HOW TO DEVELOP NEW METHODS OF TEACHING IN BULGARIA IN ORDER TO IMPROVE ECOLOGICAL CONSCIOUSNESS IN PUPILS AND TEENAGERS

Iva Hincheva

Department of Philosophy, Philosophy taught in English,

Sofia University "Sv. Kliment Ohridsky", 15 Tsar Osvoboditel Blvd, 1504 Sofia, Bulgaria

Abstract

The younger generations are an important factor for the preservation of the Earth. Unfortunately, traditional education does not provide a sufficient base for the development of ecological thinking and most of the young people leave school with nothing more than a consciousness of consumers. Only a change in the system could help to improve the situation and this means replacing some of the traditional methods with modern ones, training qualified teachers and responsive headmasters and thus working for motivated students who become interested in the ecological problems and feel part of them. Of course, financial support is needed, but contemporary technologies allow the implementation of innovations at a lower price. What is important is that those responsible for our children's education realise that measures should be taken and show willingness in doing so.

Key words: *ecology, pupils, students, traditional teaching, modern methods, passive recipients, active participation*

1. INTRODUCTION

As a Philosophy doctoral student, I ventured to take on the tough but interesting and important issue of Ecology for a topic of my dissertation. "Ecology and animals' rights – moral problems" sounds impressive and challenging, but after digging deeply into the subject, after researching historical facts, controversial theories and a lot of philosophizing, I came to the point to realize that mere words are not enough and the only possible contribution remains in the domain of physical action and practice. In my dissertation I have outlined different solutions, some of them (like ecoterrorism) quite shocking, which I am not going to discuss here, but since I believe that a lot more can be achieved in a peaceful manner, my reflections had led me to conclude that Nelson Mandela's words "Education is the most powerful weapon which you can use to change the world" point out the most effective way to improve a certain situation.

1.1. Ecology not as a discipline but as a part of everybody's life

Before proceeding to what I would like to emphasize with this subtitle, I would like to quote some common definitions when it comes to intertwining ecology with humans' lives, or with sociology (as this is the practice spread in the scientific circles). First of all, ecology is mentioned as important because of anthropocentric reasons, the main of which is called "sustainability"(or the ability to live by means of methods that do not completely use up or destroy natural resources). Second, closely related to sustainability stands "Resilience" or "the ability to experience change and disturbance without catastrophic qualitative change in the basic functional organization: it is a measure of the system's integrity"[1]. These notions were set in the late 60's and became extremely popular during the 70's and up to now, but as far as I'm concerned the theories that produced them suffer from one great drawback: they are restricted to the domain of philosophizing which is alienated from the average person and they provide no ground for the average person to get more concerned with the ecological issues, let alone to realize that we all bear responsibility for the consequences of our treatment and attitude. The saddest of all is that the above theories do not succeed in teching the average person to

[1] Holling, C.S.,1973, "Resilience and stability in ecological systems," *Annual Review of Ecology and Systematics*, vol.4, pp.1–24.

love and to care for the planet; these same theories are too preoccupied with proving how the application of complex systems theory to explain integrated social-ecological systems is problematic. Theoreticians outline that "While the conservation of ecosystem services is important, in human terms it means nothing if development for the poorest is not sustained."[2] Still, Neil Harrison, from whom the just quoted phrase is, maintains that education shouldn't be overlooked[3], as it has been done up to the present moment.

Coming to my point, what I believe is beneficial is to emphasize the element of education, and do it in such a way, that the average person becomes not only interested, but also aware of and caring for environmental problems. Of course, poverty and inequality are social problems that may play an undermining role in the process of education, but they should in no way be used as an excuse for ignorance and lack of any action.

1.2. Aim of the report

The aim of the report is to show:

1. Children and young people are valuable source of preservation of the ecological balance on the Earth
2. Traditional Bulgarian teaching in certain disciplines that include knowledge of the planet and its processes is too retrograde, because it favours theory to practice
3. Some suggestions that could develop in children interest and love for nature and thus turn them into the future generation that is ready for a more environmentally-friendly life not just in theory, but in practice.

In short, I intend to show why the educational system in Bulgaria is unable to educate the younger generations (who hold the future of this planet) adequately when it comes to nature and its preservation and to suggest ways of improving the situation. As it turns out, many countries face similar problems, so my research can be useful in a larger scope that goes beyond our national borders. I have cited practices that are internationally recognized as beneficial because they have proved their impact on the students and their interaction with the ecological issues.

