

BIOETHICAL EDUCATION AND ATTITUDE GUIDANCE FOR LIVING ENVIRONMENT

TEACHER GUIDELINES IN EARLY BIOETHICAL EDUCATION

STATE OF THE ART AND NEEDS ANALYSIS



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and Attitude Guidance
for Living Environment

Teacher Guidelines in Early Bioethical Education

State of the art and needs analysis

Authors

Mateja Centa, Bruno Ćurko, Josip Guć, Antonio Kovačević, Marija Kragić, Maddalena Nicoletti, Pier Giacomo Sola, Giannis Stamatellos, Vojko Strahovnik, Nikos Vasilakos

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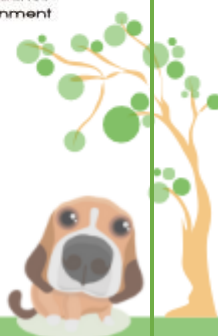
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1. Introduction

You are reading “Teacher Guidelines in Early Bioethical Education”. These Guidelines are created as a part of the project BEAGLE – Bioethical Education and Attitude Guidance for Living Environment. In this short introduction we will give an answer to three basic questions: What? Why? When?

What?

“Teacher Guidelines in Early Bioethical Education” is a short introduction in bioethical education. However, it does not take into account every bioethical topic, but it is limited to the issues of human conduct toward his living environment (non-human living beings and nature). These Guidelines are the first step in the BEAGLE project. After these Guidelines which include complete research of state of art in early bioethical education we will create 8 open educational resources with methodological guidelines, 4 educative picture books with methodological guidelines, and Curriculum for primary and high school teachers regarding learning about bioethics and critical thinking approach. The project will be completed by publishing Online Centre for bioethics education.

Why?

Because:

- BEAGLE Guidelines can help you to get familiar with basic topics about bioethics and bioethical education
- If there is any, you will find out about bioethical education within framework of European Union strategies.
- You will get familiar with EVE (Ethical and Value Education).
- You will get familiar with state the of art in early bioethical education in Italy, Slovenia, Greece, and Croatia
- You will get familiar with examples of good practice from four EU countries.
- At the end of the whole project you will be able to carry out BEAGLE – bioethical workshops with your school students and enjoy in the process.

When?

From this moment until the September 2020 we will work hard on BEAGLE. After September 2020 until the end of the world you will be able to use our BEAGLE materials in your class. Enjoy the traveling through bioethical education space.



Bioethical Education and Attitude Guidance for Living Environment – BEAGLE

Bioethical Education and Attitude Guidance for Living Environment or BEAGLE is a bioethical project funded and approved by the European Union (Erasmus+), which brings together international partners from the Mediterranean Pool with the aim of promoting open education and innovative educational practices. Associations Petit Philosophy (Croatia), StePS (Italy) and InternetNow! (Greece) with Centre for Integrative Bioethics of the Faculty of Humanities and Social Sciences of the University of Split (Croatia), and Faculty of Theology of the University of Ljubljana (Slovenia) have decided to share their experiences with the intention of developing new ones, which will help them in the creation, testing and implementation of innovative methods of education and teaching based on bioethical values.

The idea that drives this project forward is that recent rapid development of technology requires a new approach to teaching – education systems and professors are struggling to keep up with new technical capabilities, and the purpose of the project is to provide educators with a methodological framework and guidelines that will help them with introducing innovative practices in the contemporary environment. On the other hand, same as teachers, students are trying to keep up with the contemporary surroundings, surroundings which suppress the relationship with the environment, more precisely with the nature. BEAGLE's partners are motivated to believe that bioethical values and critical thinking are crucial elements, now more than ever, of the development of a democratic, pluralistic, ecologically aware open society, which is why the focus of general education should be shifted on these elements. The BEAGLE project, therefore, as the primary user of this project sees students (6 to 18 years old) equally as teachers.

The purpose of the project is to develop concrete guidelines for bioethical education that will assist teachers in implementing higher order skills, especially critical thinking. Additionally, with the development of educational materials and manuals BEAGLE will further improve the development of teaching staff, and the available materials will also address the practical application of educational strategies – such as organizing and conducting bioethical workshops, developing Socratic dialogue, etc. Given that the project is devoted equally to students and teachers, the focus will be on the conduct of bioethical workshops with the aim of developing bioethical values and critical thinking in students. Furthermore, BEAGLE will develop a transnational school curriculum for bioethical education in which will revise the current representation of bioethical values and critical thinking in schools. Ultimately, the development of the BEAGLE online archive and bioethical education network will link all teachers and educators across an open platform that will optimize the exchange of experiences and encourage faster implementation of innovative methods.



2. Ethical and values education

Key terms:

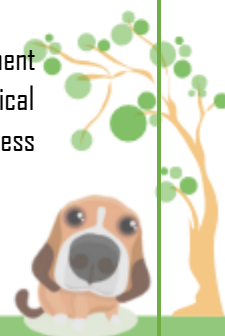
- **Ethics:** Ethics is a reflective and comprehensive system of values, principles, rules, virtues, and ideals that guide and shape our lives and determine the basis for the relationships that we form and sustain with others as well as ourselves. It situates and orients us in the world, both social and natural. As such it is the primary object of study by moral philosophy or ethics as an academic discipline.
- **Values:** Values are deep-rooted, pervasive, and lasting beliefs, attitudes, ideals, and attachments, which are usually shared by the members of a given community and concern what is good or bad, or what has value. As human beings, we are inevitably faced with questions and challenges about what to choose for us and for others, what to do and how to behave towards others, and thus values help us understand the world around us and orient our lives accordingly.
- **Ethical education/Ethics and values education:** Ethical and values education is an inherent part of an educational process and concerns topics that are related to the ethical dimensions of our lives, our relationships with others and our relationship towards the environment. Ethical education steers children towards the search and commitment to fundamental values, meaning, and purpose in their lives, towards nurturing a respectful attitude towards others (both individuals and communities alike) and putting one's beliefs, attitudes and values into practice. Its main aim is to stimulate moral reflection, autonomy, responsibility, care and empathy in children, all this in connection with providing them with insights into important ethical principles and values that shape appropriate moral judgment.

Ethical and values education¹ concerns all dimensions of education, which are related to the moral dimensions of our lives (i.e. those that concern ethics and values). Ethical education centres on fostering ethics and values (justice, equality, dignity, liberty, non-violence, inclusiveness, human rights, solidarity, cooperation, etc.) as part of education, encouraging a respectful attitude towards others (individuals, communities, nature, wider environment), promoting a positive formation of character and building capacities for reflective and informed moral judgment.²

Another very important aim of ethical education is that it helps us to build the class or school as a whole as an ethical community since it stipulates openness toward the other and thus invites all to be open in the process of mutual growth, cooperation, and learning.

There are four distinctive aspects embedded in education that are connected with value, namely educational contents, methods, educational outcomes and relationships. In respect to the educational process, it is thus important of what is being conveyed in this process as well as what ways are being used to do this, the consequences of the process and the relationships that are formed during this process.³ Thus, we must ascertain that the value-dimension cannot be excluded from education.⁴

Education, especially early education, is one of the most fundamental elements in supporting the development of autonomous, caring, resilient individuals that will contribute to communities both locally and globally. Ethical education can play an important part in nurturing such an individual and this must be interleaved in the entire process of education taking into considerations the maturity of the children.



The main purposes that ethical and values education serves are the following, broadly delineated ideas: (a) to stimulate ethical reflection, attentiveness, care, autonomy, and responsibility in children as well as all other members of the educational community that is formed as part of the educational process;

(b) to inspire children to examine and understand different ethical principles, values, virtues, and ideals; (c) to cultivate in children key intellectual virtues or abilities (e.g. reflection, comprehension appreciation, compassion, critical thinking, etc.)⁵ that are needed for conscientious moral judgment, decision-making, and action; (d) to guide children through the process of exploring different moral perspective and different values and investigate how they relate to concrete life situations and ethical challenges; (e) to promote cooperative, collaborative behaviour and to deepen the motivation for creating a group, class, or school environment as a genuine ethical community; (f) to enable children to reflect on their self-image and establish a proper sense of self-worth; (g) to build character and moral virtues of children in a way that enables them to achieve a morally acceptable, flourishing and personally satisfying good life (*eudaimonia*);⁶ (h) to stimulate children to form a courteous attitude towards others, society and the environment; (i) to enable children to overcome possible prejudices, biases, preconceptions, discrimination, and other unethical attitudes and practices; and (j) to help children situate themselves as members of local and global communities.⁷

Ethical education incites individuals to make values relevant to, for and in their lives in a concrete social context and in an experiential and expressive manner. The question about the proper and effective method to best achieve all this remains open, but most authors and practitioners in the field agree that such a process must go beyond a straightforward inculcation of values or passive assent based on authority.

There are several specific methods developed for the field of ethical and values education. These range from inculcation and transfer of important ethical principles and values *via* educational contents, storytelling or school practices and policies to approaches that are more open and reflective (critical thinking, philosophy with children, community of inquiry, value clarification approach⁸), address specific aspects of morality (care ethics approach⁹ and caring thinking,¹⁰ empathy approach, cognitive developmental ethics education, character education,¹¹ etc.) or oriented towards learning through ethical action (project-based activities, service learning approach¹²). One additional aspect that we must be mindful of is the proper balance between individual and societal aspects of values education.¹³ In order to include all these considerations and aspects of ethical education it is best to opt for an integrative, holistic, comprehensive, multi-dimensional, reflective and collaborative¹⁴ approaches that cointegrate diverse methodologies that help children to develop a dialogic and inclusive stance. Such approaches also emphasize that we should move away from focusing merely on children and to include teachers, other educators the entire community and with its institutions as agents of ethical education.



3. Bioethics

Before we take a look into the possibilities of bioethical education, it is necessary to understand what bioethics is, and that will be done by short presentation of the main bioethical topics, as well as bioethical methodology.¹⁵

Due to the significant changes that occurred in 20th Century, classical ethical approaches were no longer able to give clear answers to the *new moral challenges*. Problems first occurred in *medicine*, from two directions. On the one hand, the striking development of technology has provided completely new possibilities of *fundamental intervention into human life*, e.g. in vitro fertilization or genetic engineering. On the other hand, social changes led to the construction of *pluralistic society* where problems such as abortion or euthanasia became the subject of public debate. In addition, there occurred the *movements for patients' rights* that challenged traditional paternalistic paradigm in the relationship between a physician and a patient. All these changes called into question the medical ethics based on the Hippocratic Oath, i.e. Hippocratic Deontology. First thing that was clearly noticed in the new circumstances is that the perspective of one science (whether we are talking about ethics, biology or any other science) cannot provide an adequate normative orientation for our times.

Of course, the issues related to the development of technology have not only affected medicine, but also a wider area and even with much more intensity. Namely, *genetic modifications* were first performed on *non-human organisms*, by which humans have gained such a *power over life* that they never had before and whose consequences are harder than ever to foresee. Their power proved to be extremely devastating in the phenomenon of *ecological crisis*, in which human *survival*/itself was called into question.

Bioethics (*ethics of life*) arises as an attempt to give an answer to all this issues. Even though the issues concerning nature and non-human living beings were mainly left out from bioethics in Anglo-American tradition, it should be emphasized that the idea of bioethics presented by its founder (introducer of the term) *Van Rensselaer Potter* contains *all ethical issues related to life*. Moreover, in the very title of his book *Bioethics: Bridge to the Future* (1971) it is clearly indicated that bioethics cannot be limited to biomedical issues. According to his idea, the bridge that should enable our future at the same time should also be a bridge between two separated areas of human knowledge that, for the sake of survival, must get into dialogue – humanities and natural sciences. But the area where bioethics particularly spreads horizons of traditional ethics is the *inclusion of non-human living beings into moral consideration*. Bioethics gained an additional legitimacy for dealing with this issue by discovery of *Fritz Jahr* who, without anyone knowing, had introduced the term "bioethics" (*Bio-Ethik*) in 1926, and defined it as an ethics that deals with human's moral attitude towards all living beings.

In the "BEAGLE: Bioethical Education and Attitude Guidance for Living Environment" project, we are primarily concerned (as the very name of the project suggests) with the "living environment", i.e. non-human living beings in our environment. We are not dealing only with the moral issues concerning human's devastating conduct towards environment for the humans' sake alone, but also for the sake of all those animals and plants that are harmed in our irresponsible and unrestrained actions.

