

ENVIRONMENTAL EDUCATION: TEACHING IN THE PRESENT, PREPARING STUDENTS FOR THE 21st CENTURY

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Abstract

This paper examines the environment not as a scientific subject matter, but as a teaching process which includes social and cultural elements. The purpose of this study was to investigate the teaching methods, curriculum planning needs and how we shape hands-on the subject; what information and lessons we provide. Research data indicate ways how to improve these issues and provides answers to the questions: Why is environmental education important? How do curriculum and methods of teaching help in the quality of knowledge? How are we (professors) preparing our students to live in this new century? The findings showed a considerably low level of environmental knowledge among all the investigated students. The study is based on the analysis of questionnaires about students' perception and beliefs. The paper is divided into two parts. Part I outlines the key issues related to the understanding of "the importance of environmental education reform". Part II analyzes teaching, learning approaches, conclusions and recommendations.

Key words: *environment, education, curriculum, quality of teaching, knowledge.*

Introduction

In the 21st century, there is an important concern about how to preserve and protect the environment for future generations. As our planet is facing a growing number of problems related to the environment, its education becomes an important discipline to achieving these goals having the duty to assist our learners to become citizens in a world that demands knowledge, problem solving skills, competence and caring. The environmentally responsible thoughts and willingness to make sacrifices in later life is mostly dependent on the formation of our students. "It is widely agreed that education is the most effective means that society possesses for confronting the changes of the future. Indeed, education will shape the world of tomorrow" UNESCO. *Educating for a Sustainable Future* (1997: 13).

The study points out that the environmental education lags behind when it comes to adopting changes related to environmental and social justice and to engage the community in making what is learned in public schools and universities as a central concern. The many factors that we encounter as the study highlights are indicative of educational problems, because the present curriculum does not consider them as connected events. As a matter of fact the environmental studies are not yet integrated into other fields and are only taken seriously by a minority of university faculties at a time when the universities, have a high responsibility for the

successful integration of Albania to European Union. The research defines the importance of environmental education in the concept of intercultural competence and it's establishing within the framework of transformative learning theory by offering ideas and strategies for facilitating its development. The study examined a level of environmental awareness and knowledge in the concept of intercultural competence and its relation with environmental responsibility among high school students. We recognize the need to do more, we know many environmental problems have solutions, but we often lack the information and the understanding to act and plan effectively for our future. From the student perspective, the key problem still lies in the area of quality and quantity of environmental knowledge. The survey highlights that the knowledge, values, skills and tools are all sourced from formal and informal education. As educators we need to use the past as a guide to the present and to be better prepared for the future.

Methodology of Research

The study was designed to the curriculum planning needs and problems in line with global environmental issues. The study aimed to provide evidence of such needs from practitioners' perspective and opportunities to explore the effectiveness of current environmental approaches. The study is based on 1) the perceptions and beliefs of the students of Political Science and Law University; 2) level of environmental knowledge in two cities; 3) the role of curriculum in the development of future aspects of environment; and 4) the role of media in the process of environmental education. The research methods used were questionnaires analysis, formal discussions and interviews.

Participants

A considerable number of social groups of two cities were part of the research. The target students in the research were comprised of first year students of "Luarasi" Law University, Political Science aiming to provide evidence of the needs of current environmental approaches. All the students are freshmen. They are preparing for the bachelor degree in the field of law and political science. These students are first state certified in Albania and then they may continue further studies in other national or international universities. The curriculum is based upon professional standards and includes a general studies component and a professional component of subjects exploring the theories of different subject matters with a total of 30 credits per semester, and 180 credits after three year studies. (Credits are based on the European Transfer Credit System).

Instruments

Interviews were undertaken with the district teachers of natural science and civic education in the frame of a broader activity increasing public awareness of the environment in two regions of Albania that covered a considerable number of primary schools students, science teachers, and people with higher and lower education. A group discussion was arranged providing the opportunity for each group to summarize their opinions on the points and then provide their concerns and their statements. Sixty percent of the interviewees consider themselves to be active in environmental issues, while only 25 percent have actually made a concrete effort in any specific issue.