2. COMMENTS ON SOME PERSONAL OBSERVATIONS, IMPRESSIONS AND EXPERIENCE

I would like to start by describing some of my own experience and in the section for my school years I have added some children's comments and thus revealed why environmental culture in young people is at such low level.

2.1. As a pupil and a student

Pupils in Bulgaria get acquainted for the first time with nature and environment in the second grade (nowadays they study "Man and nature" from the 2nd to the 5th grade), then the greatest amount is taken on by Geography and partly by Biology. Unfortunately hardly any environmental consciousness is developed in them all those years, and after leaving high school they come into the world as people for whom nature is of the smallest concern.

I personally remember Geography as an extremely boring sequence of information which I found very difficult to memorize, let alone to reproduce, and the rare times I scored a location correctly on the map, it brought hardly any satisfaction to me. Later on, I found that I have no interest in economics (as in Bulgaria Geography is mostly oriented towards this domain and not the ecological one) and thus Geography lost any significance for me. Almost the same was the situation with Biology and although these two subjects deal with information that concerns basic notions about the planet and life in general, they didn't touch my heart and it wasn't until my early twenties (when I had already

[2] Harrison, Neil E., 2000, *Constructing Sustainable Development*. Albany, NY: SUNY Press,
[3] Ibid.

graduated in philology and had no intention to study the above mentioned sciences) that I discovered how important is the ecological balance for all of us and how we humans destroy the Earth in a most ruthless manner.

Unfortunately, there are no official reports or surveys on pupils' and students' opinion concerning the subjects Geography and Biology in Bulgaria, but despite the fact that many choose Geography as a subject with which they enter different universities, the percentage of those who did it because of interest towards ecology is shoestring. However, I used a survey among English kids and some of their comments correspond to my own experience and my memories of the overall attitude of my classmates, which makes me infer that there are some general problems that undermine the process of teaching. One 11-year-old boy said that "the teacher talks for the majority of the lesson and then gives us a minimal amount of time to do our work"[4] and a girl of the same age claimed that "it is extremely difficult to concentrate in these lessons because they are very tedious"[5] and "There is little variation in the teaching method"[6]. Another kid said "I have no interest whatsoever in Geography. It doesn't help me in the qualifications I need for when I'm older."[7] The most worrying here is that not only do kids believe that this subject is unpleasant, but some of the them believe it is useless, as far as they do not intend to do anything involved in it.

All these facts talk about the impotence of the educational system, the ignorance of the teachers, as well as their lack of motivation, and as a result we have a generation that fails to identify the importance of the environmental issues, as the teaching process has a priori deprived this same generation of the possibility to get acquainted, let alone get fond of the natural environment, its species and its unique characteristics around the different parts of the world.

2.2. As a teacher

I have been a language teacher for almost ten years, and although my teaching experience may at first seem quite irrelevant to the topic that I discuss here, this makes me even more eager to prove that it actually led me to some very important conclusions that I apply regularly at my work and that many of my colleagues (not only language teachers) find valid and useful, especially in contemporary education which strives not just to supply information but to help those who are being educated to use it in a most practical and efficient way.

Teaching and studying a language has two main aspects: a theoretical one (like grammar and rules of its usage) and a practical one (the ability of the teacher to make the students use the language – i.e. to talk). Modern methods suggest (and even oblige) the language teacher to give emphasis on the second aspect, because most of the students need a certain language not because of its grammar, but because of the necessity to communicate. From the above said I have made the following inference: the two main aspects of teaching and studying a language are valid for any subject that is studied because all subjects contain a theoretical and a practical side. Unfortunately, in Bulgarian schools the emphasis is put mainly (very often only) on the theoretical part and thus the students are deprived of the pleasure to really "get into" what they study, as they are often too bored just to memorize rules and endless flow of information. This is because in Bulgaria teaching is still mainly traditional and this is the reason why subjects like Geography and Biology fail to attract children's attention or turn into the inspiration to make them lead a better life.

3. TRADITIONAL TEACHING IN BULGARIA (AND ELSEWHERE)

I decided to include in brackets the word "elsewhere", because my broader investigations led me to reports describing similar situations in other schools around the world and that is why I shall give

[4] http://www.uea.ac.uk/~m242/nasc/cross/cman/geogworst.htm
[5] Ibid
[6] ibid
[7] ibid

some details on that too. However, the suggestions I make in the next chapter concern the schooling in Bulgaria, as I believe that here I could contribute the most.