In which ways does human *mistreat his living environment*? If we start from the concrete examples, we must point out the *cruel ways in which people treat animals* for eating, clothing, entertainment, war, experimentation, etc. These procedures are rarely morally justified. Human also mistreats those animals that usually have a privileged status, i.e. pets. Animals are also harmed in indirect ways. By *destroying plant life*, we destroy *animal habitats* as well. We are also *destroying biodiversity* by growing monocultures, by excessive use of pesticides and generally by *pollution*



of soil and water. This is certainly encouraged by the *consumerism* of Westerners. Excessive use of fossil fuels and excessive meat production are causing *global warming*. The catastrophic consequences of this phenomenon are threatening to almost all living beings. Particularly dangerous and unpredictable human activity is present in genetic manipulations over living world. There also arises the question whether a human has the moral right to intervene in the intimate genetic structure of living beings.

How does bioethics face this issues? Its task is still *ethical* – it must develop a *rational argumentation* on which the moral concern for non-human living beings, the duty of concern for future generations, and the construction of a new sensibility are based. In other words, bioethics is not limited on *defining the duties* we have towards the living world, but also it imposes the *construction of a character* that will not fall for the irresponsible way of life and for the unrestraint destruction of the planet. However, bioethics has to go *beyond ethics*. It has to reflect on *paradigms of knowledge* and *socio-economic constellations* by which our behaviours and worldviews are partly driven. It must take into account the *ethical tradition* that reflected this issue (from ancient philosophy to the later authors such as Arthur Schopenhauer and Albert Schweitzer), ethical and *philosophical positions* that did not reflect it but can provide important contributions to its reflection, and finally, various other *scientific and non-scientific insights* that can directly or indirectly illuminate this issue. Here ethics, which prescribes *what we should do*, is of no use if biology does not explain *what a living being is*. There is no less value in *cultural insights* that reveal what are animals and plants *to us*, i.e. what they were for us, under which circumstances, and in which worldviews. A bioethicist is also obliged to take into account *artistic sensibility*, which in many cases pointed to the devastating tendencies of Western civilization even before scientific and philosophical insights. They must generally seek for incentives in *all the areas where human knowledge accumulated* (for instance, in great religious writings).

The most adequate concept that can comprehensively cover all of these different guidelines is *integrative bioethics*. This concept tries to *integrate these perspectives* in order to reach orientation that could not be provided by them as *separate*. Moreover, in their separation, these perspectives fell into harmful *reductionism*. Human power developed rapidly, primarily in the techno-scientific sphere, and it was taken for granted that this development is good in itself. The atomic bomb was the first obvious indication that this belief was wrong. That is why bioethics must go in the direction of integrating different perspectives or, in other words, strive to change a *mono-perspective* into a *pluri-perspective* insight. Even though science is extremely important in this respect, it must not have a *monopoly over knowledge*. Of course, the integration cannot be arbitrary, but it should have *ethics* (or philosophy in general) as a *cardinal discipline*, because the purpose of bioethics is to seek *moral orientation* in the new circumstances. We are looking precisely for orientation or *guidance* – ethics cannot serve as a list of complete answers. It always requires active *prudence* of every moral agent, as it was clear to Aristotle, Immanuel Kant, and many other great ethicists. Therefore, neither bioethics can offer complete knowledge in the form of *usable knowledge*. This is another point that shows the need to *overcome the paradigm of knowledge* imposed by *mechanistic* way of thinking (ethics is not and cannot be an algorithm!), mechanistic way of observing the living world (a living being is not a machine or a genetic data network!) and mechanistic way of behaviour (human is not and should not become a machine!).



4. Bioethical education

Bioethical education (or bioethics education) appears along with the emergence of bioethics as an academic discipline in the 1970s.¹⁶ In North America, bioethical education was included in the curricula of certified medical schools early in the 1970s.¹⁷ In the Western Europe, bioethical education systematically appeared in the 1980s, while, in the Mediterranean Europe, courses in “medical deontology” were included earlier, mainly in relation to the duties of doctors. During the 1980s and 1990s, bioethical education was included mainly in medical curricula in the United Kingdom, the Netherlands, Nordic countries, as well as in countries of Central and Eastern Europe.¹⁸

During the recent decades, bioethical education extended from the undergraduate medical curriculum to clinical education, health training, and postgraduate programs. Henk ten Have¹⁹ suggests six aspects that featured the gradual expansion and dissemination of bioethics education in medical schools in the following decades: Bioethics education (1) expanded in areas of medical specialization and continuing education; (2) developed in other health professionals in areas of health-care, research facilities, and laboratories; (3) advocated for other similar scientific disciplines such as biology, genetics, and the emerging biotechnology; (4) applied widely in graduate students, young scientists, and experts in areas of health-care, research, and laboratories; (5) extended widely in the general public and policymakers; (6) advanced rapidly in online ethics courses and program for health professionals. Finally, the global outreach and the international perspective of bioethical education have been also highlighted as part of the recent year’s development.

Moreover, bioethics and bioethics research have spread from medical bioethics to a wide variety of areas that we can describe as an area that includes all kinds of relationships between man and nature. “The survival of human society and the species *Homo sapiens* and the best outcome of the relationship between man and his environment is the essential aim of bioethics.”²⁰



Different approaches and methods in bioethical education

The need for quality bioethical education is one of the fundamental issues of education today. Of course, bioethical education has same problems and benefits as ethical education. Here in our BEAGLE project we concentrate in early (bio)ethical education, which is why we are going to develop different approaches in teaching bioethics regarding different age groups. For young children EVE (Ethical and Value education) is very useful.²¹

"How should bioethics be taught? A variety of didactic approaches are presented in the literature ranging from plenary lectures, small-group discussions, and movie triggered debates, and role-playing. The majority of medical schools in the USA are using four teaching methods: discussion/debates, readings, writing exercises, and lectures".²² There are lots of different approaches in bioethical education. All didactic approaches mentioned can be very useful. Here in BEAGLE project we will use some proven methods but also we will include some new innovative approaches. Arnold E. Fox in 1995 describes different models for medical ethics education: "The traditional model of bioethics education, therefore, emphasized particular teaching methods: lectures, small-group discussions, and reading. Nowadays, more alternative models are flourishing, using a broader range of methods such as student presentations, movies, patient interviews, panel discussions, mock trials, and emphasizing more active learning through games, role-playing, and interviews with simulated patients".²³ We will use a lot of these approaches for early bioethical education; of course we will have approach with simulated interviews but with different animals and plants (not with patients). Our bioethical topics are more directed to increase sensibility in children toward animals, plants and environment. "The bioethics incorporates questions into environmental education – such as why we need to protect the environment, what if species becomes extinct, what the respect to nature means or whether we can both utilize and protect it at the same time, and paves the way for right to life and exist for all living forms including human, and thus playing a huge role in the provision of sustainability not only for human but also for the nature."²⁴

Bioethical topics such as environmental protection, positive attitude towards animals, preservation of plant species etc. are very tough and demanding. This is why it is necessary that topics in work with children need to be presented in a fun and instructive way. Main aim is to make children aware of these problems and increase sensitivity to nature.



5. European Union strategies in bioethics education

According to the subsidiarity principle stating that the education is a matter under the direct competence of the Member States, the European Union doesn't have its own educational policy, and it is evident that it also does not have a specific policy concerning bioethics education. For the same principle, general ethical and bioethical questions are not seen as an issue for the European Union, and the EU does not have any legislative competence for policy areas in which bioethical questions are central. However, this does not mean that the European institutions are not interested in bioethics; although bioethical issues are not within the purview of the EU, the swift development of technologies is creating a practical need for the EU to take this new responsibility and to make the new decisions within this domain. Starting from the Paris Summit of the European Economic Community on the protection of the environment and on the improvement of the quality of life, in 1972, several actions have been started following the first Community action programme. In particular, the signature of the Treaty of Maastricht, in 1992, set up that the prior objective of the European Union is promoting a sustainable and environmentally friendly growth. Similarly, the Conventions on climate and biodiversity and the Agenda XXI, that have paved the way to all the main actions on environmental protection at local and national level, have been strongly supported also at European level.

Since the end of the 90s, the debate on bioethical issues at the European level has developed rapidly. First international organisation to adopt a binding international agreement dealing with ethical issues (in the context of new biomedical technologies) is the Council of Europe. On 4 April 1997 they adopted 'Convention on Human Rights and Biomedicine' (also known as "Oviedo Convention") which has a goal of providing a common, minimum level of protection in the field of biomedical research throughout Europe. As stated, although ethical and bioethical questions in general were not seen, for a long time, as an issue for the European Community, at the turmoil of the millennium, attitude towards ethical and bioethical questions has shifted towards them positively. For instance, the European Commission, in order to tackle the need for advice on bioethical problems, has set up a number of advisory bodies, such as the European Group on Ethics in Science and New Technologies (EGE). The EGE was set up for its first mandate in 1997, to serve as a consultative body and to "provide for independent and pluralist advice on ethical aspects of science and new technologies". During its first mandate from 1998 to 2000 the EGE provided opinions on subjects such as human tissue banking, human embryo research, personal health data in the information society, doping in sport and human stem cell research.

In the context of the EU, the most important document and actually EU's main framework for fundamental rights and for some bioethical questions is the "Charter of Fundamental Rights". Signed in year 2000, the Charter establishes an integral catalogue of fundamental rights in the European Union. It encompasses not only civil and political rights, but also social and economic rights and principles as well as principles addressing the challenges of modern society, which include bioethics. Bioethical element is the key component of the Charter, since it places the inviolability of "human dignity" in its first article, making it the foundation of the whole text. Today, bioethical issues are in fact present in many areas of the EU competence such as: Internal Market, Public Health, Research and Technological Development, Development Cooperation, etc.

For its relevance for education and innovation, it must be underlined that all the research projects funded by the European Union have to consider ethical issues as an integral part of their activities. For our key example, ethics are set as the highest priority and are dealt with extensively in EU funded research programme called Horizon 2020. Being the biggest EU Research and



Innovation programme ever, with almost €80 billion of funding available from 2014 to 2020, Horizon 2020 proclaimed that all the activities carried out under it must comply with ethical principles, as well as relevant national, EU and international legislation, for example the Charter of Fundamental Rights of the European Union and the European Convention on Human Rights. Ethical research conduct implies the application of fundamental ethical principles in all possible domains – and the most common issues tackled by the Horizon 2020 programme include research involving animal experimentation, dual use or misuse, genetic modification, data processing, medical intervention, children, patenting of research findings, ethics and Social Sciences, and *Environmental and Development considerations*.

Also among the EU Member States that are not included in the BEAGLE project, there are still few experiences of bioethics education in schools, and the most interesting good practices are at university level, focusing in the organisation of a curriculum and in the development of training courses in bioethics education:

- BEEP – BioEthics Education Project, run by the University of Bristol, in the UK, has a very rich set of materials, where students can find information on a wide range of bioethical issues, activities and challenges, online discussion to help them practice argument; and teachers can find several teaching resources matched to A level syllabi.

<https://beep.ac.uk/content/1.0.html>

- Bioethics & Society MSc, run at the King's College in London, offers an original approach to bioethics, allowing students to understand the social and political contexts in which bioethical controversies arise and proposed solutions are developed. The course is mainly addressing health professionals, policy makers and shapers, willing to understand the ethical and societal issues in biomedicine, neuroscience, and health policy today.

<https://www.kcl.ac.uk/study/postgraduate/taught-courses/bioethics-and-society-msc.aspx>

- The KU Leuven University offers a Master of Bioethics targeting health care and other professionals interested in medical ethics confronted with moral questions and dilemmas challenging them on a daily basis.

https://onderwijsaanbod.kuleuven.be//opleidingen/e/CQ_53597572.htm#activetab=diploma omschrijving

- The University Paris I Panthéon Sorbonne organises a Master in Applied Ethics, Social and Environmental Responsibility proposing ethical questions applied to the environment and social responsibility. In addition to the seminars, the students are also carrying out two study missions, applying in real life situations the concept acquired in classroom.

<http://www.pantheonsorbonne.fr/diplomes/ethires/>

- A Master's degree in Ethics, Ecology and Sustainable Development is run at the Université Lyon III Jean Moulin, in France. The master allows to deepen the questions of vocabulary, to acquire analytical tools, collective working methods and project management based on the founding principles and fundamental values of sustainable development, and to prepare students to the ethical, legal and political issues facing all human organizations today.

