

Education for Sustainable Development in the Curricula of the Albanian Schools of I-IX Grades

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Abstract

Education for sustainable development as a philosophy and trend of development, promotes the change of people's point of view of a safer world, healthier, more prosperous, therefore improving the quality of life. This education is neither just theoretical information, nor duty of a specific subject or area of learning, but a cross-curricular theme of an interdisciplinary nature. Therefore, it requires complex efforts of all subjects and areas of learning to create the essence for gradual change, for a change of the learning process. The research objective of this study is to assess the extent of the education for sustainable development in the curricula of different grades in elementary and secondary schools in Albania. The analysis covers concepts of this education linked mainly to environmental pillar in the student textbooks. A total of 23 schools are included in the assessment in 10 different districts of Albania: 9 in rural areas and 14 in urban areas. The opinions of school principals, teachers, students and parents are collected and analyzed. The sample is represented by 2,500 individuals: principals (40), teachers (231), students (1143) and parents (1086). The results show the sensitivity of the school and the society for this education, although it is not structured and organized as the green line in different subjects, from I to IX grade.

KEYWORDS: Education, development, cross-curricular subject, student, textbooks, environmental

Introduction

The Education for Sustainable Development, frequently is narrowed down to terms which in our education system implies the recognition and clarifying process of the concepts, development of skills and certain attitudes, to understand and evaluate the interactions between man and his environment, his culture and biophysical surrounding environment. It follows the objectives which aims¹ at providing opportunities for all students to acquire knowledge, meanings, necessary values and attitudes to protect and improve the environment and the ways the daily environmental is forwarded to children through the educational system. In this study is presented the situation viewed from the perspective of metamorphosis and global trends related to environmental education issues evaluating the influence of current development means of environmental education to students, teachers and parents and making realistic and consistent suggestions regarded to the involvement of environmental perspective in the field of primary and secondary education. The

¹ Tbilisi Statement (1977) - the first intergovernmental conference in the world about environmental education organized by UNESCO (Organization of the United Nations Educational, Scientific and Cultural Organization), in cooperation with the Environmental Program of the United Nations (UNEP) in Tbilisi, Georgia (USSR) from October 14-26, 1977.

objectives of this education in schools are for the students to be able to analyze the environmental information bearing a critical approach towards it and drawing conclusions from individual observations or analysis of the various source materials, to find possible solutions to environmental improvements. Environmental Education took place mainly focused on nature not touching many social and economic components. The school practice for the execution of environmental education recognizes as the most widespread form of organization of the curriculum for this education, the cross-curricular form. It is worth mentioning the fact that this model has basic methodological features of working in groups/teams in collaboration with a mentor/teacher, but there should be teachers (except teachers of biology and chemistry) prepared in terms of environmental concepts or ecological principles of their subject areas.

Methodology

Statistical analysis of the implementation of environmental education in schools supports the findings of research papers, and the juxtaposition of practical development of environmental education’s concepts in Albanian schools. The understanding of the reality of the school, how environmental education comes in classes to the teacher and learner, is a very important step of this cycle. It includes the following steps:

1) Questionnaires: four different questionnaires are composed to target principals, teachers, students and parents. The one targeting principals aims at understanding how environment gets to the school practice and how he/she assesses the elements of environmental education. The one targeting teachers aims at understanding how they consider the teacher and subject role and own contribution in practical terms. The achievement and results on environmental education is assessed through students’ questionnaire. Through parents, the study assesses how the spirit of this education is transmitted from students to families and vice versa.

2) Sampling in pilot schools: The team obtained a geographically representative sample country wide, of targeting urban and rural school profiles. 10 areas of Regional Education Directorates (at regional level) and Education Offices (at city level) are selected. Within each area, two schools are identified, respectively one in the urban area and one in the rural area. A total of 23 schools are included in the assessment (9 in rural areas and 14 in urban areas). Details of the sample are presented in Chart 1:

Statistical evaluation sample									
District	Schools	Cou ntry side /Cit y	Princ ipals	Teac her	5 th gr ad e stu de nt	5 th gr ad e par ents	9 th gr ad e stu den ts	9 th gr ad e par ents	Sum
TIRANË	1. Edit Durham 2. Sabahudin Gabrani 3. Pjeter Budi 4. J. De Rada	City	7	54	12 2	106	113	113	515