I also decided to include some widespread definitions of traditional teaching, as they very well reveal its true face. The American educator Joseph Novak says: "The traditional approach to teaching, as ancient as formal teaching itself, involves the directed flow of information from teacher as sage to student as receptacle. Traditional teaching is concerned with the teacher being the controller of the learning environment. They regard students as having "knowledge holes" that need to be filled with information. In short, the traditional teacher views that it is the teacher that causes learning to occur. However, one basic approach to fight traditionalism is making students "understand", because the students who are learning for understanding will do much better when they are asked to transfer their knowledge to novel problem-solving situations "[8].

Traditional teaching is deeply teacher-centered. The reason for this approach is explained by the statement of Assist. Prof. Dr. Abdullah Kuzu, who asserts that it is based on the "traditional view of education, where teachers serve as the source of knowledge while learners serve as passive receivers"[9]. Jim Scrivener, who claims that "traditional teaching [is imagined to work as] 'jug and mug' – the knowledge being poured from one receptacle into an empty one." This widespread attitude is based on a precondition that "being in a class in the presence of a teacher and 'listening attentively' is [...] enough to ensure that learning will take place"[10]. In his book Communicative Language Teaching Today, Jack C. Richards highlights that in traditional methodology "learning was very much seen as under the control of the teacher"[11]. To sum up, the traditional methodology puts the responsibility for teaching and learning mainly on the teacher and it is believed that if students are present in the lesson and listen to the teacher's explanations and examples, they will be able to use the knowledge.

Unlike traditional methodology, modern methodology is much more student-centered. According to Jim Scrivener, the teacher's main role is to "help learning to happen," which includes "involving" students in what is going on "by enabling them to work at their own speed, by not giving long explanations, by encouraging them to participate, talk, interact, do things, etc."[12].

3.1. The students as passive recipients and reproducers of information

Students require much more than content knowledge. Direct exposure to stimuli and experiences provided by the encounters with real life events and with formal learning opportunities[13] – one of the ways the authors suggest is to arouse the learner from his role of passive recipient and reproducer of information and to turn him into an active generator of new information.

As a philosophy doctoral student, I shall venture to talk a little bit about the so-called "constructivism" – an epistemological belief about what "knowing" is and how one "comes to know"; contructivists believe in individual interpretations of the reality, i.e. the knower and the known are interactive and inseparable; a leading representative who tried to adapt constructivist ideas for the aims of school learning is Josepfh Novak, mentioned above; it is developed in a three-faceted approach:

1. Gives learners the opportunity for concrete, contextually meaningful experience through which they can search for patterns, raise their own questions, and construct their own models.
2. Faciliates a community of learners to engage in activity, discourse, and reflection

[8] Novak, Joseph D. Et al, "The use of concept mapping and knowledge. Vee mapping with junior high school science students" Science edication 67(5), 1983, pp.625-645
[9] Kuzu, Abdullah, "Views of Pre-Service Teachers on Blog Use for Instruction and Social Interaction" Turkish Online Journal of Distance Education-TOJDE July 2007 Volume: 8 Number: 3 Article: 2., Mar 2008, p. 36
[10] Scrivener, Jim. Learning Teaching. Oxford: Macmillan, 2005, p.17
[11] Richards, Jack C, 2008, *Communicative Language Teaching*, Cambridge University Press, p.4
[12] Scrivener, Jim. Learning Teaching. Oxford: Macmillan, 2005, pp.18-18
[13] Feuerstein, R., and Jensen, M.R., 1980, "Instrumental Enrichment:Theoretical Basis,Goals and Instruments.",*The Educational Forum*, p.115

3. Encourages students to take on more ownership of the ideas, and to pursue autonomy, mutual reciprocity of social relations, and empowerment to be the goals.

Constructivism was first developed long time ago, in the beginning of the twentieth century, but obviously and unfortunately, it has not influenced school teaching techniques much. This is so, because Constructivist teaching as a theory or practice has only received attention for approximately one decade. The main problem with constructivism is that since it is a theory of learning and not a theory of teaching, the elements of effective constructivist teaching are not known. However, it provides ground for reflexions on new perspectives and possibilities for teachers to motivate and encourage students to overcome the limitations posed before them by traditional methods.