<http://www.univ-lyon3.fr/master-sciences-humaines-et-sociales-mention-philosophie-specialite-ethique-et-developpement-durable-64584.kjsp?RH=PHI-FORM-master>

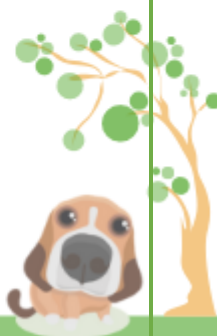


- The Centre for Research Ethics & Bioethics of the University of Uppsala, in Sweden offers courses on several topics concerned with ethical issues, such as: medicine, nursing, engineering and other professions involving responsibility. The topics include: public health ethics, neuroethics, ethics and law for medical students, ethics for nursing, ethics for biology, medicine and pharmacy, research ethics for science and technology and for social sciences.

<https://www.crb.uu.se/education>

- Faculty of Philosophy of the Sofia University "St. Kliment Ohridski" in Bulgaria organizes a Master in Integrative Bioethics that offers theoretical knowledge and practical training in many fields of bioethics. The study programme includes courses concerning the development of contemporary biomedical issues, but also issues concerning ecology and environment protection, philosophy of nature, philosophy of science, etc.

https://www.uni-sofia.bg/index.php/eng/the_university/faculties/faculty_of_philosophy/degree_programmes/master_s_degree_programmes/faculty_of_philosophy/philosophy/integrative_bioethics



6. State of the Art in early bioethical education

6.1. Croatia

Even though there is no specific school subject or curriculum dedicated to bioethical education in Croatian primary schools (6 to 14 years old), certain bioethical contents can be found in existing school subjects and curricula, concerning the relationship between man and nature, bioethical values, environmental protection etc. Here we present broad topics that include these contents.

However, it is important to mention that there is an elective subject of ethics that is entirely dedicated to bioethics in the 3rd grade of secondary school. Even though we do not deal here with secondary education (14 to 18 years old), presentation of contents of this subject can be very useful as an model for inclusion of bioethical education in at least higher classes of primary school (10 to 14 years old).

Finally, we present extra-curricular activities and examples of good practice concerning bioethical education in Croatia.

Obligatory subjects in primary school

1st – 4th grade (6–10 years)

First four grades in primary school include obligatory subject “Nature and society”. This school subject contains many aspects bioethical education, especially concerning learning about nature, living beings, and environment, as well as about human conduct towards them. In first three grades “Nature and society” is performed in two school hours per a week (70 in a school year) and in 4th grade in three school hours per a week (105 in a school year).

In the 1st grade pupils can learn about changes in nature, impact of seasons (autumn, winter, spring and summer) on human life and life in general. More direct bioethical education can be found in lectures about environment itself and the impact of man on the environment.

2nd grade contains in this sense useful topics as the utilization of water in our homeland. However, 2nd grade’s content especially relevant for bioethics is protection and preservation of the environment, i.e. understanding human impact on environment, and learning of how pupils can contribute to the protection, preservation and improvement of the environment. This also includes an issue of the waste from garbage.

In the 3rd grade pupils learn about geographical and biological facts on environment (different kinds of environment, waters, plants and animals in water, the meaning of water for human life). They also learn about economy and environmental quality, about protection and preservation of the environment, and about relationship between



human activity and environmental pollution. They propose measures of protection and learn about animal and plant protection laws.

4th grade includes learning about the differentiation of living and non-living nature, living conditions, and correlation between living and non-living nature and living conditions. There are also topics concerning life on the planet, animal life, forest, sea, lawn, and human body.

5th – 6th grade

In these two years the school “Nature” subject contains additional bioethical topics or references to them. This school subject in 5th grade is performed in 1,5 school hour per a week (52,5 school hours). “Nature” in 6th grade is performed in 2 school hour per a week (70 school hours).

5th grade includes learning about natural sciences and knowledge of nature, development of the multiple organism from the cell, animal organism, behaviour, reproduction, needs, and habitats, etc. There are topics concerning human’s life needs and nutritional habits, about flowering plant, etc. Especially relevant for bioethics are lectures on growth and consumption of food in our country and in the world, and on protecting plants and animals.

In the 6th grade pupils can learn about living beings, their habitats and living conditions, including the usage of forests (pollution and protection), the usage of sea and land water (pollution and protection), and livestock communities and grassland protection.

7th – 8th grade

In the last two grades of elementary school there is school subject “Biology”, which contains more scientific approach. The aim of the biology teaching is to provide students with knowledge of the basic biological principles, basic structure and functions of living creatures, to develop a naturalistic way of thinking, to learn the methods of nature research, and to develop readiness and appropriate responsibility for the application of acquired knowledge in life. Students learn about body functions of animals, DNA, bones, muscles etc.

Secondary education as the model for the primary

As it is described above, 3th grade of secondary school subject ethics can be useful for enriching the primary education (by introduction of a new school subject, or by integrating adequate parts of this secondary school subject into the existing primary school subjects). Its “Man in a World of Nature” topic includes the following:

Man in a living world

- ✓ Anthropocentrism and biocentrism. - Man as the master of nature. Man as the first among equals. Biodiversity.
- ✓ Man and the animal kingdom. - Animal rights. Animal exploitation. Protection of endangered species.
- ✓ Man and the world of plants. - Photosynthesis as a condition of survival. Manipulating vegetation. Our parks.



Bioethics as an answer

- Survival. – Threats of self-destruction. Who is responsible? How to survive in the future.
- Quality of living. – Improving the quality of life as a challenge. How to live better. What kind of life do we want?
- Responsibility in technological civilization. – Technological feasibility and ethical admissibility. Ethics and technology.

Medical bioethics

- The ethics of human reproductive technologies. – Human embryos status. Manipulation with human life. Abortion.
- Organ transplantation ethics. – Organ donation. Xenotransplantation. Organ trafficking. Who has the advantage?
- Ethics of dying and death. – Problem about death. Brain and death. Suffering and palliative medicine. Euthanasia.

Bioethics and biological sciences

- Biology, evolution i eugenics. – The origin of life. Evolutionism. Eugenics as an aid to natural selection.
- Genetics and biotechnology. – Genetic engineering. Genetic therapy. Cloning.
- Freedom of research and responsibility of scientists. – Knowledge is power. Limitations of freedom. Survival and science.

Ecology and environmental protection

- Ecological movement and ecological ethics. – Environmental care. Ecological responsibility. Ethics and ecology.
- Environment as a shared living space. – Ecosystems. Pollution and global warming. Agreement with nature.
- Ecological awareness. – Personal engagement. Walking on green areas. Afforestation. Landfill.

Extra-curricular activities

Schools in Croatia are obliged to organize extra-curricular activities, which are often dedicated to environment. They can be concentrated on practical activities, but also on the more scientific ones. However, in most cases these are interconnected. One of the most famous extra-curricular activity is the competition of young biologists in which pupils from 7th and 8th grade of elementary school can participate.



Examples of good practice

Not only that primary schools in Croatia don't have a specific school subject dedicated to bioethics, but there is also lacking of specific official training for teachers regarding these topics. However, schools can be involved in the projects concerning bioethical education. Therefore, examples of good practice are mostly connected with the project activities governed by NGOs. Here we present two of these projects.

Projects

These two projects are created and implemented voluntarily by the Association "Petit Philosophy".

Look at One's Own Thinking program consists of 35 workshops for the whole school year for pupils of third and fourth grade of elementary school. It is implemented through Power point presentations that are made in a form of a comic in which animated teachers, such as Sophia the owl, Pak the Crab, Malik the deer and others have an important role and ask children fundamental questions about the subject, and in this way motivate the pupils to in a fun and structured manner think about a given subject. By creating and understanding one's own thinking, but other's also, communication skills, social and argumentation skills are developed, that we need for constructive thinking, as well as for quality implementation of Socratic dialogue on which this project is based. One of the topics is strongly connected with bioethics. This is workshop leaded by animated character Anuška the Mediterranean monk seal. In the workshop "Anuška, the Mediterranean Monk Seal" workshop children reflect upon their relationship with nature, especially the sea, the coast and the marine living beings. Through Socratic dialogue, children are considering and discussing environmental pollution, their relationship with animals and the environment.

R-evolution today or *The sea and coastal area as places to reflect on your relation to nature* is project in which participants raise awareness about origins and present features of plant and animal species, and about the importance of biodiversity. Break the prejudice and fears based on visual appearance and habit of perceiving "ugly" as "bad". Represent human impact on the environment and understand how one personally impacts the environment by acting in a certain way.



6.2. Greece

Early bioethical education in Greece

In Greece, compulsory education (6-15) includes the six years of Elementary School (6-12) and the three years of the Gymnasium or Middle School (12-15). Elementary School is part of the Primary Education in Greece, while the Gymnasium is part of the Secondary Education. Bioethical education is not systematically treated throughout the curriculum of early education in Greece. There is not a single course or subject related to bioethics or bioethical education. Some discussions and issues of environmental education are sporadically found throughout the curriculum of early education but not in direct relation to a bioethical framework. It should be also noted that the students are introduced to the subject of Philosophy at the second year of the Greek Lyceum (11th Grade). The subject is offered to the students that follow the theoretical direction. For the same students, the subject of Philosophy is offered as an elective in the 12th Grade. The Philosophy schoolbook covers the main philosophical themes and questions including Philosophy of Language; Ontology; Philosophy of Science; Body and Soul; Ethics; Politics; Aesthetics; Philosophy of Nature, Culture and History. Bioethical issues are indirectly covered in the section of Ethics (chapter 6). The discipline of bioethics is further included in the subject of Biology in the 12th Grade as well as the subject of Religion in the 11th Grade.

Environmental Education

In regards to environmental education, its importance in the Greek education system has been emphasized in the early 1990s and particularly with the enactment of Law 1892, Article III /1990. In particular, this law highlighted the role of environmental education as “a process that leads to responsible individual and group actions with positive results to both the biophysical and sociocultural environments and assists with the development of critical thinking, problem solving and effective decision-making skills”.²⁵ In the aims of this law, elements of bioethical attitude and education on environmental issues and concerns are indicated such as the increase of awareness and the positive change of attitude and behavior towards natural and social environments. Moreover, as it has been reported, the above practices have been related to the commitment of the Ministers of Education from the country members of the European Union (1988) for the action, promotion, and development of environmental education in Greece and particularly: “(a) the promotion of environmental education in all grades of education; (b) the consideration of the environmental education goals in the designing of school programs; (c) the importance of environmental education in teacher training; and (d) the need to supply schools with environmentally positive educational equipment”.²⁶

The Elementary School

The above aims have been to an extent integrated in the curriculum of the Elementary School and particularly the subject of Environmental Studies included from the 1st to the 4th Grade (6-10) of the Primary School. In the 1st and the 2nd Grade the teaching hours are 4 per week, while in the 3rd and the 4th Grade the teaching hours are 2 per week. Some elements of bioethical awareness in terms of environmental issues could be identified in particularly sections of the Environmental Studies schoolbook such as:



- “We Study the Environment” (1st Grade)
- “The Animals”, “The Plants”, “Water” (2nd Grade)
- “Plants and Animals of our Country: Natural Environment and the Human Being – Relationships” (3rd Grade)
- “Nature is our Home: Natural Environment and Protection” (4th Grade).

Sections on the human body and the protection of the environment are found intermittently in the Sciences subject of the 5th and the 6th Grade but not in direct relation to bioethical issues and education. Nevertheless, as it has been reported, despite the adequacy of the relevant themes and the organization of the corresponding courses, the total syllabus “is too large to be taught within the time schedule envisaged”.²⁷

The Gymnasium - Middle School

During the three years of the Gymnasium only sporadic references are made on bioethical issues in the relevant schoolbooks such as:

- Environmental concerns about pollution and overpopulation in the subject of Geography (7th and 8th Grades)
- Bioethics concerns in Genetics and Biotechnology in the subject of Biology (8th and 9th Grades – See schoolbook, chapter 6.3)
- Animals and Humans in the subject of Texts in Modern Greek Literature (8th Grade – See schoolbook, section “Animals our Friends”)
- Genetics, Cloning and Personal Freedom in the subject of Social and Political Studies (9th Grade – See schoolbook, section 12, “Rights and Obligations”)

Finally, it has to be noted that the bioethical discussions are included to wider extent in later years of secondary education and the Greek Lyceum, particularly in the subject of Biology in the 12th Grade (see schoolbook, chapter 12 “Bioethics”) and the subject of Religion.

