment Programmes, "Yr 2 Age 5-6," accessed January 29, 2020, [https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr\\_syllabi/curric\\_pr\\_ethics\\_yr2.pdf](https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr_syllabi/curric_pr_ethics_yr2.pdf).

the notion of virtue also continues to be reinforced through “narrative, exposition, discussion, exploration of ideas, comparison and contrast.”<sup>24</sup> During Year 6, students go more in depth discussing pluralistic societies, different religions, secular humanism, and the notion of conscience.<sup>25</sup> The programme is intended to take the students “deeper into the three different religions identified as being the most significant for Maltese history and society, namely Christianity, Judaism, and Islam”,<sup>26</sup> and explores their traditions and their moral authority or ethical behaviour. The students are introduced to the notion of ‘ethical individualism’ and ‘moral autonomy’ through the study of secular humanism and the relationship of science to the religious and secular approaches.<sup>27</sup>

One appreciates the fact that although Maltese young students are being exposed to various ethical ideas and considerations, they are not going into any depth nor acquiring debating skills required to scrutinise bioethically. It fails one’s understanding how so many Maltese students are currently being deprived of these bioethical processes. In the author’s opinion every child has a right to this type of applied ethical education, especially in an era where holistic education is being preached. Ethical processes are the basis of our cognitive appreciation of ourselves and our immediate environment. At the time when the National Curriculum Framework was launched in 2012, there was a general consensus that although Ethics would be introduced as a subject, it would be an optional subject instead of Religious Education (which in Malta is linked to the Roman Catholic Faith), and up till today this is still the local scenario in schools at all levels.

In the National Curriculum Framework there are six cross-curricular themes, to be exact: literacy, digital literacy, learning to learn and co-operative learning, education for

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<sup>24</sup> Directorate for Learning and Assessment Programmes, “Yr 5 (Age 8-9),” accessed January 30, 2020, [https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr\\_syllabi/curric\\_pr\\_ethics\\_yr5.pdf](https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr_syllabi/curric_pr_ethics_yr5.pdf).

<sup>25</sup> Directorate for Learning and Assessment Programmes, “Ethics Programme Objectives,” accessed January 21, 2020, [https://curriculum.gov.mt/en/Curriculum/Year-9-to-11/Documents/curric\\_f3\\_f5/ethics\\_prog\\_objectives.pdf](https://curriculum.gov.mt/en/Curriculum/Year-9-to-11/Documents/curric_f3_f5/ethics_prog_objectives.pdf).

<sup>26</sup> Directorate for Learning and Assessment Programmes, “Year 6 (Age 9-10),” accessed January 30, 2020, [https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr\\_syllabi/curric\\_pr\\_ethics\\_yr6.pdf](https://curriculum.gov.mt/en/Curriculum/Year-1-to-6/Documents/pr_syllabi/curric_pr_ethics_yr6.pdf).

<sup>27</sup> *Ibid.*

sustainable development, education for entrepreneurship, creativity and innovation, and education for diversity.<sup>28</sup> This is where the author feels bioethics education should be introduced, as a cross-curricular subject together with education for sustainable development which is an integral part of bioethics education. Although not formally recognised as bioethics, the national curriculum framework outlines the importance of ‘values’ throughout the learning process.

### 3.2 The Secondary Years

One would consider that during middle and secondary school education in Malta bioethics should be a compulsory unit for all students, considering that all students take science as a compulsory subject in their middle school years, while in senior school physics is compulsory, and chemistry and/or biology are taken as an optional subject. In fact, listed as one of the purposes of science education in the 2011 consultation document, one encounters the following statements:

Science education provides an opportunity for learning what scientists have done and what they are doing to answer these questions and enables students to consider the ethical and moral implications of science. Furthermore, scientific literacy empowers citizens to initiate change and actively participate in decision making fora.<sup>29</sup>

When dealing with older students, the same document highlights that one of the outcomes should be that “an understanding of the link of science with everyday life may not simply consider scientific principles, but also other issues such as ethical, economic, social and moral issues.”<sup>30</sup> Whether this bioethical appraisal is being met is far from certain, as it is not being effectively translated into our national syllabi.

The National Curriculum Framework suggests that when addressing science and technology lessons “competence in science also involves an understanding of the changes caused by human activity and the responsibility of individual citizens,”<sup>31</sup> with a

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<sup>28</sup> Ministry of Education and Employment, *A National Curriculum Framework for All 2012*, (Malta: Salesian Press, 2012), 10.

<sup>29</sup> Ministry of Education, Employment and the Family, *A Vision for Science Education in Malta: Consultation Document 2011*, (Malta: Salesian Press, 2011), 25.

<sup>30</sup> *Ibid.*, 41.

<sup>31</sup> Ministry of Education and Employment, *A National Curriculum Framework for All 2012*, 35.

further direct reference to ethics in that the students learn to “link science to daily living and the local environment, and develop an interest in ethical issues and a respect for safety and sustainability.”<sup>32</sup> The discourse of sustainable development is further tackled through geography lessons, where students are encouraged to reflect on their decisions and ponder on the possible consequences of their actions, both on a local and on a global level. In this way students learn to make informed decisions which are consequently good for them and for the environment. Through health and physical education lessons, “educators are encouraged to collaborate with parents and the wider community to ensure meaningful and long-lasting experiences in order to inculcate a deep understanding of ‘self’, ‘other’ and the impact of choices and actions upon individuals, communities and the environment.”<sup>33</sup>

In Year 7 and Year 8 all students have compulsory home economics lessons in which, as part of their learning outcomes, students also focus on developing “their knowledge, understanding and application of human needs and the interdependence of individuals and groups and the influence of aesthetic, social, cultural and economic factors, values and beliefs in a sustainable environmental climate.”<sup>34</sup> Students also go into the ethics of food production and food waste, while understanding the importance of a healthy lifestyle by critically scrutinising the choices they make. They learn to “develop the knowledge and skills required to make reasoned and informed decisions related to the organization and management of resources and human potential in order to satisfy the needs of individuals within the family group and the global community.”<sup>35</sup> These home economics lessons also “provide meaningful experience and opportunities, including the acquisition of technological capabilities for personal fulfilment in empowerment, advocacy, creative, sensory and practical skills.”<sup>36</sup> This course is based on the socio-ecological model which namely revolves around the guiding principles of problem-

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<sup>32</sup> *Ibid.*

<sup>33</sup> *Ibid.*

<sup>34</sup> Department for Curriculum, Lifelong Learning and Employability, “Home Economics Syllabus Year 7 and Year 8,” last modified September, 2018, [https://curriculum.gov.mt/en/syllabi\\_as\\_from\\_sept\\_2018/Documents/Year\\_07\\_08/Home\\_Economics\\_Yr07\\_Yr08\\_Syllabus\\_Sept\\_2018.pdf](https://curriculum.gov.mt/en/syllabi_as_from_sept_2018/Documents/Year_07_08/Home_Economics_Yr07_Yr08_Syllabus_Sept_2018.pdf).

<sup>35</sup> *Ibid.*

<sup>36</sup> *Ibid.*

solving, sustainability, advocacy and connectedness.<sup>37</sup> One can therefore assert that these lessons have a bioethical relevance which is quite pronounced, especially when dealing with environmental and health issues, which most of the time are not self-centred but geared towards a global dimension.