The activities covered a wide spectrum of environmental activities and range from the general to the specific, from first year to upper levels, and from graduate to postgraduate, they can move between the levels as they engage in the learning process. They involve student engagement in pair work, small and large group work, case analyses, debates, simulations and

role-play. The activities were divided into three broad levels: 1) Developing the understanding of the environmental education; 2) Raising awareness on environmental issues; 3) Facilitating autonomy toward environment.

A questionnaire was administered in December 2009 and consisted of four questions: 1. Why is environmental education important? 2. Do you consider environment as an integrated subject? 3. Do media play a role during the teaching process? 4. What exactly is intercultural competence in educational environment?

Findings

The findings are analyzed according to the key questions mentioned above and in relation to the themes which emerged from the data analysis. It is noteworthy that the responses of the two respective faculties Law University and Political Science faculty have differences which may be attributed to different orientation of the subject matter. Questionnaire ensured data from all the participants in the target population (Berat and Fier) to provide an overview of their knowledge on environment. The study gives a clear picture of:

- 1) The existing situation of environmental knowledge in two cities of Albania.
- 2) The background of curriculum environmental education in two faculties (“Luarasi” Law University and Political Science of the University of Tirana) and what is done towards infusing such issues into specific subject’s matters.

The survey highlights the fact that there is a need for concrete curriculum reform to protect human health and improve the quality of life even through environmental education. The results highlight that teaching and learning environmental disciplines can play a very decisive role in shaping the new global citizen. The results indicate ways how to improve these experiences and provide some recommendations.

The Importance of Environmental Education

The concept of environmental education is not new, although it has changed over the years. Environmental education teaches students about the natural environment and about how human beings can live in a way that respects the ecosystem and does not damage the environment. “We generate our own environment. We get exactly what we deserve. How can we resent a life we’ve created ourselves? Who’s to blame, who’s to credit but us? Who can change it, anytime we wish, but us?” W. Clement Stone (Quotations 5 May. 2010)¹. Today, a great majority of Albanians are convinced that the environment will become at least one of the dominant issues and challenges of the 21st century; as the growing needs of the growing global population exercises pressure towards the limits of the earth’s resources and ecosystems.

From the theoretical point of view, we may therefore consider environmental preferences as a long-term result of education and socialization, and that they may not easily be changed in the short-term and the environmental issues do not only depend on preferences but also on the situational context. As humans have great impacts on the environment and its resources, education seems to be the best tool for providing the people with an understanding of the effect of their actions. Albania like many other countries is becoming more concerned with the idea of being a country with high standards of ecology and with leading green lives, teacher educators have a decisive role to play in promoting those ideals and teaching others how to do it. It is a

¹ www.thinkexist.com/quotations

way of helping individuals and societies to resolve fundamental issues relating to the current and future use of the world's resources. This education offers a perfect opportunity for educators to use this kind of approach since many of the solutions to current environmental problems call on interdisciplinary resources.

Environment is multi-disciplinary, which involves natural science (physical and biological science), social sciences, and applied sciences demanding a solid knowledge of technology, land use, ethics, domestic law, international law and many other subjects. According to Albanian State reports of the Environment 2009, a number of issues provide grounds for serious concern and serves as a serious reason why we should infuse environmental knowledge into high schools.

Teachers` Opinion

The majority of teacher educators think, 95 percent of them, consider environmental education an important subject to students and to our education system as a whole. All of them think that environment is a complex area, simultaneously existing as a political movement and economic, social, and cultural one and the environmental education projects as an ideal. The teachers said that the building of the curriculum according to different levels by bringing information from the real world into the classroom in a strong academic context will improve the quality of knowledge. They also said that their students' knowledge gained through education, will be the most successful strategy of environmental management. According to them it is environmental education which can best help students make the complex, conceptual connections between economic prosperity, benefits to society, environmental health, and the well being. As educators they need to use the past as a guide to the present and to be better prepared for the future.