Example of good practice

An example of good practice that is related mainly to the Greek Lyceum students has been inaugurated with the project “Bioethics go to school” organized by the *Hellenic Republic National Bioethics Commission* and in the context of the “Educational Activities for Schools”. From November 2011, “the Commission started a series of educational activities for schools (Secondary Schools and High Schools) related to bioethics. Subjects include cloning, human genome mapping, euthanasia, transplantation, management of biological wealth, medically assisted human reproduction” (HRNBC).²⁸

Online means of communication (via Skype) have been used for school presentations with more recent examples: the Varvakeio Secondary School, the 2nd General High School of Alimos and the Experimental High School of Thessaloniki. On campus presentations have been systematically used with emphasis to bioethical education with more



recent examples: PIERCE – American College of Greece and the 3rd General High School of Glyfada. The philosophical, biological, and religious questions of bioethical issues have been particularly discussed.

The *Hellenic Republic National Bioethics Commission* provides an open source booklet for students with the title: *What do I know about Bioethics: ... to be informed, to enquiry, and to decide ...*, edited by Takis Vidalis and Vasiliki Mollaki, 2nd edition, published by the HRNBC, 2016. The booklet is well structured and includes an informative introduction to bioethics (ch. 1) and a wide range of issues on bioethics such as:

- Transplantation (ch .2)
- Decisions about the end of life (ch. 3)
- Research on humans and plants (ch. 4)
- Genetics (ch. 5)
- Infertility Treatment (ch. 6)
- Genetically Modified Organisms (ch. 7)
- Stem Cells and therapy issues (ch. 8).

The booklet includes sources and bibliography for further reading and relevant links in each chapter.²⁹



6.3. Italy

Introduction

In Italian, the word "bioethics" (= "*bioetica*") is mainly used to refer to medical ethics, while the words "environmental ethics" (= "*etica ambientale*") and "eco-ethics" (= "*ecoetica*") refer instead to the discipline in philosophy that studies the moral relationship of human beings to, and also the value and moral status of, the environment and its non-human contents.³⁰ Such a linguistic distinction is functional to investigate the state of the art in "early bioethical education" in Italy, given the difference in meaning as described above.

This definition implies that, on the one hand, the "material object" of environmental bioethics (= what environmental bioethics deals with) is the relationship of human beings to the environment; on the other hand, the "formal object" of environmental bioethics (= the point of view of bioethics) is the ethical-philosophical reflection.³¹

Compulsory education in Italy is divided into Primary School (= "Scuola Primaria"; ages 6-10), and Lower Secondary School ("Scuola Secondaria di Primo Grado"; ages 11-13). *In Italy neither of the two levels of compulsory education includes a specific subject or curriculum dedicated to environmental ethics.*

Nevertheless, over the last 20 years, teachers have autonomously introduced their students to such subject, given the importance of arising young people awareness about environmental issues. Since environmental ethics requires an interdisciplinary approach, schools often propose their pupils to deal with such issues through cross-curricular connections between subjects (geography, history, science, technology, arts).³²

It is important to underline that quite often school teachers and educational programmes refer to this kind of awareness as to "*environmental education*" (= "*educazione ambientale*"), with no direct reference to ethics or bioethics. Indeed, the words "ethics" or "bioethics" generally evoke very specific issues, and teachers tend to think that such issues bear no relation to school education; consequently, it can be safely assumed that schools offer "bioethical education" under the name of "environmental education" without realizing they are approaching bioethical issues or they are offering a bioethical point of view.³³ This consideration, too, is functional to investigate the state of the art in "early bioethical" education" in Italy.

Also, on the institutional side, over the last 20 years Italian legislation has approached the issue of teaching environmental ethics in schools. The debate finds its origins in the '90, by the Italian National Committee for Bioethics, and expands after the year 2008, following the introduction in schools programmes of the subject "*Citizenship and Constitution*". So far, if on the one side such attempts have failed the goal of setting environmental ethics as a formal autonomous subject/curriculum into school subjects, on the other side they have offered several non-binding suggestions (sometimes very accurate, precise and detailed) to teachers and educators who wish to deal with this subject.

Below, a short analysis of these instruments and suggestions is provided.



Italian legislation regarding early bioethical education

Italian National Committee for Bioethics

has provided suggestions on different occasions:

- 1) in 1995, by a document titled "*Bioethics and Environment*".³⁴ In such document, for the first time the Committee deals with the issue of protecting the environment, stating that:
 - although *the Committee* is not entitled to suggest instruments to protect the environment, it *is entitled to sensitize people about the fact that protecting the environment is a bioethical issue*;³⁵
 - in order to promote young people awareness about their rights and duties, it would be *profitable to teach environmental ethics in schools of any grade*.³⁶
- 2) on July 15th 2010, by a document titled "*Protocol of Understanding between the Presidency of The Council of Ministers - National Committee for Bioethics and the Ministry of Education, University and Research*".³⁷ In such *Protocol*, the Ministry of Education and the National Committee for Bioethics commit themselves to undertake *common initiatives aimed to include bioethics education into schools, so that new generations will be granted a fair participation into the political debate related to bioethical, social and legal issues originated by the development of technology and science*.³⁸ This target will be reached by including education on the most important bioethical issues (among which, *animal protection and environmental protection*) into *school curricula*, possibly linking these topics to, or embedding these topics into, the subject "*Citizenship and Constitution*".³⁹
- 3) on July 16th 2010, by a document titled "*Bioethics and Education in Schools*".⁴⁰ In such document the National Committee for Bioethics states that: "*the protection of the environment shall be granted by a responsible use of scientific and technological development, which is one of the main purposes of bioethics*". Mass-media debate on bioethics is confined to medical bioethics, but bioethics has instead a broader meaning, given it refers to the "*the systematic study of the moral dimensions – including moral vision, decisions, conduct, and policies – of the life sciences and health care, employing a variety of ethical methodologies in an interdisciplinary setting*".⁴¹ "*Bioethics embeds important and relevant dimensions, such as environmental bioethics and animal bioethics*".⁴²

Italian Parliament

In 2008 the Italian Parliament passed a law which introduces in schools the subject "*Citizenship and Constitution*".⁴³ The law is directed to schools of any grade (3-18 years), and came into force in the academic year 2009/2010. The subject "*Citizenship and Constitution*" is aimed to teach students democracy, respect for the law and to educate them to active citizenship.

The subject "*Citizenship and Constitution*" is not an autonomous subject and there is not a specified number of teaching hours allocated for it (it is taught in connection between other subjects: geography, science, history, sociology), nor it addresses specifically bioethical or environmental issues.

Nevertheless in 2009 the Ministry of Education specified that among the educational goals of the subject "*Citizenship and Constitution*" there is to promote young generations' commitment towards their own and other people



well-being, and that this goal shall be reached also via the protection of the environment.⁴⁴ In 2010 the same Ministry clarified that the subject "*Citizenship and Constitution*" shall include topics such as bioethics, environmental awareness and sustainable development.⁴⁵

Ministry of Education and Ministry of the Environment

On three different occasions the Ministry of Education and the Ministry of the Environment have jointly provided very detailed suggestions and instructions directed to school teachers regarding environmental issues. None of the documents issued by the Ministries refers explicitly to bioethics or offers a specific bioethical point of view but, in accordance to what has been stated in the Introduction, it can be assumed that the Ministries have intended to approach bioethical issues and to raise a bioethical debate among students:

- 1) in July 2009, by a document titled "*Protocol of Understanding on School, Environment and Respect for the Law*". The *Protocol* states again that environmental awareness and sustainable development shall be included as part of the teachings of the subject "*Citizenship and Constitution*",⁴⁶ and identifies the goals that shall be reached by teaching environmental awareness and sustainable development.
- 2) in December 2009, by a document titled "*Guidelines for Environmental Education and Sustainable Development*".⁴⁷ This is a very detailed, weighty and accurate document, which provides innovative perspectives in environmental awareness and sustainable development, in order to help schools drawing up curricula and organizing their educational activities.⁴⁸ Also, the *Guidelines* identify the strategic priorities of environmental education and sustainable development, which are⁴⁹:
 - protection of biodiversity and natural resources
 - combatting climate change and air pollution
 - promotion of renewable energy sources and energy conservation
 - waste management
 - contrast to environmental crimes and Eco Mafia
 - protection of the sea
 - pollution prevention, particularly in urban areas

The *Guidelines* focus on these topics:

- to provide suggestions for developing school curricula;
 - to identify the skills to be developed within the subject "Citizenship and Constitution";
 - to provide ideas and suggestions for drawing up learning processes.
- 3) in 2014, by a document titled "*Environmental Education Guidelines*".⁵⁰ This is also a very detailed, weighty and accurate document which aims:
 - to promote students of any age awareness towards sustainable development, in order to help them to call into question the actual models and to improve them, and in order to design alternative models;



- to create teaching models for teachers, in order to grant that all over Italy teachers have homogenous basic skills and knowledge.

The *Guidelines* offer 8 different educational projects, each of them approaching one of the strategic priorities listed by the 2009 "Guidelines for Environmental Education and Sustainable Development". These educational projects offer a very practical model which can be easily put into practice by teachers (3-18 years).

Examples of good practices

As it has been underlined in the Introduction to the analysis of the "state of the art" in Italy, often school teachers and educational programmes offer "bioethical education" without realizing they are approaching bioethical issues or they are offering a bioethical point of view.⁵¹

So that schools and Institutions all around Italy offer learning/educational projects that, even if not directly mentioning a bioethical point of view, offer a bioethical approach. Below, a list of some of the more interesting projects:

Istituto Comprensivo "Emma Castelnuovo"

The *Istituto Comprensivo "Emma Castelnuovo"* is a group of schools (Nursery Schools, Primary Schools, Lower Secondary Schools – students aged 3-13) located in the city of Latina. In the academic year 2017/2018 it offered a programme of environmental education directed to all their students (aged 3-13), covering several different areas and issues. The programme aims to analyse the environment under an ethical point of view (as stated by the programme itself) in order to promote legal and correct attitudes among students and their families. It also suggests a variety of outputs to be produced by students, a variety of practical tools to investigate such issues, plus assessment and verification criteria to evaluate the knowledge acquired by students.

<http://www.icpontedinonavecchiolunghezza.gov.it/wp-content/uploads/2017/10/PROGETTO-DISTITUTO-2017.18-pdf.pdf>

Istituto Comprensivo Gabicce Mare "G. Lanfranco"

The *Istituto Comprensivo "G. Lanfranco"* is a group of schools (students aged 3-13) located in the city of Gabicce Mare (province of Pesaro and Urbino). One of the Primary schools (ages 6-10) of the *Istituto Comprensivo*, in the academic year 2016/2017 offered a programme of environmental education, covering several different areas and issues (name of the Programme: "*Ci piace un mondo*"). The Programme aims to analyse the environment in order to promote legal and correct attitudes among students and their families. It also suggests a variety of outputs to be produced by students, a variety of practical tools to investigate such issues, plus assessment and verification criteria to evaluate the knowledge acquired by students.

http://www.icgabicce.gov.it/attachments/article/955/Ci_piace_un_mondo_progettodi_plesso.pdf



Primo Circolo Didattico "E. Rossi"

It is a group of schools (students aged 3-10) located in the town of Acicatena (Province of Catania). In the academic year 2017/2018 it offered a programme of environmental education (name of the Programme: "*L'ambiente siamo noi*") directed to all its students. Among others goals, the Programme aims to:

- promote students' active citizenship, by making them responsible for their own health, for other people well-being and for the environment, respecting the law and under an ethical point of view;
- to raise students awareness about environment natural and social value.

http://www.scuolarossiacatena.gov.it/documenti/progetti/PROGETTO_ED_AMBIENTALE.pdf

Lower Secondary School "San Giovanni XXIII"

This Lower Secondary School (students aged 10-13) located in the town of Pescate (Province of Lecco), in the academic years 2013/2014 and 2014/2015 offered its students a programme of environmental education (name of the Programme: "*L'Orto del Paradiso*"), aimed to raise their awareness through the design and realization of two green spaces: a vegetable garden and a green area hosting art installations. The Programme, even if not directly mentioning any ethical objective, has a strong ethical point of view and a social inclusion goal, since it not only develops students' respect towards environment, but it also: involves a disabled person in the design and maintenance of the two green spaces; plus the green spaces have been designed in order to be available for blind people.