As the author has already pointed out for the primary years, Personal Social and Career Development lessons give students an ethical exposure to a certain extent. This pattern continues for the secondary years, where students learn how to deal with their emotions, explore similarities and differences between people by reflecting on stereotypes and prejudice while reflecting and practising conflict-management skills.<sup>38</sup> The students also learn about data protection, abuses of drugs and other substances and about making responsible choices. Critical and ethical thinking skills always feature during these lessons, as are values like responsibility, rights and duties, empathy, inclusion and love. At the age of thirteen, students also discuss sexual and reproductive health, and are also asked to reflect on sustainable development with reference to environmental ethics.<sup>39</sup> In Year 10, students are encouraged to reflect on the ethical use of technology, healthy relationships with special mention of gender issues, always within the realm of respect and dignity. Students reflect on how personal values influence sexual choices.<sup>40</sup> These Personal Social and Career Development lessons also make the students aware of work ethics, promoting cooperation, tolerance, teamwork and self-esteem. They also learn to recognise the difference between illegal and immoral, wants and needs, while also reflecting on business and advertising ethics.<sup>41</sup> In Year 11, students consolidate the values they were exposed to during the whole course, while going into sensitive issues such as abortion, blood and organ donation, adoption

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<sup>37</sup> *Ibid.*

<sup>38</sup> Directorate for Quality and Standards in Education – Curriculum Management Department, “Personal, Social and Career Development Curriculum Units – Form 3,” accessed January 30, 2020, [https://curriculum.gov.mt/en/Curriculum/Year-9-to-11/Documents/curric\\_f3\\_f5/syllabus\\_pscd\\_f3.pdf](https://curriculum.gov.mt/en/Curriculum/Year-9-to-11/Documents/curric_f3_f5/syllabus_pscd_f3.pdf).

<sup>39</sup> *Ibid.*

<sup>40</sup> Directorate for Quality and Standards in Education – Curriculum Management Department, “Personal, Social and Career Development Curriculum Units – Form 4,” accessed January 30, 2020, [https://curriculum.gov.mt/en/Curriculum/Year-9-to-11/Documents/curric\\_f3\\_f5/syllabus\\_pscd\\_f4.pdf](https://curriculum.gov.mt/en/Curriculum/Year-9-to-11/Documents/curric_f3_f5/syllabus_pscd_f4.pdf).

<sup>41</sup> *Ibid.*

and fostering, the value of education and work, the value of voluntary organisations. They also discuss rights, duties and responsibilities of employers and employees, with reference to a code of ethics. They revisit the topic of sexual and reproductive health and rights, and are now exposed to dealing with illness and bereavement.<sup>42</sup>

Although religious education is directly associated with the Roman Catholic Religion, aspects of bioethics are directly involved in many of the themes discussed in class. As stressed in the National Curriculum Framework, “religious Education seeks to educate young people regarding the dignity of the human being and the responsibility of each individual towards others for the building of a better society and a better world.”<sup>43</sup> This national framework recognises that religious education is meant to focus on enhancing a sense of ‘spiritual self’, developing an individual identity through learning about different cultures in a pluralistic society, whilst promoting “values that include justice, personal responsibility, respect, reflection and active engagement in moral issues.”<sup>44</sup> The key phrase in this quotation is ‘active engagement’ and that is what bioethics should be about; about keeping students actively engaged in debating and scrutinising topical and current issues related to biotechnology and biology, which if considered in its wider sense as explained in the introduction of this dissertation, should keep students of all ages hooked to seek deeper answers through bioethical inquiry.

As already outlined for junior years, students and their parents or guardians can opt not to follow a Religious Education course, and instead follow an Ethics programme. It has to be said that numbers opting for Ethics as a subject has been increasing yearly since the launching of the National Curriculum Framework of 2012, but the number still constitutes a minority. In the secondary years, students who opt for ethics consolidate what has been explored in the primary years and establish conceptual analysis in moral argumentation. Ethics students recognise the status of the Convention on the Rights of

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<sup>42</sup> Directorate for Quality and Standards in Education – Curriculum Management Department, “Personal, Social and Career Development Curriculum Units – Form 5,” accessed January 30, 2020, [https://curriculum.gov.mt/en/Curriculum/Year-9-to-11/Documents/curric\\_f3\\_f5/syllabus\\_pscd\\_f5.pdf](https://curriculum.gov.mt/en/Curriculum/Year-9-to-11/Documents/curric_f3_f5/syllabus_pscd_f5.pdf).

<sup>43</sup> Ministry of Education and Employment, *A National Curriculum Framework for All 2012*, (Malta: Salesian Press, 2012), 35.

<sup>44</sup> *Ibid.*

the Child, universal human rights, welfare rights, the ethics of care, animal rights, legal ethics and natural heritage. As the years go by, students go into deeper issues concerning freedom and power, authority, reflective action, distinguishing the actor from the act, the issues of anti-social behaviour, distinguishing between religious and secular moral law. At age twelve to thirteen they go into deeper meaning of moral responsibility with regards to making just and responsible choices. At this age, students discuss freedom from a moral perspective and are introduced to emotional integrity and moral duty. Here, students are expected to appreciate the “value of moral reasoning as indispensable for responsible moral choice.”<sup>45</sup> When students reach Year 10 (previously known as Form 4), they should be able to distinguish between moral and legal issues, and explore the duty to care for others as a moral obligation. At this age, they are also exposed to responsible sex issues, the issue of vulnerability and the principle of reciprocity, and the idea behind a welfare state as they continue to reinforce what they have learnt throughout the previous years. During their last year in the secondary obligatory schooling, students discuss the right to life and how to debate the sanctity of life doctrine, and they are exposed to the issues of intrinsic versus instrumental value. They also discuss “self-defence, war, capital punishment, non-voluntary euthanasia, assisted suicide, contraception, and abortion.”<sup>46</sup> They also explore the topics of the right to die and the value of death, and sexual and reproductive rights.

Compulsory subjects like mathematics, languages, physical education, design and technology, art and music do not include an ethical element in their learning outcomes up till today, as opposed to other matters regarded of importance such as sustainable development and literacy, which are currently being included as a cross-curricular theme and therefore discussed during the staff development planning sessions in each state school.

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<sup>45</sup> Directorate for Learning and Assessment Programmes, “Ethics Programme Objectives,” accessed January 21, 2020, [https://curriculum.gov.mt/en/Curriculum/Year-9-to-11/Documents/curric\\_f3\\_f5/ethics\\_prog\\_objectives.pdf](https://curriculum.gov.mt/en/Curriculum/Year-9-to-11/Documents/curric_f3_f5/ethics_prog_objectives.pdf).