Here, I mention constructivism as a kind of a "hint", or a "tip" which could be further investigated by education institutions, as in its core lies the belief that the students must somehow take control of the process of learning and become active participants in it – and this exactly is the most valuable base to introduce ecological thinking in young people.

4. CONTEMPORARY TECHNIQUES OF OVERCOMING THE DISADVANTAGES OF TRADITIONAL METHODS

Over the years many new methods have been broadly discussed, some of which suitable for any subject: avoiding routine, changing the attitude of the teacher to the students, introducing different tasks in the form of games and so on. Here I emphasize three methods that are applicable indeed for the needs of ecological implementation in geography lessons, as their very specific nature presupposes and predisposes a development in the interest of ecology. For example, the first of the approaches that is quite spread in Australia provides direct experiences with environments and seeks to develop positive feelings and attitudes towards nature, to foster empathy and to explore, in a practical sense, environmental conflicts and issues.

Žarko Simeunović (who made one of the first attempts to introduce the principles of interesting and attractiveness to the teaching process in 2004) suggested 12 ways and possibilities to apply the principle of interesting and attractive teaching process and here I would like to cite his seventh suggestion, as it is quite relevant and worthwhile. "Geography is discipline in which many teaching contents can be presented outside the classroom, in the near or distant surroundings, and in that way teaching process or individual teaching units could be handled much better. There is almost no teaching unit or at least a teaching module that can not be done in nature. In this way, in order to avoid monotony, the presentations would certainly be more interesting. Teacher can determine in advance teaching units that can be performed in the vicinity of school, but also hose that could be presented in some distant destination, which requires more preparation and planning."[14]

A change in learning environments may also affect the child's ability and motivation to learn. School classrooms are not the only settings for effective learning. More and more educators are using "Out of Classroom" settings as learning environments, where children become educated through experience rather theory. Experiential education is about placing the learner and their learning in a real environment that is relevant to their prior knowledge and the knowledge they will acquire.

Excursions are field trips taken by a class to enhance their learning of a topic. By venturing outside school grounds, students are able to take advantage of unique learning environments not normally encountered within the school classroom. They have the opportunity to extend and transfer their knowledge beyond the classroom and learn in a fun, engaging and more stimulating context. Use of excursions as a pedagogical practice can improve students' attitudes and motivation towards the subject area[15]. It is hoped that this enthusiasm will be transferred to the classroom in other subject areas but also be built on, by encouraging students to undertake further research. Excursions require

[14] Simeunović, Ž. ,2004, "Interesting and attractiveness as a teaching principle", *Pedagogy*, No. 2, pp. 59-67.
[15] Michie, M. ,1998, "Factors influencing secondary science teachers to organise and conduct field trips", *Australian Science Teacher's Journal, 44*, pp. 43–50.

teachers to use teaching methods that are not the "norm" or regularly practiced. It is an opportunity for teachers to go out of their comfort zone, learn and become confident in new and different teaching strategies[16]. It may then encourage them to use alternative novel approaches for other subject areas in the future. This in turn can only improve classroom lessons and make learning more interesting and engaging for their students. Therefore, excursions add variety that is beneficial to both student and teachers.

I should clarify, though, that I'd rather support one-day-trips, as they are safer, especially for the younger children, who are the main target of this method, as its main aim is to teach pupils to care for the environment (for example by keeping it clean, or by participating in the cleaning of polluted areas) and to feel responsible for it. Here, despite that an active participation is required by pupils or students, the teachers still have an important role of guides and leaders who direct and help their "wards" through their way of acquiring environmental knowledge.

Another method that could prove quite effective is **watching documentary films for environmental education**. There are some specific features that make environmental documentaries compelling, informative and inspiring. First of all, teachers can customize such a lesson to focus on core curriculum topics. In addition, the lesson offers opportunities to cover: media and digital literacy, ethics, observation. I personally remember that the last section of the Geography lessons called "Soil, flora and fauna" invoked no interest in me, it was years after I left high school and started watching different programs on TV that I discovered the beauty of unique creatures, ecosystems and new, totally unfamiliar worlds to me. Teachers could also use handouts developed for the particular film, making the students to complete them then. A discussion could be started by asking students what they think about the film watched, if they learned something new and what made a particular impression on them. Students can work in groups as they discuss these questions. They do not need to write down their answers, but they may want to take notes so they are prepared to share their answers with the class. All these activities help children to re-examine what it means to be human and how we live on this planet. Stories of combating global warming and the devastation of mountaintop removal, of promoting food security, environmental justice, recycling and land preservation, teach love and respect for life on Earth. Environmental documentaries also help developing environmental literacy translates into individuals being conscious of the impact of their choices, as citizens and consumers, on the health of the planet and having the capacity to effect change for a sustainable future.