The majority of teachers think that media is a very decisive factor to promote the importance of such education because the schools prepare students for the new century. The use of this information can help them and educational institutions achieve better results from the activities which are considered as more effective in imparting environmental knowledge and motivating them to action. The teachers consider as an important instrument if they focus on all of the problems that are likely to affect students' actions on the environment. The teachers think that to foster global citizenship in students, colleagues, they must create conditions to require knowledge that push participants to understand their role in the world, their understanding of other cultures, and their exploration of solutions to pressing 21st century challenges. They know that this reflection doesn't happen immediately it takes intentional and well thought planning on the part of all to ensure that all students will push themselves to deeper thinking (critical thinking) on the environment. If environmental education emphasis critical thinking, interdisciplinary teaching and the achievements of the students will help to meet educational reform objectives said the teachers.

Students` Opinion

A majority of these problems are of our own making the students said, 58 percent of law students and 62 percent of social science students consider environmental knowledge a huge volume of literature to digest, and 90 percent of both students answered that values, knowledge and skills to achieve results in support of a sustainable environment will not occur overnight. They highlight as well that on global level, environmental education prepares them to solve even the environmental crisis. They think that to ensure a sustainable future, it is very important its impact on community attitudes and specific sectors (business and industry). The study points out that 43 percent of students consider educational programs traditionally seen as places

for learning about things, rather than how to do things; not venues for action.

Therefore, the results of the survey pointed out that the teachers and students opinion go in line with the following UNESCO's Declaration that: "Environmental education is a learning process that increases people's knowledge and awareness about the environment and associated challenges, develops the necessary skills and expertise to address the challenges, and fosters attitudes, motivations, and commitments to make informed decisions and take responsible action (UNESCO, Tbilisi Declaration. 1978)."

Environmental Education as Social Instrument in Developing New Concepts

Today in Albania, one of the latest tendencies in education has to do with the push for the integration of different subjects and disciplines when presenting information to students in the classroom. This concept is appealing to environmental education as well. It is becoming more popular for teachers to integrate the subjects of natural science, and technology with different aspects of the humanities to help students gain a better understanding that they may effectively apply the concepts and knowledge in real world situations. In addition, we face significant challenges with respect to those environmental teaching problems which are essentially domestic. Decades ago when environmental conservation was not the important issue that it is today, the goal was to establish an appreciation for the enjoyment of the nature but today education in Albania does not only retain enjoying the nature as a goal for consolidating environmental knowledge to students but it also includes the importance how to improve the quality of life by protecting the environment and by enhancing intercultural competence. The strength of our curricular tools through intercultural competence is measured through the life actions of our students and therefore its impact will be a decisive factor of the next generations' integration that is going to become global. "Different scholars have written that intercultural competence does not comprise individual traits but is rather the characteristic of the association between individuals and that no prescriptive set of characteristics guarantees competence in all intercultural situations (Lustig and Koester 2003)". This kind of comparative analysis has the potential, as Byram (1997, p. 20) notes, to turn "learners' attention back on the practices, beliefs and social identities". We must strive to create educational experiences that challenge our students' perspectives both locally and globally.

Different Social Groups' Opinion

There were some questions in the survey which covered a wide spectrum of activities in relation to the development of intercultural competence in the environmental education and other disciplinary contexts. The questions are focused on examining the education related to embedding intercultural competences aiming to analyze the main issues of environment during the teaching process.