<sup>46</sup> *Ibid.*

### 3.3 Bioethical issues which are not being dealt with in the Maltese Curriculum

Although Maltese students are currently being somewhat exposed to some dimensions of bioethics such as issues related to environmental ethics, the principles of justice, beneficence, non-maleficence and autonomy, issues related to the sanctity of life etc. during their religious studies, social studies, geography and PSCD lessons, this is clearly not enough. The present author's opinion is that the subject which is closest to bioethics education is the current optional ethics course, offered to those who refuse or opt not to take part in the Religious Education Classes. It has to be seen whether this ethics curriculum is up to standard, and whether or not it is pushing a particular ideology to influence the students' morality. However, although this ethics course also has various lacunae when compared to the Core Curriculum Programme suggested by the United Nations Educational Scientific and Cultural Organisation, it is a pity that the great majority of students are being deprived an ethical aspect to education, particularly since scholars worldwide are promoting a holistic lifelong education. Although as pointed out in the previous chapter, subjects like religious studies, social studies and PSCD are the most three subjects which expose students to ethical principles, these are however not being tackled in an interactive way where the students are challenged in debates and through case studies. It follows that students do not have the opportunity to apply ethical principles through bioethics as much as one would wish. One's obvious and legitimate question would be: how could such a vital subject as bioethics be omitted from the educational reform which has been launched in Malta in 2012?<sup>47</sup>

If one therefore eliminates the optional Ethics Education Programme from the local scenario and focuses one's attention on compulsory education, the situation is far from promising. As discussed above, education for democracy is achieved through various school subjects which include social studies, environmental studies, Personal, Social and Career Development (PSCD) and Home Economics, where students:

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<sup>47</sup> Ministry of Education and Employment, *A National Curriculum Framework for All 2012*, (Malta: Salesian Press, 2012).



acquire skills in enjoying rights and exercising responsibilities in various communities; dealing with conflict and controversy; making informed choices and decisions, and taking action, individually or collectively to promote a just and sustainable society whose policies are based on justice, equity and a respect for the community of life. As they develop their learning in this area, young people learn to employ citizenship skills, showing responsibility towards their environment and their world and understanding the impact of enterprise and industry on the local and global community. They gradually acquire positive attitudes and a respect for human rights; learn to adopt sustainable lifestyles; and develop a sense of belonging within their locality, country, European and international community and a willingness to participate in democratic decision-making at all levels to improve the quality of their lives.<sup>48</sup>

One can therefore conclude that bioethics is being partly tackled through the Maltese National Curriculum, but it is being done haphazardly, without structure and particular scope. The author definitely believes that important topics are totally absent from the compulsory curriculum when compared to the Bioethics Core Curriculum put forward by the UNESCO, namely the issues of autonomy and individual responsibility, consent, persons without the capacity to consent, human vulnerability and personal integrity, social responsibility of health, sharing of benefits and protecting future generations.<sup>49</sup>

Ethics Education, in the author's opinion, should never be treated as a substitute to Religious Education, because the two are bi-lateral aspects of a human being; they are complimentary and not mutually exclusive. In fact, the author feels that it is a disservice to ethics to have been treated as optional, as a subject in direct opposition to Religious Studies, as it has somewhat been stigmatised to belong to anti-Roman Christian beliefs. If a student is not Roman Catholic, the student should then be offered to choose between an equivalent subject. As a country we might not be in a position to offer lessons in every existing religion, but we might be able to offer Religious Studies which focuses on the history of the main religions of the world, various religious cultures, religion appreciation and the value of religion. The author therefore suggests that children's rights are being breached when they are being obliged to choose between ethics and Religious Studies, because they have the right to experience both. On the

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<sup>48</sup> *Ibid.* 36.

<sup>49</sup> United Nations Educational, Scientific and Cultural Organisation, *Bioethics Core Curriculum. Section 1: Syllabus Ethics Education Programme*, (Paris: UNESCO, 2008).

other hand, although bioethics education could easily be treated as a stand-alone subject, it is not here being suggested to add yet another subject to the already lengthy list of compulsory subjects in the Maltese State Schools because it would be next to impossible to accomplish due to time restrictions.

The author therefore puts forward the idea for bioethics education to be identified through its proper name: bioethics, and thus be better structured as a cross-curricular theme. This coincides with the interdisciplinarity of bioethics in its very nature, and as discussed in prior chapters, bioethics lends itself beautifully to be integrated in various subjects. Currently, there are various cross-curricular themes in place, and they have until now proven to be successful, namely: Literacy, Digital Literacy, Learning to Learn and Co-operative Learning, Education for Sustainable Development, Education for Entrepreneurship, Creativity and Innovation, and Education for Diversity. It is here to be pointed out that as cross-curricular themes, these themes are to be included in all state school's yearly School Development Plan, including teacher training regarding the said themes, auditing and planning, integration of the themes into the subject curricula and methodology. Curriculum Heads of Department, together with Education Officers in charge support schools in such endeavours through training sessions, tutorials and exemplars. This author's suggestion is to add Bioethics Education to the list. This would give it the relevance and status it already has on a European level, and integrate current topics such as issues on the beginning and end of life, issues related to sexual reproductive methods, advances in biotechnology, research ethics, the ethics of food, human enhancement among many other subjects which are now being overlooked by the current learning outcomes framework and national curriculum framework.

# CHAPTER 4: Bioethics as a Cross Curricular Subject: The Way Forward

## 4.1 When should Bioethics be introduced?

As pointed out in in the previous chapters, most educational psychologists and bioethicists conclude that as moral development in human children begins as early as the age of two, it follows that ethics education should start as early as possible. In fact, it has been suggested that “ethics draws on human dispositions, attitudes and behaviours such as valuing, selecting and acting, and is concerned with desirable actions associated with human relationships and responsibility for other people”,<sup>1</sup> an interaction which is an essential lifetime experience, and which starts as soon as a baby is born. Research shows that moral insight is first absorbed through parent-child interaction, and it is an ongoing process which starts at birth and is a life-long endeavour. Science has also shown that moral development in children starts as early as the onset of language in small children, and the author sustains this opinion also through the studies of the most renowned psychologists in the field. Developmental psychologists have shown that human babies show empathy and altruism at a very early age by being drawn towards those who take care of them or demonstrate helpfulness while shunning strangers.<sup>2</sup> A child is seen as a ‘social actor’ with morality associated with his needs as a child of his age, knowing from a very early age that there are rules to follow, but that these rules can be changed.<sup>3</sup> The United States Presidential Commission for the Study of Bioethics argues that “in early education, we can also start to build moral character, including the formation of moral sensitivity, moral identity, and lasting habits, all of which are important for future ethical decision making.”<sup>4</sup> This is why ethics should be introduced as early as possible so that children start questioning why some decisions

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<sup>1</sup> Orly Saphira-Lishchinsky, “Teachers’ Critical Incidents: Ethical dilemmas in teaching practice,” *Teaching and Teacher Education* XXX (2010): 1-9, 1.

<sup>2</sup> Lisa M Lee *et al.*, “Teaching Bioethics,” *Hastings Center Report* 44, no.5 (2014): 10-11, 11.

<sup>3</sup> Claudia Wiesemann, *Moral Equality, Bioethics, and the Child* (Switzerland: Springer International Publishing, 2016), 7.

<sup>4</sup> Presidential Commission for the Study of Bioethical Issues, *Bioethics for Every Generation: Deliberation and Education in Health, Science, and Technology* (Washington D.C., 2016), 60.

are taken rather than others. It is our duty to respect the moral integrity of the child, not by being paternalistic, but by making the child a participative agent, the fulcrum of the child's own education.