The third method that I suggest is the so-called blended approach. Schools all around the world are increasingly using blended approaches that combine online and face-to-face teaching and learning.[17] **Blended learning** is a formal education program in which a student learns at least in part through delivery of content and instruction via digital and online media with some element of student control over time, place, path, or pace. While still attending a "brick-and-mortar" school structure, face-to-face classroom methods are combined with computer-mediated activities – suitable for the higher grade students, and rather unsuitable for the smaller ones as IT literacy can serve as a significant barrier for them, so for pupils going outside or watching films are better ways to get aquinated with ecological issues. Although I am aware of the fact that nowadays children become very fluent in computers at an early age, in order that this third approach is beneficial for creativeness and active interest and participation, I would recommend it for the higher grades because they could take an assignment seriously and not just in the form of a game.

Here I have used the data from a research which happened in New Zealand[18] which indicates that blended approaches involve a range of advantages for students including, but not limited to, increased flexibility, student engagement and motivation. The goal of a blended approach is to join the best

[16] Ibid.
[17] Horn, M., & Staker, H. ,2011, "The rise of K–12 blended learning" in: Zaka, Pinelipi,2013, "A case study of blended teaching and learning in a New Zealand secondary school, using an ecological framework", *Journal of Open, Flexible and Distance Learning*, *17*(1), pp.24–40
[18] Zaka, Pinelopi ,2013, "A case study of blended teaching and learning in a New Zealand secondary school, using an ecological framework", *Journal of Open, Flexible and Distance Learning*, *17*(1), pp.24–40

aspects of both face to face and online instruction. Classroom time can be used to engage students in advanced interactive experiences. hybrid or blended instruction is the integration of some of the conveniences of online learning with the traditional face-to-face instruction in the learning process[19] (Humphries 2009). While both onsite and online learning can accomplish course and program objectives, in a blended system, these modes of learning are combined in order to enhance the learning and teaching experience for both students and faculty. Using computer-based technologies and web-based course delivery, instructors use the hybrid model to redesign some lecture or lab content into new online learning activities, such as case studies, tutorials, self-testing exercises, simulations, online group collaborations, and threaded discussions (Garnham and Kaleta 2002). Blended learning systematically incorporates the use of asynchronous teaching (facilitated by computer-based technologies) into the traditional onsite teaching in order to maximize both teaching and learning opportunities[20] (Hrastinski 2008).

There are several advantages to blended learning compared with completely online learning or traditional face-to-face learning. While completely online learning might create a sense of isolation among students, blended learning provides the effectiveness and socialization opportunities of the classroom. Students who would be reluctant to contribute in a face-to-face setting are more likely to contribute in an online dialogue and would perform better in a blended learning environment. Technology has the potential to enhance instruction as well as student engagement and learning. Blended instruction makes pedagogically significant use of the Internet and other technological tools while reducing seat time (time spent in the classroom).

These three ways are useful, as they allow students to take an active part in activities that not only attract their attention, but help them gain control to a certain extent of what they are doing. Being out helps children to feel the real atmosphere and essence of nature, to start regarding themselves as a part of it, and using the new technologies gives them the possibility to search and make conclusions from an entirely different point of view: from the point of view not of a person who memorizes and reproduces, but of a person who creates (even just in the form of a project) and becomes responsible for making decisions and being responsible for and responsive to everything that happens around them.

4.1. Pros and cons

As I mentioned in the end of the previous section, there are some benefits from these approaches that deserve attention. It has been concluded for instance that field courses in geography are effective in learning since they are affective.[21] The affective is connected to learning in excursions, with all its efforts involved, as a non-ordinary learning situation, which normally takes place in a classroom. This is so, because An enacting oriented way of viewing learning in field can thus open up a way of understanding the relation between representations and reality, it usually does not include the elements of the world as part of thinking, but as representations separated from the students who listen and imagine.