<https://www.icslecco4.gov.it/sito/wp-content/uploads/2014/10/Progetto-lorto-del-paradiso.pdf>

Board Of Education of the Lombardia Region

In 2014, the Board of Education of the Lombardia Region (in the above-mentioned document titled "*Guidelines for environmental education and sustainability*") analysed the state of the art of environmental education in the Lombardia Region, pointing out that environmental education shall include an ethical point of view, and that the goals of a bioethical education is to raise a responsible attitude in students and to allow students to take responsible decisions towards the environment.⁵²

The *Guidelines* also describe the environmental educational programmes developed by schools in Lombardia. It results that many of such programmes have a philosophical-ethical focus, especially programmes developed by schools in the Province of Bergamo, due to the active participation and involvement in such programmes of the "*Centro di etica e di educazione ambientale di Bergamo*" (= Bergamo Centre of Ethics and Environmental Education).⁵³



6.4. Slovenia

There is no specific school subject or associated curriculum dedicated to bioethical education in primary schools (6 to 14 years old) in Slovenia. However certain contents (bioethical principles, bioethical values, relationship and value of the environment) that fall within the scope of bioethics are present in existing school subjects. Below is a presentation of these contents as embedded at various stages of primary education. First, we focus on obligatory subject and then move to elective subjects and extracurricular activities.

Obligatory subjects

1st – 3rd grade

In first three years in primary school there is the subject titled *Environment*, which is partially related to bioethical education (in duration of 3 hours per week in each school year). The subject promotes education for a sustainable development, which includes addressing questions about the environmental, economic and social correlations between human being and environment and similar issues.

4th – 6th grade

In these three years the following school subject contain contents or references to bioethical themes: *Society, Geography, Natural sciences, Technics and technology*. They last from 1 to 3 hours per week. They present and engage with the following topics related to bioethical education: awareness of the value and sensitivity for the natural and anthropogenic environment, the formation of a positive and responsible attitude towards nature and respect for all forms of life. The students are also trained to develop and nourish a responsible, committed and solidarity stance to the natural and social environment and to critically address environmental issues. They also learn to act responsibly, including active participation in civic actions in resolving those issues. Another topic that is embedded in them is recognizing and preventing dangers related to the care of one's own health and the health of others. They also cover the objectives and contents connected to education for sustainable development in the framework of:

- ✔ ethics and cultural education (human rights, responsibility, cooperation),
- ✔ environmental education (protection of environment, transport, effects of human activity on environment),
- ✔ health education,
- ✔ popular science and education about technology (new technology, new forms of communication, new possibilities for upgrading cognitive abilities),
- ✔ consumer education.



7th – 9th grade

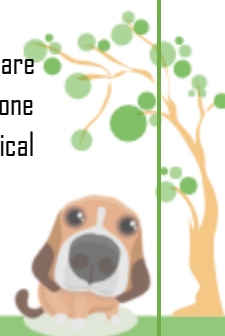
In the last three years of primary schooling the following school subject contain contents or references to bioethics: *Biology*, *Geography*, *Natural sciences*, *Technic and technology* and *Civic and citizenship education*. They last from 1 to 3 hours per week. Within the subject *Biology* there is a dedicated theme of biotechnology that includes educational contents related to how people impact the natural environment and environment in general. One of the main goals is to understand and learn about the ethical dilemmas which occur with interfering with the genetic design of human beings and other organisms (cloning, genetically modified organisms, etc.). Another part is related to the protection of (natural) environment. Other subject related to bioethics have similar goals as we have listed above, in years 4 –6, but extend in these issues in a more in-depth way. The crucial emphasis is the overall development of the personality of each individual or student and shaping their cultural awareness and expression. The goal is the cultivation of respectful and responsible attitude towards others and environments (cultural environment, natural environment, etc.).

Elective subjects

There are several elective subjects that the students can choose from in the 7th, 8th and 9th grade (in duration of 2 or 3 hours per week). In what follows the one with are at least partially related to bioethical education are briefly described. In the subjects *Environmental education I, II, III* and *Life of a human being on the Planet Earth*, there are three main themes related to bioethics. The first theme concerns the impact that human beings have on the natural environment. As part of the next theme students learn about the importance of protection of the nature as natural habitat for many different species. And the third theme is about the importance of sustaining the Planet Earth clean and how this is connected to human health. In subjects *Religions and ethics I, II, III* and *Philosophy for children* there are the following themes related to bioethical education: understanding of the importance of the nature from perspective of different religion and culture, developing of a responsible relationship based on responsibility, accountability and critical thinking/evaluation towards our environment (people and nature), in which we live in. One elective school subject is also *Genetics* (9th grade), which is related to *Biology* and include as its contents themes that allow students to critically assess the positive and negative consequences of human intervention in hereditary material, and they are aware of possible abuses and their consequences, students learn ethically positive and negative aspects of the development of genetics such as choosing gender in newborns, breeding new varieties and breeds, cloning, and in addition students learn about experimental methods of work and they acquaint themselves with moral-ethical concerns about their use. (Availability of some of these school subjects depends on the availability of teachers with specific knowledge of the topics and readiness to offer such a subject. Not all elective subjects can be chosen at all primary schools.)

Extra-curricular activities

Schools are obliged to organize several types of extra-curricular activities, e.g. activity weeks, which are organized as learning activities outside of the school premises, sports, culture and environment days, which last one day and include activities related to a dedicated theme. Thus, some parts of these activities can also include bioethical topics.



Example(s) of good practice

In primary schools in Slovenia there is no school subject specifically dedicated to bioethics. Also, there is no specific training available for teachers regarding these topics. Schools can be involved in projects and related activities dealing with ethics and some of these are closely connected to bioethical education. In what follows we are presenting some such examples as examples of good practice.

Projects ETHOS and ETHIKA

These two projects⁵⁴ were initiated by University of Ljubljana (Faculty of Theology) and included partners from other countries. Both were oriented towards teachers and other education in primary schools as well as towards students. The projects have developed a series of educational methods, tools, and materials that can be used in the classroom and that are directly relevant to ethical education.⁵⁵ Some of the topics that were included were related also to questions of bioethics (e.g. the value and protection of the environment, etc.). From the point of view of methodology, the project opted for a holistic, dialogic, and experiential approach to ethical education, which is at the same integrative in that they did not focus on specific school subject but aimed at educating and training all teachers. This is important, since as we saw earlier the topics of bioethics is present in several school subjects – for most of them teachers as part of their education receive no special training in ethics or ethical education – and in this way the projects have offered important educational opportunities to teachers.

In the Ethika project we have developed, after a comprehensive user needs analysis that included in-depth focus groups, a *Manual for teachers and educators* presenting 13 methodological approaches to ethics and values education including practical examples and useful tips. The developed manual also contains a description of basic approaches in ethics education and key insights into the moral development of children. It represents a useful tool to be used in classrooms as well as for teacher/educator training. The second output were educational materials and tools for ethics and values education. These are prepared according to the age levels of students (3-5, 5-7, 7-9, 9-11 and 11-14 years) and six key themes identified as the most relevant (justice, respect, responsibility, self-esteem, conflict resolution, ethical actions). They can be adapted given the specific aims of a teacher and the context. The third output was a Curriculum proposal for ethics and values education for teachers and educators. It is aimed both to developers and implementers of ethics and values education training as well as a self-study guide and it includes descriptions of various approaches to ethics and values education and an overview of the existing models. Three curriculum pillars that we have identified as key are Philosophy with children and critical thinking, Ethics and values education: methods and tools, and Ethical aspects and challenges of contemporary world (and how to address them in the classroom). The fourth output was the Policy paper on ethics and values education in EU that provided comprehensive support to policy- and decision-makers for the domain of education (both at the EU level as well as on the level of member states) regarding various dimensions of ethics education. As part of the project activities we have involved over 250 teachers and educators and reached over 1700 teachers and educators with open educational resources. We involved 591 of organizations (schools), institutions and networks of organizations of/for teachers, 95 ethics and value education experts, prepared 18 expert publications and articles, etc.

After the end of these projects these training opportunities are still available as part program of the Ministry of education, namely the Catalogue of programs of further education and training of professionals in education, which included courses for continuous professional development trainings for teachers and other educators⁵⁶ that are reviewed and officially acknowledged. These are training courses that teachers need to take in order to attain the promotion and but many of them also choose to enrol since it helps them greatly in their work and they can exchange experiences with colleagues from other schools.⁵⁷



7. Conclusion

Even though the quantity of early bioethical education in Croatia, Greece, Italy, and Slovenia varies, we can find many interesting practices in each to build upon them. Neither of these countries do not have a specific school subject or curriculum dedicated to bioethics, but the bioethical issues concerning living environment can be found in different school subjects, mostly those associated with biology, and in more direct manner in the obligatory subjects *Environmental Studies* (Greece) and *Environment* (Slovenia), as well as in the elective subjects *Environmental education I, II, III* and *Life of a human being on the Planet Earth* (Slovenia). As it is noted in the Italian part of this state of the art in early bioethical education overview: “often school teachers and educational programmes offer ‘bioethical education’ without realizing they are approaching bioethical issues or they are offering a bioethical point of view”. This can as well be applied to all the other countries involved in this project and it also shows that there is a certain bioethical sensibility on which our effort for introducing bioethics in early education can rest. There are also many helpful incentives for this effort in some earlier more or less direct developments of bioethical education programmes. Finally, many examples of good practice can be found in non-formal education, i.e. in workshops and similar project activities governed by NGOs. These projects also developed certain helpful concepts (as here presented EVE) for conceptualization of bioethical education.

We believe that these examples of good practice, as well as state of the art in early bioethical education in general, are only a starting point for much greater achievements. BEAGLE should be our contribution to inclusion of bioethical issues in education, both formal and non-formal. Thanks to the pluri-perspective methodology of bioethics, bioethical education can be provided both in the specific school subject and in other school subject (as well as in cross-curricular connections between subjects) related to biology, technology, literature, etc.

We believe that we are on the right side of the history, that our efforts for bioethical concern over the non-human living beings will become a part of ever growing global (bioethical) sensibility. But it should also be stressed that our concern for non-human living beings is at the same time concern for the human ones, for which the issues of ecological crisis and dehumanization should be clear evidences.

Our children will, as it is often noted, inherit this world from us. If we cannot change most of the grownups, we can make the change in our inheritors. Moreover, we must teach them that they should not be owners of this world, but responsible members of biotic community. Only if we succeed in the task of developing bioethical sensibility in children, we can give their children hope for survival... not to forget the children of all the other Earthlings.



8. Summary

This booklet provides a short instruction to the teachers involved in early education (6-14 years) on the idea, goals and condition of bioethical education in Croatia, Greece, Italy and Slovenia, as a part of the international project BEAGLE: Bioethical Education and Attitude Guidance for Living Environment (Erasmus+). Bearing in mind the urgency of ecological problems, as well as difficulties in establishing a healthier relationship with nature and non-human living beings, BEAGLE aims to contribute in inducing bioethical sensitivity, but also aims to provide specific guidance for teachers to include some bioethical issues in early education. By doing so, project BEAGLE also relies on the results of some earlier attempts, primarily related to the conceptualization of ethical education. One of these results is the concept of ethical and values education, which is specially presented here.

The booklet also provides a brief introduction to the very idea of bioethics, briefly referring to its historical development, the specific problems it deals with, and the methodology it uses to approach these problems. In parallel with the development of the concept of bioethics, the concept of bioethical education has developed as well, which, together with the various approaches and methods, is presented below. There are, of course, various strategies of bioethical education developed in the European Union, whose outline precedes an overview of the state of art on early bioethical education in countries from which project partners come.

In Croatia, the elements of bioethical education can be found in elementary school subjects "Nature and Society", "Nature" and "Biology". However, various extracurricular activities and projects of certain NGO's greatly contribute to the spread of bioethical topics beyond the narrow framework of formal early education.

In the Greek education system, topics of bioethical education are included in the subject "Environmental Studies" of the Elementary School (6-12), and also, bioethical issues appear sporadically through the Gymnasium and the Lyceum (12-18 years) curriculum such as the subjects of "Geography", "Biology", "Philosophy" or "Religion". Outside the school curriculum there are more examples of good practice, but primarily related to the biomedical aspect of bioethics.