The author believes that bioethics education should be an integral part of a child's educational journey, starting with ethical foundations from early years by exposing kindergarten children to concepts of fairness, justice, human rights, environmental ethics, animal rights and food ethics ... ideas with which they can easily relate, and then continue building up towards applying ethics bioethically through the various subjects during middle and secondary schooling such as through debates and film analysis, case studies and discussions, whereby students can gain bioethical insights to sustain their arguments. This has to be achieved both informally through societal and familial ties, and formally through schooling. As Nathan Emmerich puts it:

As a formal pedagogic endeavour bioethics education has the potential to be transformative. It encourages those who study it to move from the informality of ordinary or everyday morality and moral opinion into the formality of reflective ethical argument, analysis and justification.<sup>5</sup>

Scholars in favour of bioethics education starting at a very young age argue that it is easier to set a bioethical framework by planting sound foundations at the very start, rather than introducing bioethics at a later age and having to 'un-learn' misconceptions that small children might have picked up from their informal environment in their homes and within their circle of family and friends. This is congruent with the bioethics syllabus as proposed by the UNESCO, which suggests that bioethics should be taught from pre-school till school leaving age.

Authors like Dag E Helland, however, support the teaching of bioethics at a later age, particularly at secondary school and especially for all students taking biology, agriculture, and medicine related courses. Helland argues that:

For the students to be prepared to participate actively in the discussions, create their own independent standpoint and be able to argue for these, it is of

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<sup>5</sup> Nathan Emmerich, "Reframing Bioethics Education for Non-Professionals: Lessons from Cognitive Anthropology and Education Theory," *The New Bioethics* 20, no. 2 (2014): 186-198, 191.

importance that they get a good introduction to ethics and the way ethicists approach the problems of bioethics.<sup>6</sup>

The author appreciates Helland's analysis and concurs with him as regards the importance bioethics holds for helping students acquire debating skills and the ability to approach bioethical issues, but does not agree with him when the latter suggests bioethics for particular students, because finally all citizens are asked to participate in bioethical debates in their respective countries, and also on an international scale. As outlined in the introduction of this dissertation bioethics is here being taken in its wider original sense, and not in the sense of 'medical ethics' as it is understood by many authors. When taken in its wider sense the importance of starting as early as possible gets a broader dimension because it includes our environment and all that it entails. Moreover, one approach does not necessarily exclude the other. It does not mean that those suggesting bioethics to be taught at secondary school level and university level are contrary to it being taught at other ages. Obviously, in those countries where bioethics is not recognised anywhere in the educational system, some might argue that it is better to start off where deemed most necessary for those students taking medicine as a profession. This does not necessarily exclude the fact that bioethics would best and ideally be taught for all ages and across the board.

As pointed out in the previous chapters, bioethics education has been suggested by various scholars and boards, the Presidential Commission for the Study of Bioethical Issues being at the forefront, to help children develop moral, personal and interpersonal skills which are being put forward as skills necessary in a democratic modern society, and furthermore as global citizenship has become a heartfelt reality with the globalisation trends. Researchers have in fact also proven that "research-based social, emotional, ethical, and academic educational guidelines can predictably promote the skills, knowledge, and dispositions that provide the foundation for the capacity to love,

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<sup>6</sup> Dag E Helland, "What is Bioethics?" in *Teaching Bioethics. Report from a seminar. November 2001*, organized by the Nordic Committee on Bioethics (Copenhagen: Phønix-Trykkeriet as, 2002), 11-24, 23.

work, and be an active community member.”<sup>7</sup> More importantly, one cannot leave aside the intrinsic aspect of self-actualisation; the development of the person as an end in itself, which takes one back to the early philosophers, a reminder that essentially the goal to better humanity is rooted deeply in our being as a species. Although this is not bioethics in itself, one can argue that being able to scrutinise bioethical issues through healthy debates can contribute substantially to the growth of a person, and this is what holistic lifelong education is all about. In this respect, Dahlberg and Moss believe that all kindergartens and child care centres, as with every other scholastic setting, are “spaces for ethical practice in the sense that people strive to put ethical approaches into their daily practice – although with varying degrees of awareness of the ethical nature of their endeavours.”<sup>8</sup>

One is compelled to draw the conclusion that as most philosophers and psychologists strongly believe that school is an ethical arena, then the obvious outcome would be to address that opportunity into an educational feat; address bioethics in that same setting. One could propose other areas of applied ethics to be included as well: business ethics, biomedical ethics, professional ethics, neuroethics, environmental ethics, legal ethics ... and the list could go on ... so why bioethics? When taken in its global sense, global bioethics encompasses most of the other applied ethics which are of common interest for the average citizen. It encompasses medical ethics, environmental ethics, food ethics, neuroethics and all ethics related to the ‘bios’ – to the earth and all the natural environment and its derivatives. And is this not of common interest? Are not citizens called to vote on such matters?

Having said this, it does not necessarily mean that one is considering and treating young children as lacking ethical values in the sense of a ‘tabula rasa’ which the teacher needs to fill in, as has already been discussed in chapter 2; young children are transmitted ethical values in their families and according to their environment. On the

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<sup>7</sup> Jonathan Cohen, “Social, Emotional, Ethical, and Academic Education: Creating a Climate for Learning, Participation in Democracy, and Well-Being,” *Harvard Educational Review* 76, no. 2 (2006): 201-237, 202.

<sup>8</sup> Gunilla Dahlberg *et al.*, *Ethics and Politics in Early Childhood Education* (London and New York: RoutledgeFalmer, 2005), 13.

contrary bioethics education is being suggested by Gunilla Dahlberg and colleagues to show “trust in the ethical capacities of individuals, their ability to make judgments rather than simply apply rules.”<sup>9</sup> This is why the author has suggested the importance of a student-centred approach when dealing with bioethics education at all levels; it is also a means to preserve the autonomy and dignity of the child, together with the child’s fundamental rights.<sup>10</sup> There is a general agreement among scholars that “active learning is better than passive learning. A student-centered approach is preferable, especially in bioethics education since it will encourage reflection and critical thinking.”<sup>11</sup> In this way students can relate more to the subject at hand and focus on real-life experiences while analysing different cases as suggested by UNESCO in its proposed bioethics curriculum.

It has also been proven that such skills start being acquired at a very early age, even before two years of age, and this learning is a lifelong endeavour which should ideally be pursued by all. Yanakieva and colleagues have done research on this particular subject, that is, bioethics education, and have come to the conclusion that:

Self-learning skills, teamwork, hierarchy thinking, problem solving, self-confidence and lifelong training are only some of the benefits and in-depth knowledge which children acquire at an early age. They also learn to transfer all these skills when they in future perspective will have to solve professional and personal problem orientated situations. Case resolving methods requires critical and analytical thinking, including flexibility in seeking more alternatives for finding better solutions to ethical and moral issues.<sup>12</sup>

Moreover, it has also been sustained that as the bioethical process involved in learning gets more complex, the students acquire the ability to connect more elements and therefore to construct ‘elaborate mental models’. As these new models develop, every “new approach becomes consolidated over time, the new approach becomes more automatic, and the new norm becomes one’s ‘everyday’ way of functioning.”<sup>13</sup>

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<sup>9</sup> *Ibid.*, 69.