Ecological films, or just documentaries about nature give the students the opportunity to see places and species they may never have the chance to see in person, and thus become aware and compassionate towards the different environmental problems around the world. These films not only reveal the beauty of the different ecosystems, but also pose serious questions about their preservation. Children and teenagers should be introduced to such topics (of course in an appropriate manner, corresponding their age), so that they start caring for the Earth and if not start actively work for its survival, then at least start trying to reduce their harmful habits to a minimum – prevention is also a form of support(often a very effective form indeed).

[19] Humphries, J,2009, “Gauging Faculty Attitudes Toward Online and Hybrid Learning”, *Journal of Applied Computing 5* (1),pp.28–32.
[20] Hrastinski, S, 2008, "Asynchronous and Synchronous E-Learning.", *Educause Quarterly 31* (4), pp.51–55.
[21] Boyle, A., Maguire, S., Martin, A., Milsom, C. Nash, R., Rawlinson, R., Turner, A. & Wurthmann, S. Conchie, S.(2007). Fieldwork is Good: the Student Perception and the Fieldwork Domain. *Journal of Geography in Higher Education, 31* (32)., 299-317.

The study in New Zealand shows that blended approaches encouraged student-centred learning. As a result, the students developed independent learning skills that depended on their confidence, maturity, and available support. Flexibility was enhanced for the students because they had extended learning opportunities beyond school hours. This was particularly important when access to the school was limited. Student engagement and motivation increased for a range of reasons, such as the opportunity to work independently, use multimedia, learn new ICT skills, or showcase their work to others, including their parents. Although there might be some objections about the relevance of such a study in terms of our Bulgarian conditions at school, as a country which has the ambition to be a place of modern developments and innovations, we should be open and positive to methods which have been recognised as efficient all around the world, as blended approaches have been used in many other countries as well.

However there are also some concerns, regarding both excursions, documentaries and blended teaching.

Teachers, especially those with less classroom experience, abandon important school excursions because of liability and litigation risks. The most likely reason a teacher or school will face legal action is in negligence where a student has been injured while under the school's protection. They are sometimes too frightened to take their students outside of school grounds because of the threat of being sued or lose their job. Such fears also arise owing to a lack of organisational skills, and concern about liability and litigation. Newly graduating teachers often have problems with students' discipline and even respect for them and this provides additional concerns on the issue. There is also a concern that there is so much paper work and bureaucracy in terms of getting approval for extra-curricular and co-curricular activities.

A solution could be that long excursions are replaced by one-day-trips, but still teachers should bear safety measures and organisation in mind. An excursion organised by a teaching staff member must follow certain procedures before authorisation by the Principal. Some considerations by teaching staff to avoid their breach of duty, should include – number of students involved; age; behaviour of students; environment involving the activity; role and responsibility of non-teaching staff and volunteers; supervision; emergency response strategies; and approval of the Principal. All of these considerations assist in establishing a common risk management process.

It is obvious that the responsibility lies on the adults and in this case mostly on the teachers and those who organise the excursion, so the best way to avoid any emergency situation is a well-planned schedule of prevention and risk management. The crucial element here is the preparation of the event and though the lack of experience appears to be one of the major barriers, it should in no way be the reason for the rejection of a new opportunity to enrich and support students' knowledge, especially in a domain which concerns the survival of the planet. After all, practical experience arises out of trial and errors and if errors are forseen and calculated the chances are that they can be reduced to a minimum and thus the best possible experience is provided.

The main worry concerning documentaries is about their length – how much time of a particular lesson should be devoted to them and how often should they be watched? The main responsibility to organize the lesson and make it interesting is laid on teachers of course, so in this case again we are facing a challenge. I personally wouldn't recommend a strict timetable on watching films – teachers should observe children's reactions and attitude and should respond in an appropriate way. Of course this activity should be consistent with the ordinary teaching material, but I believe that some flexibility regarding the content of the students' books should be allowed – teachers should feel free to adapt and even omit a slight part of a unit from the book, so that a way for innovations is made. What I'd like to give as a tip though, is that the film shouldn't last for more than fifteen minutes – after that students become less concentrated, may become even distracted and the whole effect may be lost.

The effective implementation of blended approaches is a complex process, especially when aiming for educational change rather than supplementing traditional practices. Research indicates that some of the main challenges that emerge are linked to students and their readiness to learn in a blended environment, teachers and their commitment and capability to effectively teach through blended

approaches. Students' low readiness to learn in a blended environment was an important challenge, especially in terms of learning independently and confidently, and effectively interacting online, as well as understanding the usefulness of the implemented practices. This approach shouldn't lose its seriousness and just become a form of a game. On the contrary, it should encourage students to think in a more mature way.