Of course, institutional support is a key element in the representation of bioethical topics in early education. This aspect is particularly addressed in the review of early bioethical education in Italy, from the highest instances (parliament and ministry) to institutions offering various environmental education programs.

Like in Greece, there is an elementary school subject in Slovenia that is closely linked to bioethical education, here called "Environment". In addition to referring to some bioethical issues related to nature in various other school subjects, they are also largely addressed in elective subjects of "Environmental education" and "Life of a human being on the Planet Earth". Also, there are many examples of good practice in informal education, carried out within international projects.

Given the growing bioethical sensibility, it is to be expected that the representation of bioethical problems related to the environment, nature and non-human living entities will constantly increase. Bioethics can be studied as a special school subject (for example, a third grade high school programme "Ethics" in Croatia is on that tracks), but its pluri-perspective methodology opens up space for inclusion of bioethical education in other school subjects. In addition to formal education, bioethical issues should certainly be represented in informal education, which already provides many examples of good practice. The BEAGLE project attempts to contribute to each of these aspects of bioethical education through its activities.



8.1. Croatian

Ova knjižica donosi kratke upute nastavnicima uključenima u rano obrazovanje (6-14 godina) o ideji, ciljevima i stanju bioetičkog obrazovanja u Hrvatskoj, Grčkoj, Italiji i Sloveniji, kao dio međunarodnog projekta BEAGLE: Bioethical Education and Attitude Guidance for Living Environment (Erasmus+). Imajući na umu urgentnost ekoloških problema, kao i teškoće u pogledu uspostavljanja zdravijeg odnosa spram prirode i ne-ljudskih živih bića, BEAGLE pokušava dati svoj doprinos buđenju bioetičkog senzibiliteta, ali i pružiti konkretne upute nastavnicima za uključenje dijela bioetičke problematike u rano obrazovanje. Pri tome se oslanja i na rezultate nekih ranijih nastojanja, prvenstveno vezanih uz konceptualiziranje etičke edukacije. Jedan od tih rezultata je koncept etičke i vrijednosne edukacije (Ethical and Values Education), koji je ovdje posebno predstavljen.

Knjižica donosi i kratki uvod u samu ideju bioetike, kratko se osvrćući na njezin historijski razvoj, specifične probleme kojima se ona bavi, kao i metodologiju kojom im pristupa. Usporedno s razvijanjem pojma bioetike, razvijao se i koncept bioetičke edukacije, koji je zajedno s različitim pristupima i metodama prikazan u nastavku. Postoje, dakako, i različite strategije bioetičke edukacije razvijene u Europskoj uniji, čiji prikaz prethodi pregledu stanja ranog bioetičkog obrazovanja u pojedinim državama odakle dolaze parteri uključeni u projekt.

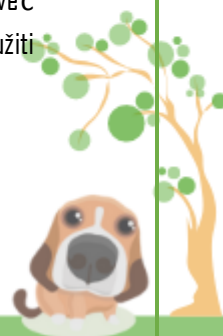
U Hrvatskoj se elementi bioetičkog obrazovanja mogu pronaći u osnovnoškolskim predmetima „Priroda i društvo“, „Priroda“ i „Biologija“. No različite izvannastavne aktivnosti i projekti određenih udruga uvelike doprinose širenju bioetičkih tema izvan uskog okvira formalnog ranog obrazovanja.

U grčkom obrazovnom sistemu bioetičko obrazovanje posebno je uključeno u predmet „Učenja o okolišu“ u osnovnoj školi (6-12), pri čemu se bioetičko obrazovanje također sporadično provlači kroz gimnazijske i srednjoškolske (12-18 godina) programe predmeta poput „Geografije“, „Filozofije“ ili „Religije“. Izvan okvira školskog programa postoji više primjera dobre prakse, no u prvom redu vezanih uz biomedicinski aspekt bioetike.

Naravno, institucionalna podrška je ključan element u pogledu zastupljenosti bioetičkih tema u ranom obrazovanju. Taj je aspekt osobito obrađen u pregledu stanja ranog bioetičkog obrazovanja u Italiji, od najviših instanci (parlamenta i ministarstva) do institucija koje nude različite programe edukacije za okolišnu problematiku.

Kao u Grčkoj, i u Sloveniji postoji osnovnoškolski predmet koji se tijesno veže uz bioetičku edukaciju, ovdje pod imenom „Okoliš“. Pored referiranja na pojedine bioetičke probleme vezane uz prirodu u raznim drugim školskim predmetima, oni su u većem opsegu obrađeni i u izbornim predmetima „Obrazovanje za okoliš“ i „Ljudski život na planetu Zemlji“. Pored toga, postoje i mnogi primjeri dobre prakse u neformalnom obrazovanju, izvođeni u okviru međunarodnih projekata.

S obzirom na rastući bioetički senzibilitet, za očekivati je da će se zastupljenost bioetičkih problema vezanih uz okoliš, prirodu i ne-ljudska živa bića stalno povećavati. Bioetika se može izučavati kao poseban školski predmet (na tom je tragu, primjerice, formiran program za treći razred srednjoškolskog predmeta „Etike“ u Hrvatskoj), no njezina pluri-perspektivna metodologija otvara prostor za uključenje bioetičkog obrazovanja i u razne druge školske predmete. Pored formalne edukacije, bioetička problematika bi svakako trebala biti zastupljena u neformalnoj edukaciji, koja već sada pruža mnoge primjere dobre prakse i za ono formalno. Projekt BEAGLE kroz svoje aktivnosti pokušava pružiti doprinos svakom od ovih vidova bioetičke edukacije.



8.2. Greek

Αυτό το φυλλάδιο παρέχει σύντομες οδηγίες προς τους εκπαιδευτικούς που συμμετέχουν στην πρωτοβάθμια εκπαίδευση (6-14 ετών) για την ιδέα, τους στόχους και την κατάσταση της βιοηθικής παιδείας στην Κροατία, την Ελλάδα, την Ιταλία και τη Σλοβενία, ως μέρος του έργου BEAGLE: Βιοηθική Εκπαίδευση και Οδηγός Συμπεριφοράς για το Έμβιο Περιβάλλον (Erasmus+).

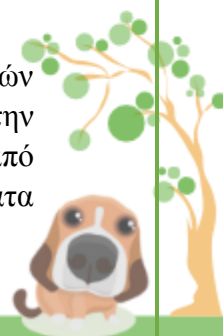
Λαμβάνοντας υπόψη τον επείγοντα χαρακτήρα των οικολογικών προβλημάτων, καθώς και δυσκολίες για τη δημιουργία μιας πιο υγιούς σχέσης με τη φύση και τα μη-ανθρώπινα όντα που ζουν, το BEAGLE έχει ως στόχο να συμβάλλει στην πρόκληση βιοηθικής ευαισθησίας, αλλά έχει επίσης ως στόχο να παρέχει συγκεκριμένες οδηγίες για εκπαιδευτικούς, ώστε να περιλαμβάνει ορισμένα ζητήματα βιοηθικής στην αρχική εκπαίδευση των μαθητών και μαθητριών. Με αυτόν τον τρόπο, το έργο BEAGLE βασίζεται στα αποτελέσματα κάποιων προηγούμενων εκπαιδευτικών προσπαθειών/προγραμμάτων, που σχετίζονται κυρίως με την αντίληψη της ηθικής εκπαίδευσης. Ένα από αυτά τα αποτελέσματα είναι η έννοια της εκπαίδευσης της σύλληψης και συνειδητοποίησης των ηθικών αξιών, η οποία παρουσιάζεται στο παρόν έργο.

Το φυλλάδιο παρέχει επίσης μια σύντομη εισαγωγή στην θεωρία της βιοηθικής, αναφερόμενη εν συντομία στην ιστορική της εξέλιξη, στα συγκεκριμένα πραγματικά προβλήματα που αντιμετωπίζει και στη μεθοδολογία που χρησιμοποιεί για την αντιμετώπιση καθημερινών προβλημάτων. Παράλληλα με την ανάπτυξη της έννοιας της βιοηθικής, αναπτύχθηκε και η έννοια της βιοηθικής εκπαίδευσης, η οποία μαζί με τις διαφορετικές προσεγγίσεις και μεθόδους παρουσιάζεται στη συνέχεια του ανά χείρας φυλλαδίου. Υπάρχουν διαφορετικές στρατηγικές βιοηθικής εκπαίδευσης που αναπτύχθηκαν στην Ευρωπαϊκή Ένωση, η συμπερίληψη των οποίων στο παρόν φυλλάδιο, προηγείται μιας επισκόπησης των τελευταίων εξελίξεων της βιοηθικής εκπαίδευσης στις χώρες από τις οποίες προέρχονται όλοι οι εταίροι του έργου Beagle.

Στην Κροατία, τα στοιχεία της βιοηθικής εκπαίδευσης μπορούν να βρεθούν στα δημοτικά σχολικά μαθήματα "Φύση και Κοινωνία", "Φύση" και "Βιολογία". Ωστόσο, διάφορες εξωσχολικές δραστηριότητες και δράσεις ορισμένων ΜΚΟ συμβάλλουν σε μεγάλο βαθμό στη διάδοση των βιοηθικών θεμάτων, πέρα από το στενό πλαίσιο της επίσημης πρωτοβάθμιας εκπαίδευσης.

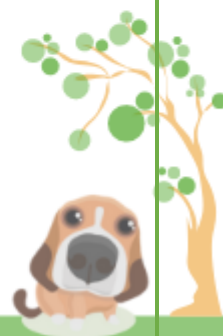
Στο ελληνικό εκπαιδευτικό σύστημα, τα θέματα της βιοηθικής παιδείας που περιλαμβάνονται στο μάθημα «Μελέτη Περιβάλλοντος» του Δημοτικού Σχολείου (6-12), καθώς επίσης βιοηθικά ζητήματα εμφανίζονται σποραδικά μέσα στο Γυμνάσιο και το Λύκειο (12-18 ετών), εντός του προγράμματος σπουδών, σε θεματικές μαθημάτων όπως: "Γεωγραφία", "Βιολογία", "Φιλοσοφία" ή "Θρησκευσιολογία/Θρησκευτικά". Εκτός του σχολικού προγράμματος σπουδών υπάρχουν περισσότερα παραδείγματα ορθής πρακτικής, αλλά σχετίζονται κυρίως με τη βιοϊατρική πτυχή της βιοηθικής.

Η θεσμική υποστήριξη αποτελεί βασικό στοιχείο στην εκπροσώπηση των βιοηθικών θεμάτων στην πρωτοβάθμια εκπαίδευση. Αυτή η πτυχή παρουσιάζεται ιδιαίτερα στην αναθεώρηση της πρωτοβάθμιας βιοηθικής εκπαίδευσης στην Ιταλία, με θεσμική στήριξη (από το Κοινοβούλιο και το Υπουργείο Παιδείας) σε ιδρύματα που προσφέρουν προγράμματα περιβαλλοντικής εκπαίδευσης.



Όπως και στην Ελλάδα, έτσι και στη Σλοβενία υπάρχει εκπαιδευτική θεματολογία στο δημοτικό σχολείο που συνδέεται στενά με τη βιοηθική παιδεία: το "Περιβάλλον". Εκτός από αναφορές σε ορισμένα βιοηθικά θέματα που σχετίζονται με τη φύση σε διάφορα άλλα σχολικά μαθήματα, αυτά εξετάζονται επίσης σε μεγάλο βαθμό και σε μαθήματα επιλογής "Περιβαλλοντική εκπαίδευση" και "Η ζωή ενός ανθρώπου στον πλανήτη Γη". Επίσης, υπάρχουν πολλά παραδείγματα ορθής πρακτικής στην άτυπη εκπαίδευση, που διεξάγονται στο πλαίσιο διεθνών προγραμμάτων.