<sup>10</sup> Claudia Wiesemann, *Moral Equality, Bioethics, and the Child* (Switzerland: Springer International Publishing, 2016), 12.

<sup>11</sup> Henk AMJ ten Have, “Bioethics Education,” *Handbook of Global Bioethics* (2014): 447-466, 462.

<sup>12</sup> Antoniya Yanakieva *et al.*, “Implementing of Education in Bioethics at Contemporary Schools – Factor for Healthy Lifestyle of the Growing Up Generation,” *Journal of International Medical Association Bulgaria* 25, no. 1 (2019): 2362-2368, 2368.

<sup>13</sup> Patricia M King, “Principles of Development and Developmental Change Underlying Theories of Cognitive and Moral Development,” *Journal of College Student Development* 50, no. 6 (2009): 597-620, 601.

This leads the author to suggest that to start at an early age and keep consistency throughout is an important key to success in bioethics education, which should be envisaged as the development of a process or a way of thinking appropriate to the person's age and exigencies at that moment in time. Bioethics education should always be coupled with adequate teacher training and harmonisation, and obviously a student-centred approach as outlined throughout this dissertation.

## 4.2 Methodology

An issue arises about deciding which methodology should be used. UNESCO suggests formal lessons dedicated to Bioethics with a set curriculum and sample lesson plans, starting at kindergarten level at the age of three,<sup>14</sup> while other educational entities in various countries, the United States of America being at the forefront,<sup>15</sup> closely followed by the European Union,<sup>16</sup> suggest that Bioethics should be taught across the curriculum through the various scholastic subjects. All three of the above have devised a strategy to include all children following compulsory education at all ages.

The International Medical Association of Bulgaria (IMAB) is pushing the idea of compulsory bioethics education through the publication of various research articles in its journal. In one such article, Yanakieva and colleagues stress that:

The development of new training styles in schools, compliant with the European community framework, needs modernization and harmonization in regard to standards for professional competence of teachers and educators in the European Union, international collaboration extensions and exchange of experience. In order to construct European identity of the educational programs, their efficacy should include common values in the Universal Declaration of Bioethics of UNESCO.<sup>17</sup>

This perspective continues to stress the importance of harmonisation of Bioethics Education in the member states of the European Union, and if one ponders on the idea of harmonisation and links this to the various arguments explored in this dissertation,

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<sup>14</sup> United Nations Educational, Scientific and Cultural Organisation, *The First Syllabus for Youth Bioethics Education, 2<sup>nd</sup> Edition*, (University of Haifa, 2018).

<sup>15</sup> Presidential Commission for the Study of Bioethical Issues, *Bioethics for Every Generation: Deliberation and Education in Health, Science, and Technology* (Washington D.C., 2016).

<sup>16</sup> Council of Europe, Bioethical Issues Educational Fact Sheets. Everything you need to lead a classroom a debate, (Strasbourg: Council of Europe Publishing, 2009).

<sup>17</sup> Yanakieva *et al.*, "Implementing of Education in Bioethics at Contemporary Schools," 2362.



one can come to the obvious conclusion of the urgency of such an educational pathway. Henk AMJ ten Have and Bert Gordijn have pointed out the problem of a lack of communication between bioethics educators both regionally but especially on an international platform.<sup>18</sup> They have also found out that where there is no official national framework bioethics education is doomed to fail because of its vulnerability. They have therefore concluded that “there is a need for a global platform for ethics education.”<sup>19</sup> This should “facilitate the exchange of educational experiences, may bring colleagues from around the world in contact, and in the end may promote the quality of ethics teaching.”<sup>20</sup>

The author has already stressed the idea of bioethics as a frame of mind acquired after extensive educational and personal experiences in chapter 2 of this dissertation. This frame of mind would come in very handy when political leaders make crucial decisions that affect the everyday lives of European citizens, and moreover when citizens are asked to voice their opinion on particular bioethical matters. It follows that if one is to expect Bioethical expertise at the highest of institutions, one is to cultivate this bioethical frame of mind from the basis of society...in families...which takes one back to the need of bioethical education in compulsory schooling.

When suggesting global bioethics education, the author is not meaning presenting facts to students in a teacher-centred setting, but rather is suggesting a hands-on student-centred method which encourages discussion. When talking about bioethics education one comes across the notion of ‘value-clarification’ rather than ‘value-transmission’.<sup>21</sup> What does this actually mean? It is the distinction between inculcating and brain-washing children with the educator’s own values and ethics standards, versus the notion of presenting the children with case scenarios, whereby the educator leads a healthy debate regarding the ethical implications posed, while trying to elicit values

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<sup>18</sup> Henk AMJ ten Have, and Bert Gordijn, “Broadening Education in Bioethics,” *Medical Health Care and Philosophy* 15 (February 2012): 99-101, 99.

<sup>19</sup> *Ibid.*

<sup>20</sup> *Ibid.*, 100.

<sup>21</sup> Rauni Räsänen, “Teachers’ Ethics, Teacher Education and Changing Horizons,” in *Ethical Challenges for Teacher Education and Teaching*, ed. Vappu Sunnari, and Rauni Räsänen (Oulu: Faculty of Education University of Oulu, 2000), 168-178,172.

from the students' themselves, always keeping in mind universal values which have been agreed upon internationally ... although some might argue that "the list of values is not important but an individual's active role in finding the values. What is vital is to lead the student to the road of constant value decisions."<sup>22</sup> As already outlined in chapter 1, bioethics is never about the actual knowledge of the ethical principles involved, but rather about a process of applying those principles to the bioethical issues in particular ... a process leading to 'autonomous ethical deliberation'.<sup>23</sup> The problem posed might never be the same, but the bioethical process and analysis is a constant.

In addition, studies also show that "students need structured opportunities to develop arguments and discuss them with their peers" and research in the area has concluded that "students need experience and practice justifying their claims, recognizing and addressing counter-arguments, and learning about elements that contribute to a strong justification."<sup>24</sup> This leads the discussion once more towards the need to start off this 'practice' as early as can be. One cannot expect older students to articulate bioethical discourses, claims and analysis without ever being exposed to such vocabulary. Neither can politicians be expected to refer to bioethical theories when discussing sustainable development, abortion, stem-cell research, genetically modified organisms, carbon footprint, food miles while legislating. Jeanne Ting Chowning and her colleagues have come to the conclusion that "an informed citizenry that can engage in reasoned dialogue about the role science should play in society is critical to ensure the continued vitality of the scientific enterprise."<sup>25</sup> Therefore the need for bioethical education as a cross-curricular subject within mandatory schooling here takes a better perspective. One cannot ignore the fact that bioethics education will definitely improve one's way of scrutinising decisions ... it is an eye opener, and being such a powerful tool one cannot leave it in the hands of the chosen few. The author feels that it is the state's duty to fill this gap in the current curriculum, counterbalancing the children's right to be

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<sup>22</sup> *Ibid.*

<sup>23</sup> *Ibid.*

<sup>24</sup> Jeanne Ting Chowning *et al.*, "Fostering Critical Thinking, Reasoning, and Argumentation Skills through Bioethics Education," *Plosone* 7, no. 5 (May 2012): 1-8, 1.