The potential to build capacity among teachers is a challenge at school, especially in terms of using teaching in a blended environment with adequate pedagogical foundations. This challenge encompasses increased time demands, some teachers' attitudes towards blended teaching and learning, and pedagogical approaches that need to change to teach in a blended environment. The last point – the traditional pedagogical approaches – may represent a significant obstacle especially here, in Bulgaria, because (I express my fears here) on behalf of bureaucracy there is no desire to spend time or invest money in order to improve the situation.

4.2. Why is it important to implement environmental thinking in children and young people

One of the greatest tasks for society then is to equip children with the attitudes, values, knowledge and skills necessary to rethink and change current patterns of action and to secure healthy, just and sustainable futures for all. Environmental education is vitally important for this. Yet, for children in the early childhood years, with the biggest stake in the future, there has been a major absence from curriculum theory, policy and practice of approaches that stress environmental perspectives. Children are already being colonised by exploitative ideas and practices towards each other and the environment. Children are already learning to be avid consumers, to value the trivial, to be instantly gratified and entertained by their toys, computers and parents. It has been observed that children are regarded as "economic units", "bombarded with multi-million-dollar ad campaigns to make them desperate to eat this hamburger, wear those shoes, eat that ice-cream, drink that drink, buy that toy"[22]. We already have rapid population growth with fewer resources and decreased capacity of the natural and social systems on which we depend to support this, combined with rising expectations for greater material comfort. The children we care for and engage with in our classrooms and homes need adults – teachers, parents and others – to become much more concerned with and involved in personal and community decisions about current actions and future prospects. Environmental education, with its major goals of ecological sustainability and social justice *within* and *between* generations, is of paramount importance. We need to teach these ideas to children and to demonstrate their meaning through practical application. We need to match action with rhetoric and not just talk about recycling and energy conservation but practice it too. There are significant 'environmental' lessons to be learned regarding sharing nature with other species, nurturing native plants and animals and taking responsibility for their care, including the maintenance and protection of habitat.

4.3. Why is it important to train qualified and motivated teachers

As it was shown, teachers play a vital part in the whole process (despite the fact that these methods give more freedom to the students and require from them enhanced participation) as they still lead the activities and set the frame of what happens and it can be a real drawback and blocking of improvement if teachers do not (or cannot) take up their new role properly. The 'environmentally-educated teacher' is crucial in transforming attitudes, values and actions that lead towards sustainable social and environmental relationships. Ecological education needs teachers with environmental perspectives, who actively help children to resist a focus on consumption and possessions; who help them learn to act collaboratively to be caretakers and protectors of the earth and of each other. That is why teachers must create the learning environment that helps motivate students not only to come to classes but also want to learn and enjoy learning. The teacher has one of the most important roles in change with blended approaches because "educational change depends on what teachers do and think"[23].

[22] Adams, P.,1996, "Preying Games" *The Weekend Australian*, Review section, April 27-28, p2.
[23] Fullan & Stiegelbauer, 1991, *The New Meaning of Educational Change*, Ontario Institute for Studies in Education, p. 117

It is important that they themselves are confident with what they are doing, otherwise they will gain neither respect, nor support from the students, let alone desire for participation. On one level, teaching requires a lot of preparation, hard work, attention, and at the same time it offers the possibility to improve education, and thus gives a chance to make it interesting and attractive using different teaching tools, forms and their combinations. On the other hand, teachers should be flexible and open to new methods, they shouldn't be afraid to try, even if they sometimes err, as there is no experience, knowledge, let alone progress if teachers refuse to become part of the process.

For example, teachers should enrich their teaching with a variety of resources, depending on their confidence to experiment with blended approaches. Teachers' use of online tools has to vary from incorporating simple Web 2.0 tools in their face-to-face classes, to implementing digital portfolios, online learning environments, and VC tools. Blended teaching changes the role of teachers, who are encouraged to move away from their traditional role towards facilitating student-centered learning. In the study from New Zealand I quoted above, teacher participants explained that capacity building, including learning how to effectively implement blended approaches and supporting students, was one of their biggest challenges.[24] As many analysers have already observed, "Education should be organized in the way that students find it interesting, attractive, exciting, unique[25]". Not everyone finds the same content equally interesting, and because of that, the teacher is obliged to present content to provoke interest in all of the students.