Δεδομένης της αυξανόμενης βιοηθικής ευαισθησίας, αναμένεται ότι η αντιπροσώπευση των βιοηθικών προβλημάτων που σχετίζονται με το περιβάλλον, τη φύση και τα μη ανθρώπινα όντα θα αυξάνεται συνεχώς. Η Βιοηθική μπορεί να μελετηθεί ως ειδικό μάθημα (για παράδειγμα, στην τρίτη τάξη στο πρόγραμμα γυμνασίου στην Κροατία, η διδασκαλία μαθήματος με τίτλο «Ηθική» προετοιμάζεται να ενταχθεί στο πρόγραμμα σπουδών), αλλά η μεθοδολογία -με πολυεθνική προοπτική- ανοίγει χώρο για την ένταξη της βιοηθικής παιδείας και σε άλλα μαθήματα του σχολείου. Εκτός από την επίσημη εκπαίδευση, τα θέματα βιοηθικής θα πρέπει ασφαλώς να υπάρχουν στην άτυπη εκπαίδευση, η οποία ήδη παρέχει πολλά παραδείγματα ορθών πρακτικών. Στόχος του έργου BEAGLE είναι να συμβάλει σε κάθε μία από αυτές τις πτυχές της βιοηθικής εκπαίδευσης μέσω των δραστηριοτήτων του.



8.3. Italian

Il presente documento si rivolge agli insegnanti della scuola primaria e secondaria (6-14 anni) e intende offrire una breve introduzione su obiettivi, modelli e prassi esistenti nel campo dell'educazione all'etica ambientale in Croazia, Grecia, Italia e Slovenia. Il documento è stato preparato nell'ambito del progetto "BEAGLE: Bioethical Education and Attitude Guidance for Living Environment", svolto nel quadro del programma comunitario Erasmus+. Partendo dall'estrema attualità dei problemi ecologici, nonché dalla difficoltà nello stabilire un sano rapporto dell'uomo con la natura e tutti gli altri esseri viventi che la popolano, BEAGLE intende contribuire a sensibilizzare gli studenti più giovani nei confronti dei temi della bioetica ambientale, ed intende inoltre fornire una guida agli insegnanti della scuola primaria e secondaria per includere nei propri corsi argomenti di bioetica ambientale. Il Progetto BEAGLE si basa su risultati di ricerche precedenti riguardanti l'educazione all'etica in generale. Di tali risultati, nella presente pubblicazione viene ripreso soprattutto il concetto di educazione all'etica e ai valori.

Il presente documento fornisce inoltre un'introduzione al concetto di bioetica, accennando brevemente al suo sviluppo storico, ai problemi specifici che affronta e alle metodologie utilizzate per trattare questi problemi. Parallelamente allo svilupparsi del concetto di bioetica (e di bioetica ambientale), si è sviluppato anche il concetto di educazione all'etica (e all'etica ambientale), che viene qui presentato insieme ad alcune metodologie e punti di vista. I Paesi dell'Unione Europea adottano approcci differenti all'insegnamento dell'etica ambientale, che vengono qui brevemente presentati prima di fornire una panoramica più dettagliata dello stato dell'arte nei Paesi in cui operano i Partner del Progetto.

In Croazia, nelle scuole elementari si rinviengono elementi di educazione all'etica ambientale nelle materie "Natura e società", "Natura" e "Biologia". Inoltre molte attività extrascolastiche e progetti di alcune ONG contribuiscono notevolmente alla diffusione di argomenti di bioetica ambientale, al di là della ristretta cornice dell'istruzione formale della scuola primaria e secondaria.

Nel sistema di istruzione greco, nella scuola elementare (6-12 anni) elementi di educazione all'etica ambientale si ritrovano nella materia "Conoscere l'ambiente" e in alcune materie della scuola secondaria (12-18 anni), come "Geografia", "Biologia", "Filosofia" o "Religione". Al di fuori dei programmi scolastici vi sono molti esempi di buone pratiche, che sono però prevalentemente legati agli aspetti biomedici della bioetica.

L'intervento delle Istituzioni pubbliche è di certo imprescindibile per introdurre nei curriculum scolastici della scuola primaria e secondaria gli argomenti di bioetica ambientale. Per quanto riguarda l'Italia, il presente documento fornisce una descrizione dello stato dell'arte dell'educazione all'etica ambientale sotto il profilo normativo, partendo dal ruolo delle Istituzioni pubbliche (i provvedimenti assunti dal Parlamento e dai Ministeri dell'Educazione e dell'Ambiente), fino alle singole istituzioni scolastiche che offrono vari programmi di educazione ambientale.

Analogamente alla Grecia, anche in Slovenia c'è una materia scolastica della scuola primaria strettamente legata all'educazione all'etica ambientale, denominata "Ambiente". Oltre alle principali questioni di etica ambientale trattate in diverse materie scolastiche, questi temi sono al centro di materie come "Educazione ambientale" e "La vita umana sul pianeta Terra". Vi sono inoltre molti esempi di buone pratiche nell'istruzione informale, spesso realizzati nell'ambito di progetti transnazionali.

Data la crescente sensibilità nei confronti dei temi di etica ambientale, ci si aspetta che la discussione sui problemi bioetici legati all'ambiente, alla natura ed agli esseri viventi aumenti costantemente in futuro.

E se da un lato la bioetica ambientale può essere studiata come materia a sé stante (per esempio la Croazia sta progettando la materia "Etica" da inserire nei programmi per le scuole superiori) dall'altro, per la loro natura



multidimensionale, gli argomenti di bioetica ambientale si prestano ad essere trattati in molte materie scolastiche. Oltre all'istruzione formale, le questioni di bioetica ambientale possono essere affrontate anche in contesti di istruzione informale, da cui si possono ricavare molti esempi di buone pratiche. Il progetto BEAGLE si propone di fornire il proprio contributo a ciascuno di questi aspetti dell'educazione alla bioetica ambientale.



8.4. Slovenian

Knjižica ponuja kratka vodila o bioetičnem poučevanju za učitelje, ki so vključeni v zgodnje izobraževanje otrok (starost od 6 do 14 let). Osnovana je na ideji bioetike, njenih ciljih in stanju bioetične vzgoje na Hrvaškem, v Grčiji, Italiji in Sloveniji ter je nastala kot izdelek mednarodnega projekta BEAGLE: Bioetična vzgoja in naš odnos do živega okolja (eng. Bioethical Education and Attitude Guidance for Living Environment) (Erasmus+). Ob upoštevanju nujnosti odzivov na ekološke probleme pa tudi težav pri vzpostavljanju bolj zdravega odnosa do narave in nečloveških živih bitij, si projekt BEAGLE prizadeva prispevati k spodbujanju bioetične občutljivosti, prav tako pa želi zagotoviti učiteljem posebne smernice za vključitev nekaterih bioetičnih vprašanj v zgodnje izobraževanje. S tem se projekt BEAGLE opira tudi na rezultate nekaterih zgodnejših poskusov na tem področju, predvsem v zvezi s pojmovanjem in zasnovo etične vzgoje. Eden izmed rezultatov je zasnova izobraževanja o etiki in vrednotah, ki je posebej predstavljena tukaj.

V knjižici je predstavljena tudi kratka zgodovina bioetike, njen razvoj, specifični problemi, s katerimi se ukvarja in metodologija, ki jo uporablja za pristop k tem problemom. Vzoredno z razvojem pojma bioetike se je razvila tudi zasnova bioetične vzgoje, ki je skupaj z različnimi pristopi in metodami predstavljena v nadaljevanju. V Evropski uniji so seveda razvili različni modeli bioetične vzgoje, katerih povzetek sledi v nadaljevanju. Ta pregled temelji na obstoječem stanju bioetične vzgoje v državah partnerjev projekta BEAGLE.

Na Hrvaškem je gradnike bioetične vzgoje mogoče zaslediti v šolskih predmetih kot so "Narava in družba", "Narava" in "Biologija". Vendar pa tudi številne izvenšolske dejavnosti in projekti nekaterih nevladnih organizacij močno prispevajo k širjenju bioetičnih tem tudi onkraj okvira formalnega zgodnjega izobraževanja.

V grškem izobraževalnem sistemu so teme bioetične vzgoje v osnovni šoli vključene v predmet "Okoljske študije", bioetična vprašanja pa se pojavljajo tudi na kasnejših stopnjah, npr. pri predmetih "Geografija", "Biologija", "Filozofija" ali "Religija". Zunaj šolskih učnih načrtov je več primerov dobre prakse, ki pa so prvenstveno povezani z biomedicinskim vidikom bioetike.

Institucionalna podpora je ključni element pri predstavljanju bioetičnih tem v zgodnjem izobraževanju. Ta vidik je posebej obravnavan v okviru pregleda zgodnje bioetične vzgoje v Italiji, od najvišjih ravni (parlament in ministrstvo) do ustanov, ki ponujajo različne programe okoljske vzgoje.

Tako kot v Grčiji obstaja v Sloveniji osnovnošolski predmet, ki je tesno povezan z bioetično vzgojo in se imenuje "Okolje". Poleg nekaterih bioetičnih vprašanj, ki se nanašajo na naravo v različnih drugih šolskih predmetih, so ta vprašanja v veliki meri obravnavana tudi v izbirnih predmetih "Okoljska vzgoja" in "Življenje človeka na planetu Zemlja". Prav tako obstaja veliko primerov dobrih praks v neformalnem izobraževanju, ki se izvajajo v okviru mednarodnih projektov.

Glede na naraščajočo bioetično občutljivost je pričakovati, da se bo predstavljanje bioetičnih problemov, povezanih z okoljem, naravo in nečloveškimi bitji, nenehno povečevalo. Bioetiko lahko preučujemo in poučujemo kot poseben šolski predmet (na primer na Hrvaškem je v tretjem letniku srednješolskega programa predmet "Etika"), njegova pluriperspektivna metodologija odpira prostor za vključevanje bioetične vzgoje v druge šolske predmete. Poleg formalnega izobraževanja morajo biti bioetična vprašanja vsekakor zastopana tudi v neformalnem izobraževanju, ki že ponuja številne primere dobrih praks. Projekt BEAGLE poskuša s svojimi dejavnostmi prispevati k vsakemu od teh vidikov bioetične vzgoje.



- ¹ There are several different terms that are used for this and similar aspects of educational process including ethics education, moral education, values education, education for values, character education, etc.
- ² Strahovnik, Vojko (forthcoming): "Ethical Education and Moral Theory", *Metodički ogledi*.
- ³ Peters, Richard Stanley (1970): *Ethics and Education*, 2nd ed. London: G. Allen and Unwin.
- ⁴ Strahovnik, Vojko (2016): "Ethics and Values Education", in: Peters, Michael A. (ed.), *Encyclopedia of Educational Philosophy and Theory*. Continuously updated ed. Singapore: Springer.

Ainsworth, Stuart; Johnson, Andrew (2000). "The TTA Consultation Documents on ITT: What, No Values?", in: Gardner, Roy, Cairns, Jo; Lawton, Denis (eds.), *Education for Values: Morals, Ethics and Citizenship in Contemporary Teaching*. London: Kogan Page: 158-185.
- ⁵ Dewey, John (1980 [1929]): *The Quest for Certainty*. New York: Perigee Books, p. 262.
- ⁶ Nord, Warren A.; Haynes, Charles C. (1998): *Taking Religion Seriously Across the Curriculum*. Alexandria: ASCD.
- ⁷ Strahovnik, "Ethics and Values Education".
- ⁸ Simon, Sidney B.; Howe, Leland; Kirschenbaum, Howard (1972): *Values clarification: A handbook of practical strategies for teachers and students*. New York: Hart Publishing.
- ⁹ Noddings, Nel (1992): *The Challenge to Care in Schools*. New York: Teachers College Press.

Noddings, Nel (1999): "Caring and Competence", in: Griffen, Gary A. (ed.), *The Education of Teachers*. Chicago: National Society of Education: 205-220.

Ryan, Kevin; Bohlin, Karen (1999): *Building Character in Schools: Practical Ways to Bring Moral Instruction to Life*. San Francisco: Jossey-Bass.
- ¹⁰ Lipman, Matthew (2003): *Thinking in Education*. Cambridge: Cambridge University Press, p. 271.
- ¹¹ Lickona, Thomas (1991): *Educating for Character: How Our Schools Can Teach Respect and Responsibility*. New York: Bantam Books.

Lickona, Thomas (1993): "The return of character education", *Educational Leadership*, 51(3): 6-11.
- ¹² Furco, Andrew (2011): "Service-Learning: A Balanced Approach to Experiential Education", *The International Journal for Global and Development Education Research* (0): 71-76.