The study was completed in the frame of a broader activity increasing public awareness of the environment in two regions of Albania that covered a considerable number of social groups such as primary schools students, science teachers, people with higher and lower education and students of the two different universities. The main criteria to evaluate knowledge were "a knowledge indicator" constructed by the district teachers of natural science and civic education. It consisted of six questions relating to the basic knowledge of environment. Questions in the first part tested the knowledge of environmental issues as an instrument of intercultural competence. The second part was constructed in order to verify their attitudes and opinions toward protection of environment. The research defines the environmental education in the concept of intercultural competence, and establishes: 1) the framework of transformative learn-

ing theory, 2) the raise of the awareness of the new generation who understand the need to have humans' live sustainable lives and 3) the need for personal initiatives and social participation to achieve this sustainability. It offers ideas and strategies for facilitating these developments.

The following findings showed a considerably low level of environmental knowledge among all the investigated students and revealed that public suffers from an environmental literacy gap that of course appears to be decreasing. Only 14% of all students identified correct answers for the six questions included in the "knowledge indicator"; 67% was able to respond correctly to three questions. A group of students who originated from Berat² showed higher knowledge on environment comparing with those of Fier because environmental education at the high school level can vary widely. Some schools offer highly scientific classes where students learn about the science of the environment and how human actions may change it. Other classes may be more political or legal in nature and discuss different environmental laws and United Nations declarations and conventions. It was pointed out that the students cannot link their knowledge of science with the environmental protection, and their civic education with environment as well. In the educational curriculum most of the subjects, its principles are not always realized in full. They lack the link of a subject matter with other subjects because the infusion is not considered as an essential part.

The data also indicate that out-of- door experiences can be combined very effectively with formal school programs and enhance the learning obtained from both. It should be highlighted that out-of-school environmental education experiences account for a significant amount of what most people know about the environment, their attitudes and values toward the environment, the knowledge of environmental issues, and knowledge of environmental actions. The survey pointed out that schools and out-of-school organizations must work together to use the strengths, their resources, and settings to enhance intercultural competence. Such inner environment which enables culture values become a part of students' spiritual world in the basis of the integration of subject and process levels of their inter-cultural competences.

The research data also indicate that the potential of media evidently has not been used during the teaching program but still the media (television and newspapers) is considered as an important and effective instrument for improving intercultural competences and environmental actions. However, simply raising awareness of these issues is insufficient to bring about change but the use of the model of raising the awareness campaigns in line with the perception of cultural similarities and the their differences is highlighted as an effective one.

Too often law students and social science are left feeling overwhelmed at the enormity of environmental problems having no sense of connection to the judicial system because the teaching scope is usually too limited to constitute a complete environment law course. Although substantial progress in this field has made, further advances in both technical and social aspects of this concept but still further development is needed. The study highlights that to understand the laws and the policy; the students of both universities must spend a significant amount of time on studying environment through case studies and legislation. It is pointed out that an effective policy framework for protecting and managing the environment in the future is the teaching course which covers the sound legislation, sustainable management, and responsible actions by individuals and communities. We must strive to create educational experiences that challenge our students' perspectives both locally and globally. If, as Gieve (1999) hopes, such study "empowers students to co-create an interactive context of their own intercultural space" (p.7), then the teaching process can be very successful and the teachers can develop effective teaching methods and materials for increasing cultural, environmental awareness and sensitivity among the students. In doing so, it goes far beyond traditional emphases on the achievement of such formal skills or specific knowledge of the course content in the national curriculum.

² Berat and Fier are two cities in the south of Albania

Recommendation

1. Environmental educational materials should be fair and contemporary in their description of environmental problems, issues and conditions; 2. Environmental education should make students aware of the feelings, values and attitudes that guide opinions on such issues; 3. Environmental education should build skills such as critical thinking to enable students to handle problems of environment in different situations; 4. Environmental education should promote civic education, responsibility and encourage students to make a change. 5. Environmental education should be instructionally sound and clear. This means that different learning styles should be used and that there should be objective goals for the assessment of the students; 6. Environmental education materials should be designed in a way that can easily be used.

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