<sup>25</sup> *Ibid.*, 8.

educated holistically and in such a way that the child would function in a democratic modern society.

Nathan Emmerich scrutinises various approaches towards bioethical education. He distinguishes between the acquisition of bioethical information through the teaching and learning process, versus the idea of 'educating for citizenship' where he believes bioethics can be a crucial ingredient to form politically literate citizens, in the sense that through bioethics education students acquire 'political subjectivity'.<sup>26</sup> Emmerich tries to analyse how best one should go about what he calls 'non-professional bioethics education', either as a stand-alone module or subject, or as a cross-curricular informal insight across all subjects and at all levels. This is why he refers to it as 'non-professional bioethics', because he is an advocate for bioethics education as an important form of character formation, not only as a profession to be studied at post-graduate level. He argues that:

the purpose of bioethics education, particularly when pursued on its own terms rather than as part of professional training, is to encourage reflection and analysis of these wider realities and, as such, can be considered part of what we might call 'education for citizenship'.<sup>27</sup>

Although Emmerich recognises the need of well-trained educators to lead this 'cognitive apprenticeship' he believes that one can achieve bioethically literate citizens without imposing a formal subject slot in our curricula, and furthermore he stresses that bioethical education is society's collective responsibility in a democratic society.<sup>28</sup>

Following what has been discussed one might as well conclude that to open up the students' minds to a bioethical framework one need not spoon feed them with facts and knowledge but make them active participants in their own development by providing an environment where they can safely debate, compare and contrast their ideas with their class mates, always under the lead of a trained educator. Through this democratic analysis, students will learn how to analyse bioethical issues, listen actively to various

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<sup>26</sup> Nathan Emmerich, "Reframing Bioethics Education for Non-Professionals: Lessons from Cognitive Anthropology and Education Theory," *The New Bioethics* 20, no. 2 (2014): 186-198, 187.

<sup>27</sup> *Ibid.*, 188.

<sup>28</sup> *Ibid.*, 189.

opinions and scrutinise them, understand the implications of the case, communicate their views and deliberate the best ethically correct solution in the particular case scenario so as to come to a consensus. If as an education department this goal would be achieved, one would be creating a bioethically literate society, and through this achieve another outcome within the already existing curriculum outcomes under 21st century skills each citizen should aim at achieving.

Various authors stress the interdisciplinary aspect of bioethics and the fact that to become a competent bioethicist one needs to compile and analyse data from multiple subject areas such as sociology, psychology, biology and anthropology.<sup>29</sup> This interesting perspective is another asset that leads the author more towards a cross-curricular methodology to substantiate the interdisciplinarity of the subject at hand. A cross-curricular approach would give bioethics that twist and spice according to the subject being taught in class. It would give students various perspectives to the same topic; it would enhance students' experience and immerse them in a cross-curricular discussion in resemblance of the interdisciplinary characteristic which is fundamental to bioethics.

Although the following statement refers to ethics education, one can also apply it to our thesis, because to be able to analyse in a bioethical manner, one must also have the know-how of ethical principles and theories. As proposed earlier in this same chapter, it would be wise to start with the basics and then move on to applied ethics.

What is important for us is that we have started what we believe to be an important reform – the creation of schools where justice, fairness, equity, and ethical behaviour are topics for discussion and the goals of action. We are determined to succeed in this area at least as well as we have succeeded in the teaching of reading, language arts and arithmetic.<sup>30</sup>

Bioethics does not only influence the individual in his private life, but it impacts society as a whole and has a global dimension. This is why the teacher has to keep in mind the cultural setting of the students and the values shared in the particular society.

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<sup>29</sup> TJ Silber, "Bioethics: An Interdisciplinary Enterprise," *Journal of Religion and Health* 21, no.1 (Spring 1982): 21-28, 28.

<sup>30</sup> Donald Thomas *et al.*, "Ethics Education is Possible!" *The Phi Delta Kappan* 60, no.8 (April 1979): 579-582, 582.

The author would hereby recommend following the UNESCO suggested bioethics programme through *The First Syllabus for Youth Bioethics Education*,<sup>31</sup> and *The First Syllabus for Youth Bioethics Education 2<sup>nd</sup> Edition*,<sup>32</sup> and adapt it to the particular country for which the educational course is being suggested, both if it were to be envisaged as a cross-curricular subject, or if it were to be offered as a stand-alone course. In this way one would be harmonising what is being taught according to a global minimum standard set by an acknowledged global entity, an entity which has a sound history of promoting education as a basic human right. The curriculum proposed by UNESCO is not being put forward as an exhaustive list of topics, but as a skeleton on which one can plan the bioethics education programme according to the local needs. These tools are aimed towards children from three years until the age of nineteen and have gone through various checks and balances before they were finally published. The curriculum has been revised twice, and after discussions in the various UNESCO Chairs and a ten-year pioneer study, a syllabus for bioethics has been drafted, and then revised in a second edition. The last version published in 2018, which includes the input of a good number of bioethicists and educators originating from all the continents, has now been disseminated to over 100 experts to be used in class, scrutinised and assessed. Then the syllabus will be revised for the third time accordingly. It is not to be considered as a comprehensive universal tool, but as a guideline to be moulded according to the country's needs, always respecting the principles on which it was built, namely the principles put forward by the *Universal Declaration on Bioethics and Human Rights*.<sup>33</sup> These will be further discussed in section 4.3.

*The First Syllabus for Youth Bioethics Education* put forward by UNESCO in 2018 is an “initiation of a call for active involvement of the students in the discussion and decision-

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<sup>31</sup> United Nations Educational, Scientific and Cultural Organisation, *The First Syllabus for Youth Bioethics Education*, (University of Haifa, 2017).

<sup>32</sup> United Nations Educational, Scientific and Cultural Organisation, *The First Syllabus for Youth Bioethics Education, 2<sup>nd</sup> Edition*, (University of Haifa, 2018).

<sup>33</sup> United Nations Educational, Scientific and Cultural Organization, Division of Ethics of Science and Technology Social and Human Science Sector, *Universal Declaration on Bioethics and Human Rights* (France: UNESCO, 2006).

making process” while formulating a “universal method of teaching to fit any place.”<sup>34</sup> The syllabus caters for various age groups, starting from kindergarten level (ages three to five years) until teenagers up till the age of nineteen. It is geared for teachers and educators, and while including teaching aids such as games and stories for discussion, together with a proposed methodology, it can be modified according to the needs of a particular classroom. The units were written by different authors so that the syllabus would carry various perspectives and would be more universal and easily applicable. The syllabus is a useful guide to what is considered as good practice and sets a global minimum standard through its exemplars. It needs to be pointed out and stressed that bioethics education “is particularly suitable for alternative teaching methods like group work, student presentations, problem-based teaching and case studies.”<sup>35</sup> This should propel in the individual student the need to listen to others, discuss, debate and finally come to a consensus. The art of deliberation is one of the goals of such a programme, a goal which is expected to be reached by the age of nineteen.