What is more, teachers are not only a kind of innovators, but also founders, which means setting and continuing a tradition that develops in every following generation. The question here is – is Bulgarian education system willing to support such changes?

4.4. How to adapt teaching curriculum

The role of the school leadership is also very important in providing teachers and students with adequate infrastructure to back up these new activities. The school should be responsive to increased resource demands and should plan to further improve the available infrastructure. For instance, nowadays a TV and a DVD player (or just a laptop) are not so expensive to obtain, so I firmly believe that Bulgarian schools could afford spending a certain amount on such tools.

The school principal should encourage teacher experimentation with a variety of online tools, acknowledging the potential of blended approaches to enhance the school's vision for engaged and independent student learning. The principal should also have a very positive attitude to blended teaching and learning, acknowledging the importance of effective pedagogy rather than the use of ICT as an end in itself because ICT and online tools are just a part of the process. The principal should encourage experimentation with new tools depending on teachers' and students' needs, and encouraged teachers to create their own professional development. It is also advisable that the importance of sharing skills and knowledge, not only among teachers at the same school, but also among teachers from different schools is acknowledged.

Classroom procedures are very important because they help both the teacher and students to make the learning environment more efficient, productive, and positive. Good behavior and learning go hand in hand, therefore, teaching the rules and expectations are essential in any classroom. For this reason, in the future classroom, teachers must plan on sharing their expectations with the students and building the rules together with them.

As a result of different researches four main categories of support that greatly influence faculty decision to develop and implement new approaches are identified. These categories include technology, pedagogy, institutional policies, and faculty-centered issues. In the area of technology, for example, reliability of technology, technical support, hardware/software availability, and connectivity are the biggest concerns among many faculty who are teaching and/or thinking about teaching hybrid and online courses.

[24] Zaka, Pinelopi (2013). A case study of blended teaching and learning in a New Zealand secondary school, using an ecological framework. *Journal of Open, Flexible and Distance Learning, 17*(1), p.31
[25]Simeunović, Ž. ,2004, "Interesting and attractiveness as a teaching principle", *Pedagogy*, No. 2, pp. 59-67

5. CONCLUSIONS

True education is based on inspiration and motivation not memorization. We are obliged to facilitate the learners' learning experiences so that they take ownership of their learning environment because in this way they become learners who are interested in improving themselves and the others.

As it was pointed out, teachers are an important factor in the whole process, they often may feel too burdened by such new techniques as the above suggested and therefore do anything possible to avoid them. In order to overcome such a problem the government and the institutions responsible for education need to provide better training and professional support, so teachers feel comfortable exposing pupils to important out-of-classroom lessons and using and involving students in different projects and activities that require more freedom but at the same time may lead to disrupting behaviour or even chaos during the lesson. All in all, for some subject areas, excursions and field trips are vital in getting a better understanding of the content being covered, and it would be a regress if that experience is diminished.

Although in my report I have used researches from different parts of the world (such as new Zealand), their discoveries could be used in Bulgaria as well because they point out to solutions to contemporary teaching experience and if our country wants to keep up with the world trends, it should follow their example, otherwise there will be no development and improvement in Bulgarian education. What is more, subjects like Geography need special interest, as they are most likely to contribute for the acquiring of ecological thinking and behaviour in pupils and students, from whom a great deal of the future of the planet depends.

There should be Initiatives funded by the Ministry of Education (e.g., funding for ICT) contributing to teachers' capacity-building and to the growth of using effectively field trips, documentaries and blended teaching and learning at the school. Bureaucratic and political organisations are recommended to provide/continue to provide financial support and to implement visionary policies regarding e-learning, targeting professional organisations and the wider educational context and considering the needs of schools. Capacity-building among schools and the development of a common vision towards teaching and learning in the 21st century can therefore be enhanced.

Last, but not least, there should be affordable, reliable tools, incorporating 21st-century learning affordances because in that way not only students' experience gets enriched, but teachers' level of confidence as well. In conclusion, it can be said that on the one hand, methods like the above described are increasingly used and it won't be a surprise if they become "a must do" and an inseparable part of the teaching progress. On the other, there are many challenges that must be taken into consideration – factors which may be burdening for the people involved in Bulgarian education, but without which there would be no progress at all. Finally, I'd like to say that if we want better educated and environmentally responsible generations, we are obliged to invest time, money and efforts. There is no taking without giving, but I firmly believe that the cause is worth it.

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