Knapp, Timothy D. & Fisher, Bradley J. (2010) "The Effectiveness of Service-Learning: It's not always what you think", *Journal of Experiential Education*, 33(3): 208-224.
- ¹³ Cam, Phillip (2014): Philosophy for Children, *Values Education and the Inquiring Society. Educational Philosophy and Theory*, 46(11): 1203-1211.
- ¹⁴ Kirschenbaum, Howard (1992): "A Comprehensive Model for Values Education and Moral Education", *The Phi Delta Kappan*, 73(10): 771-776.



Silcock, Peter; Duncan, Diane (2001): "Acquisition and Values Education: Some Proposals", *British Journal of Educational Studies*, 49(3): 242–259.

- ¹⁵ We are not making any references through the text in this chapter. The main reason is that here is presented only a common knowledge (at least in integrative-bioethical circles), with a few of our original insights. However, for deeper understanding of the concept of integrative bioethics (on which this chapter is based), books (collections of texts) that could be useful are following:

Čović, Ante; Hoffmann, Thomas Sören (eds., 2007): *Integrative Bioethik / Integrative Bioethics*. Sankt Augustin: Academia Verlag.

Čović, Ante (ed., 2011): *Integrative Bioethik und Pluriperspektivismus / Integrative Bioethics and Pluriperspectivism*. Sankt Augustin: Academia Verlag.

Muzur, Amir; Sass, Hans-Martin (eds., 2012): *Fritz Jahr and the Foundations of Global Bioethics. The Future of Integrative Bioethics*. Münster et al.: LIT Verlag.

These books are also recommended in the following paper (which is by itself very useful): Juric, Hrvoje (2015): „From the Notion of Life to an Ethics of Life“, *Synthesis Philosophica*, 30(1): 33–46, p. 35.

- ¹⁶ Ten Have, Henk A.M.J. (2014): "Bioethics Education", in: Ten Have, Hank A.M.J.; Gordijn, Bert (eds.): *Handbook of Global Bioethics*. Dordrech: Springer.

- ¹⁷ Persad, Govind C.; Elder, Linden; Sedig, Laura; Flores, Leonardo; Emanuel, Ezekiel J. (2008): "The current state of medical school education in bioethics, health law, and health economics", *The Journal of Law, Medicine & Ethics*, 36(1): 89–94.

- ¹⁸ Ten Have, "Bioethics Education".

- ¹⁹ Ibid.

- ²⁰ Chiarelli, Brunetto (1992): "Man, Nature and Ethics: Global Bioethics", *Global Bioethics*, 5(1): 13–20.

- ²¹ Manual for Teachers and Educators, created in Ethika project you can find here: http://www.ethics-education.eu/resources/ManualTeachers_EN.pdf. (accessed March 19, 2019)

- ²² DuBois, James M.; Burkemper, Jill (2002): "Ethics education in U.S. medical schools: A study of syllabi", *Academic Medicine*, 77(5): 432–437.

- ²³ Fox, Ellen; Arnold, Robert M.; Brody, Baruch (1995). "Medical ethics education: Past, present, and future", *Academic Medicine*, 70(9): 761–769.

- ²⁴ Urker, Okan; Yildiz, Murat; Cobanoglu, Nesrin (2012): "The role of bioethics on sustainability of environmental education", *Procedia – Social and Behavioral Science*, 47: 1194–1198.

- ²⁵ Spiropoulou, Dimitra; Roussos, George; Voutirakis, John (2005): "The role of environmental education in compulsory education: The case of mathematics textbooks in Greece", *International Education Journal*, 6(3): 400–406.

- ²⁶ Ibid.

- ²⁷ Michaelides, P. G. (2005): "Environmental Education in the Greek Schools", in: *Topics and Issues in Education*, volume in: Kassotakis, M.; Flouris G. (eds.), *Honor of Byron G. Massialas*. Athens: Atrapos Publishers: 485–508.



²⁸ HRNBC = "Educational Activities for Schools – Bioethics go to school", in the *Hellenic Republic National Bioethics Commission* at <http://www.bioethics.gr/index.php/enimerosi>. (accessed March 19, 2019)

²⁹ For the booklet open source of the *Hellenic Republic National Bioethics Commission*: https://www.biologyinschool.gr/wp-content/uploads/2017/11/Booklet_for_schools_final.pdf. (accessed March 19, 2019)

In this chapter ("Greece") we also considered OECD = Diagram for Education System in Greece, in *The Organisation for Economic Co-operation and Development (OECD)* at <http://gpseducation.oecd.org/CountryProfile?primaryCountry=GRC>. (accessed March 19, 2019)

³⁰ Stanford Encyclopedia of Philosophy, *Environmental Ethics*, First published Mon Jun 3, 2002; substantive revision Tue Jul 21, 2015. <https://plato.stanford.edu/entries/ethics-environmental/>. (accessed March 19, 2019)

See also the definitions by:

De Martino, Giulio (2016): "Bioetica ed ecologia", *La Rivista del Centro Studi Città della Scienza*, March 31st 2016, <http://www.cittadellascienza.it/centrostudi/2016/03/bioetica-ecologia/>. (accessed March 19, 2019)

Comitato Nazionale per la Bioetica, *Bioetica e Ambiente*, Presidenza del Consiglio dei Ministri – Dipartimento per l'Informazione e l'Editoria, September 21st 1995, pp. 7, 9. http://bioetica.governo.it/media/1907/p21_1995_bioetica-e-ambiente_it.pdf. (accessed March 19, 2019)

See also: Andreozzi, Matteo (2015): *Le sfide dell'etica ambientale. Possibilità e validità delle teorie morali non-antropocentriche*. Milano: Edizioni Universitarie di Lettere Economia Diritto.

³¹ Pessina, Adriano (1999): *Bioetica. L'uomo sperimentale*. Milano: Bruno Mondadori, pp. 23–34.

Reich, Warren T. (ed.; 1978): *Encyclopedia of Bioethics*, vol. 4. New York: The Free Press, New York, 1978, p. XIX.

³² As to a research on the state of the art on bioethical education (in its wider sense, not restricted to environmental bioethics) in the Emilia Romagna Region at the beginning of the 2000s, see: Porcarelli, Andrea (ed.; 2004), *Bioetica e convivenza civile. I risultati di una ricerca*, Bologna: I.R.R.E. – R.E.

³³ Ibid., p. II.

³⁴ Comitato Nazionale per la Bioetica, *Bioetica e Ambiente*.

³⁵ Ibid., p. 5.

³⁶ Ibid., p. 49.

³⁷ Ministero dell'Istruzione, dell'Università e della Ricerca, Comitato Nazionale di Bioetica, *Protocollo d'intesa tra la Presidenza del Consiglio dei Ministri – Comitato Nazionale per la Bioetica e il Ministero dell'Istruzione, dell'Università e della Ricerca*, 15 luglio 2010. http://www.marche.istruzione.it/news/2010/082010/allegati/Bioetica-MIUR_protocollo.pdf. (accessed March 19, 2019)

A description of the main differences between the 1999 Protocol and the 2010 Protocol is contained in the document: "*Bioetica e formazione nel mondo della scuola*", by the Presidency of the Council of Ministries and the National Committee for Bioethics, pp. 18–19. See below.



³⁸ Ministero dell'Istruzione, dell'Università e della Ricerca, Comitato Nazionale di Bioetica, *Protocollo d'intesa tra la Presidenza del Consiglio dei Ministri – Comitato Nazionale per la Bioetica e il Ministero dell'Istruzione, dell'Università e della Ricerca*, 15 luglio 2010., art. 1.

³⁹ Ibid., art. 2, lett. c).

"*Citizenship and Constitution*": see below.

⁴⁰ Presidenza del Consiglio dei Ministri – Comitato Nazionale di Bioetica, *Bioetica e formazione nel mondo della scuola*, 16 luglio 2010. http://bioetica.governo.it/media/1848/p92_2010_bioetica_formazione_della_scuola_it.pdf. (accessed March 19, 2019)

⁴¹ Reich, Warren T. (ed., 1995): *Encyclopedia of Bioethics*, 2nd ed, vol. 1. New York: Macmillan Library Reference USA, p. XXI.

⁴² Presidenza del Consiglio dei Ministri – Comitato Nazionale di Bioetica, *Bioetica e formazione nel mondo della scuola*, p. 21.

⁴³ Legge 30 ottobre 2008, n. 169 "Conversione in legge, con modificazioni, del decreto-legge 1^o settembre 2008, n. 137, recante disposizioni urgenti in materia di istruzione e università", Gazzetta Ufficiale n. 256 del 31 ottobre 2008, art. 1. <http://www.miur.gov.it/documents/20182/21207/Legge+169+del+30+ottobre+2008/47ca8361-351c-46a8-b581-7496453a8651?version=1.0>. See also a comment by MIUR at: <http://www.miur.gov.it/cittadinanza-e-costituzione>. (both accessed March 19, 2019)

⁴⁴ MIUR, *Documento di indirizzo per la sperimentazione di "Cittadinanza e Costituzione"*, 4 marzo 2009. <http://www.liceofranchetti.it/assetto/indirizzo.pdf>. (accessed March 19, 2019)

Ibid., p. 18.

⁴⁵ MIUR, *Circolare Ministeriale n. 86*, 27 ottobre 2010, par. 2-2b, p. 4. http://www.arpa.veneto.it/servizi-ambientali/educazione-per-la-sostenibilita/file-e-allegati/documenti/nazionali/cm86_10.pdf/view.

(accessed March 19, 2019)

<https://www.orizzontescuola.it/circolare-ministeriale-n-86-del-27-ottobre-2010/>. (accessed March 19, 2019)

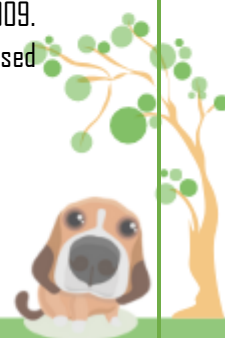
In 2014, the Board of Education of the Lombardia Region, in Italy, shows that in Lombardia's schools one of the most popular issues within the subject "*Citizenship and Constitution*" is environmental education (Ufficio Scolastico per la Lombardia, *Linee di indirizzo dell'educazione ambientale e della sostenibilità. Per una cittadinanza ambientale*, Milano, gennaio 2014, p. 5).

⁴⁶ MIUR – MATM, *Carta di intenti in materia di Scuola, Ambiente e Legalità*, 29 luglio 2009, art. 1.

⁴⁷ Ministero dell'Istruzione, dell'Università e della Ricerca, Ministero dell'Ambiente e della Tutela del Territorio e del Mare, *Linee guida per l'educazione ambientale e allo sviluppo sostenibile*, 9 dicembre 2009. http://www.arpa.fvg.it/export/sites/default/tema/LaREA/allegati/MIUR-MinAmb_LineeGuidaEASS.pdf. (accessed March 19, 2019)

⁴⁸ Ibid., p. 2

⁴⁹ Ibid., pp. 6-7.



- ⁵⁰ Ministero dell'Ambiente, *Linee guida educazione ambientale*, 2014. http://www.minambiente.it/sites/default/files/archivio/allegati/LINEE_GUIDA.pdf. (accessed March 19, 2019)
- ⁵¹ Searching the web with the Italian keywords "*bioetica* or *etica+ambiente+scuol*" (= "*bioethics* or *ethics+environment+school*"), or similar keywords, we have found no results matching with our search criteria. Instead, a search with the keywords "*educazione ambientale* or *sviluppo sostenibile+scuol*" (= "*environmental education* or *sustainable development+school*"), or similar keywords, has found hundreds of results.
- ⁵² Ufficio Scolastico per la Lombardia, *Linee di indirizzo dell'educazione ambientale e della sostenibilità*, pp. 4–5.
- ⁵³ Ibid., pp. 39–41.
- ⁵⁴ Ethos – Ethical Education for a Sustainable and Dialogic Future (2012–2014); ETHIKA – Ethics and values education in schools and kindergartens (2014–2017).
- ⁵⁵ These learning materials are available here: <http://www.ethics-education.eu/tools/index.htm>; while other educational tools and resources here: <http://www.ethics-education.eu/resources/resource01.htm>. (both accessed March 19, 2019)
- ⁵⁶ You can search the catalogue for trainings in the field of ethics, values, philosophy for children etc. here: <https://paka3.mss.edus.si/katis/uvodna.aspx>. (accessed March 19, 2019)
- ⁵⁷ Further information about these two projects are available here: <http://www.ethics-education.eu/home/index.htm>. (accessed March 19, 2019)