The *Bioethics Core Curriculum* (UNESCO, 2011)<sup>36</sup>, which is aimed at older students who are interested in medicine and are therefore studying chemistry, biology and science, in its second section portrays exemplars of different activities and methodologies which could be used in class. This volume even includes the learning objectives and suggests media such as real cases for discussion, role plays, reading material, movies to complement the lesson, pair work and group work settings, group discussion agendas, internet links and suggested books for each unit. Although some educators might see it as an already comprehensive course, UNESCO presents it as a guideline to help various countries device their own bioethics education programme.<sup>37</sup> In this respect, Chiedozie Ike and her colleagues have proven the efficiency of teaching bioethics through visual tools such as comic strips and movies, even when complex

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<sup>34</sup> United Nations Educational, Scientific and Cultural Organisation, *The First Syllabus for Youth Bioethics Education, 2<sup>nd</sup> Edition*, (University of Haifa, 2018).

<sup>35</sup> Helge Klungland, “Teaching bioethics – Group Report and Final Discussions,” in *Teaching Bioethics – Report from a seminar. November 2001*, Nordic Council of Ministers (Copenhagen: Phønix-Trykkeriet as, 2002), 135-141, 138.

<sup>36</sup> United Nations Educational, Scientific and Cultural Organisation, *Bioethics Core Curriculum. Section 2: Study Materials Ethics Education Programme*, (Paris: UNESCO, 2011).

<sup>37</sup> *Ibid.*

bioethical dilemmas are implicated.<sup>38</sup> The curriculum put forward by UNESCO is there to harmonise and globalise bioethics education and is meant to be moulded according to each educator's and student's particular needs while providing a minimum standard of education.

### **4.3 Suggested learning outcomes through Bioethics Education**

The author is proposing the integration of a global bioethics education starting from the early years in kindergarten up till school leaving age. The author is hereby proposing to device a syllabus based on the UNESCO guidelines through its Core Curriculum and Bioethics Syllabus. The method should be student-centred and age-appropriate, involving case studies, games, film reviews, discussions and debates. The global bioethics curriculum should be introduced as a cross-curricular theme, encompassing teacher training in the field through professional development, and should be part of the school development plan, audited and reviewed annually like the existing cross-curricular themes.

Being such a vast subject, one might at first glance believe it is impossible to come up with Bioethics learning outcomes for compulsory school aged children, especially if seen as a cross-curricular themed subject to be integrated within the already existing curriculum. Depending on personal preferences, one might choose to emphasize some aspects more than others. For example, Göran Hermerén sees the importance of bioethics education more from a perspective of globalisation and the challenges related to immigration and demographic changes, and the need for a citizen to be aware through improved educational opportunities and new technologies.<sup>39</sup> The United States Presidential Commission for the Study of Bioethical Issues states that:

Bioethics requires us to reason and deliberate together, and for that, we all need an understanding of ethics to articulate and justify our beliefs, understand how our

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<sup>38</sup> Chiedozie G Ike, and Nancy Anderson, "A proposal for teaching bioethics in high schools using appropriate visual education tools," *Philosophy, Ethics and Humanities in Medicine* 13, no.11 (2018): 1-5, 1.

<sup>39</sup> Göran Hermerén, "Why do we need bioethics?" in *Teaching Bioethics. Report from a seminar. November 2001*, organized by the Nordic Committee on Bioethics (Copenhagen: Phønix-Trykkeriet as, 2002), 25-46, 25.

values intersect with those of our fellow community members, and provide the basis for collective decision making on matters of common concern.<sup>40</sup>

Some educational psychologists, as previously discussed in chapter 2, believe in self-actualisation, other scholars put forward human rights, while others might see environmental ethics as most important of all. It is clear for the author that as a general perspective, most scholars put forward a medically inclined agenda towards bioethics. If one is to aim to universalise bioethics through education, however, one must keep in mind any possible bias so as to neutralise it and avoid promoting any particular ideology to students. Jan Piasecki argues that “every bioethics program should avoid partiality and promotion of a certain approach.”<sup>41</sup> Promoting certain principles rather than others would undermine the aim of cultivating the skill of bioethical deliberation to students.

The author suggests following the syllabus put forward by UNESCO, because this syllabus is based on the fifteen principles adopted in the *Universal Declaration on Bioethics and Human Rights* (2006).<sup>42</sup> The foundations on which the UNESCO has built its bioethics syllabus have been accepted by the United Nations member states, and can therefore be the skeleton of the proposed learning outcomes. The General Conference of UNESCO adopted by acclamation the Universal Declaration on Bioethics and Human Rights in 2005, and “for the first time in the history of bioethics, Member States committed themselves and the international community to respect and apply the fundamental principles of bioethics set forth within a single text.”<sup>43</sup>

The principles can be applied to any situation the educator deems appropriate, always keeping in mind the need for harmonisation and student active participation. One of the principles revolves around ‘human dignity and human rights’ which are considered as fundamental to the declaration and are to be respected at all times as

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<sup>40</sup> Presidential Commission for the Study of Bioethical Issues, *Bioethics for Every Generation: Deliberation and Education in Health, Science, and Technology* (Washington D.C., 2016), 54.

<sup>41</sup> Jan Piasecki *et al.*, “Erasmus Mundus Master of Bioethics: a case for an effective model for international bioethics education,” *Medical Health Care and Philosophy*, no.21 (2018): 3-10, 7.

<sup>42</sup> United Nations Educational, Scientific and Cultural Organisation, *The First Syllabus for Youth Bioethics Education, 2<sup>nd</sup> Edition*, (University of Haifa, 2018).

<sup>43</sup> United Nations Educational, Scientific and Cultural Organization, Division of Ethics of Science and Technology Social and Human Science Sector, *Universal Declaration on Bioethics and Human Rights* (France: UNESCO, 2006).



agreed upon by all the UNESCO member states. Another principle explains the distinction and balancing out of 'benefit and harm' where it is suggested that both indirect and direct benefits are maximised, while harm should be kept to a minimum. In article 5 UNESCO speaks of 'autonomy and individual responsibility' while article 6 revolves around 'consent', a subject which is barely mentioned in current Maltese syllabi and which is a person's fundamental right recognised internationally. Article 7 continues to elaborate on consent in the case of 'persons without the capacity to consent'. This topic is virtually absent in the Maltese curricula, and the author believes students should be exposed to this case scenario; they should be aware on their position as regards medical consent at an early age, even in view of any possible abuses. The principles on which the declaration is set continue to evolve around 'respect for human vulnerability and personal integrity'. Although Maltese students are somewhat exposed to these values during their religious education, PSCD, social studies and ethics lessons, one is not aware of the methods that are currently being used to convey such messages. As to 'privacy and confidentiality', 'equality, justice and equity', 'non-discrimination and non-stigmatization', 'respect for cultural diversity and pluralism', 'solidarity and cooperation', 'social responsibility and health', 'sharing of benefits', 'protecting future generations', and 'protection of the environment, the biosphere and biodiversity'<sup>44</sup> the same can be said, as already discussed in chapter 3. When analysing the Maltese curricula, one finds references to all the principles outlined in the declaration but the method with which they are being tackled is far from what is being proposed here. The author believes in transforming our schools in 'loci of ethical practices' where educators contribute towards forming healthy relationships with their students, where the students themselves relate with each other and with the environment with respect, where the whole education system is "founded on a profound respect for otherness and a deep sense of responsibility for the Other."<sup>45</sup> Once these ethical values are in place in the primary years, bioethics can have a deeper meaning.

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<sup>44</sup> United Nations Educational, Scientific and Cultural Organization, Division of Ethics of Science and Technology Social and Human Science Sector, *Universal Declaration on Bioethics and Human Rights* (France: UNESCO, 2006).

<sup>45</sup> Gunilla Dahlberg *et al.*, *Ethics and Politics in Early Childhood Education* (London and New York: RoutledgeFalmer, 2005), 192.

One could at this point wonder how such vast pillars could be transferred to learning outcomes; however, this is not an impossible feat. The proposed UNESCO syllabus explains, refines and gives ample examples on how to apply the above-mentioned principles in a classroom setting, how to promote them and finally how to assess progress. It is hereby also noted that the principles should not be compartmentalised, but treated in a holistic and interrelational manner, in a way that the student appreciates the complementarity of bioethics principles and can therefore be led to relate them to everyday life. As stressed by Christina Osbeck and colleagues, bioethics “cannot be about artificial dilemmas, but ought to be about the everyday life of young people.”<sup>46</sup> This is the main reason the author believes that it would be more beneficial to treat bioethics as a cross-curricular subject rather than a compartmentalised one. Cross-curricular themes are being given due importance in Maltese schools, and as such the author believes that bioethics should follow suit. These themes are part and parcel of the school development plan, and it is the duty of each educator to find a way how to integrate them in the scholastic life, as he or she is ultimately held accountable to work on them throughout the year. Being such an interdisciplinary subject, bioethics can very easily be integrated in such a way, through the various subjects.

Bioethics is more about skills and mindset, and by applying ethics to diverse bioethical issues the student will eventually be trained to apply bioethics when making every decision. The learning outcomes should lead the student to eventually make bioethics part of one’s persona, an automatic rationale of thinking, an acquisition of analytic skills and part of one’s general attitude. A cross-curricular approach would help the student apply bioethical reasoning in diverse settings and in various situations.

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<sup>46</sup> Christina Osbeck *et al.*, “Possible competences to be aimed at in ethics education – Ethical competences highlighted in educational research journals,” *Journal of Beliefs and Values* 39, no.2 (2018): 195-208, 205.

# Conclusion

After reading for a three-year Masters in Bioethics programme of studies, the author recognises the importance of bioethics education. Being in the teaching profession it was envisaged from the beginning that the subject of this dissertation would have been the relationship between bioethics and education. Bioethics broadens one's horizons in a unique way, and in a democratic society, for a citizen to be an active participant in decision making, education in this field is imperative. The title of this dissertation was in fact chosen in order to raise awareness on the subject, and there is in fact a global effort towards providing bioethics education for all. UNESCO has encouraged this bioethics education movement through Article 23 of the Universal Declaration on Bioethics and Human Rights which holds that:

In order to promote the principles set out in this Declaration and to achieve a better understanding of the ethical implications of scientific and technological developments, in particular for young people, States should endeavour to foster bioethics education and training at all levels as well as to encourage information and knowledge dissemination programmes about bioethics.<sup>1</sup>

The aim of this dissertation is to increase consciousness about bioethics education across the globe, give an insight as to how various countries are approaching bioethics education, identify and scrutinise various bioethics educational resources and suggest a way forward in the Maltese scenario. Through an analysis of the various cognitive development theories and moral development theories in chapter 2, one has seen that moral development starts at a very early age and is a continuous process. This calls for an early start for ethics education, which should then be consolidated throughout schooling, especially until the compulsory school-leaving age.

TJ Silber defines bioethics as “the field of normative applied ethics to biomedical issues in which the premises of the moral reasoning are being informed by disciplines

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<sup>1</sup> United Nations Educational, Scientific and Cultural Organization, Division of Ethics of Science and Technology Social and Human Science Sector, *Universal Declaration on Bioethics and Human Rights* (France: UNESCO, 2006).

from the natural and social sciences,”<sup>2</sup> and it is here being emphasized that bioethics would be taken in its wider sense as Potter had originally defined it, later calling it ‘global bioethics’. Preferably this would be treated as a cross-curricular theme across all year levels in compulsory schooling, firstly because this method would give wider perspectives in a multi-disciplinary setting. As discussed in the introduction and the first chapter, bioethics is an interdisciplinary subject in its origin, and therefore it can easily be combined and thought through different subjects, thus taking a variety of applications. Secondly, as the Maltese curriculum already holds the structure for cross-curricular themes, the introduction of bioethics education as one such theme would make it much easier for it to be introduced in the near future. Cross-curricular themes have now been integrated within the scholastic system, and bioethics would fit in nicely. This strategy would call for bioethics training for all educators, together with awareness about the subject before being introduced. As with the other cross-curricular themes, continuous professional development is a must, as is assessment on the success or failure of the project.

It is hereby being suggested that very young children should start bioethics education by being exposed to various ethical principles through a variety of media and classroom setups. As shown in chapter 3 this is already being done to a certain extent, but it needs a formal structure. As the children develop cognitively they would then be more receptive for more complex situations where they will then be ready to start applying ethics through bioethical issues, thus acquiring more competencies. The author is recommending keeping the UNESCO proposed syllabus as a guideline to build a customised syllabus for Maltese students. As explained above, however, the author is keener on the USA’s method of addressing bioethics education across the curriculum, rather than segregating the subject as an independent course such as put forward by UNESCO. The President’s Commission believes that as younger children start school they should be introduced to basic ethics education, whilst older students should be able to grasp topic-specific issues and relate to them with a bioethical mindset. The

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<sup>2</sup> TJ Silber, “Bioethics: An Interdisciplinary Enterprise,” *Journal of Religion and Health* 21, no.1 (Spring 1982): 21-28, 21.

Commission recommends “the infusion of bioethics training throughout education, building knowledge and skills that are tailored for different educational levels and life stages.”<sup>3</sup>

The introduction of bioethics education in the Maltese Islands has been discussed in chapter 4, and such an introduction would aim to achieve in students of school-leaving age a bioethical maturity which shall then help them analyse life issues bioethically. Darryl Macer explains that bioethical maturity “assumes a certain ability to weigh up the different arguments that can be used to discuss an issue, to recognise the different ethical frameworks that can be used and to compare the benefits and risks of the dilemmas,”<sup>4</sup> which skill is an essential twentieth century education goal.

The author hopes that this dissertation will help education authorities in the Maltese Islands understand the need for this proposed change, and therefore act accordingly by introducing bioethics education as soon as possible.

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<sup>3</sup> Presidential Commission for the Study of Bioethical Issues, *Bioethics for Every Generation: Deliberation and Education in Health, Science, and Technology* (Washington D.C., 2016), 3.

<sup>4</sup> Darryl Macer, “Bioethics Education for Informed Citizens Across Cultures,” *School Science Review* 86, no.315 (December 2004): 83-86, 85.

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