FIER	1. Pinellopi Pirro 2. Koli Dimo	City Cou ntrys ide	4	21	54	53	59	59	250
BERAT	1. Zihni Toska 2. Fushë-Peshtan	City Cou ntrys ide	3	10	57	57	64	64	255
MAT	1. 31 Korriku 2. Haxhi Lata	City Cou ntrys ide	2	21	48	46	59	50	226
ELBASAN	1. Sule Harri 2. Ali Agjahu 3. Europa	City Cou ntrys ide	6	30	100	96	98	94	424
LIBRAZH	1. Vilson Blloshmi 2. Rrajcë	City Cou ntrys ide	4	20	25	25	25	25	124
PEQIN	1. Adem Bedalli 2. Pajovë	City Cou ntrys ide	2	10	25	21	27	26	111
BULQIZ	1. Shefqet Tançi 2. Asllan Keta	City Cou ntrys ide	4	31	46	43	52	46	222
SKRAPAR	1. Kahreman Ylli 2. Riza Shahini	City Cou ntrys ide	4	12	37	33	40	40	166
KUCOVE	1. Dalip Baku 2. 18 Tetori	Cou ntrys ide City	4	22	47	46	45	43	207
Sum			40	231	561	526	582	560	2500

Chart. 1: Size and distribution of the sample

3) Data processing: The data gathered through the questionnaire are processed by using IBM SPSS Statistics version. In order to compare the rates, Chi-Square test goodness-of-fit was used. The minimal expected frequency for each case is >5 . Each statistical test made, the changes are statistically reliable for each $p < 0,05$. The set up database for this process is open for adding other variables, if needed.

For the academic year 2014-2015², in pre-university education, only the 4th and 5th grades had one hour per week dedicated to extracurricular activities. Therefore, teachers have to prepare the activity plan for extracurricular activities with topics such as: human rights education, environmental education, education for peace and tolerance, healthy food, etc.

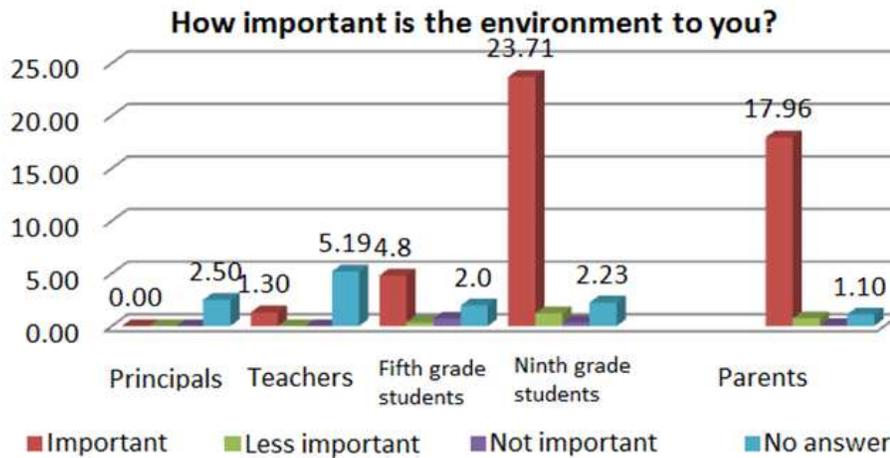
Results of the study

Evaluation of the implementation of environmental education objectives’ policies and plans in the basic education system covered 23 schools, 14 of which are located in cities and 9 in country sides, distributed in 10 districts of Albania.

In total, the sample is represented by 2,500 individuals, out of which 21 principals, 19 vice principals, 231 teachers of which 66 elementary and 157 secondary cycle, 1143 students of whom 561 in the 5th grade and 582 in the 9th grade, and 1086 parents. Parents’ age varies between 29 and 70 years (average age 40.6 years). 26.4% of the parents have a low educational level (28.5% of mothers and 24.4% of fathers), 42.6% have a secondary educational level (39% of mothers and 46.4% of fathers), and 28.4% have a high educational level (30% of mothers and 26.9 % of fathers). In total 57.7% of parents were employed (49.9% of mothers and 65.7% of fathers).

More than half of the teachers, including principals, had a work experience of over 20 years, and still more than half of them had not received training on environmental education. The obtained results from the analysis of some of the questions of the questionnaire addressed to the target group follow:

1) How important is the environment to you? For all target groups in the evaluation sample the environment was very important (graph. 1). The sample of the study represents individuals interested in the environment. Based on selected statistical test (Chi Square goodness of fit) $p^* < 0.01$ only for alternative “Important”. For this alternative, there is a reliable difference among the questioned categories.



Graph 1: Evaluation of the environment’s importance in the evaluated sample
Sources of environmental information to target groups during the evaluation are different.

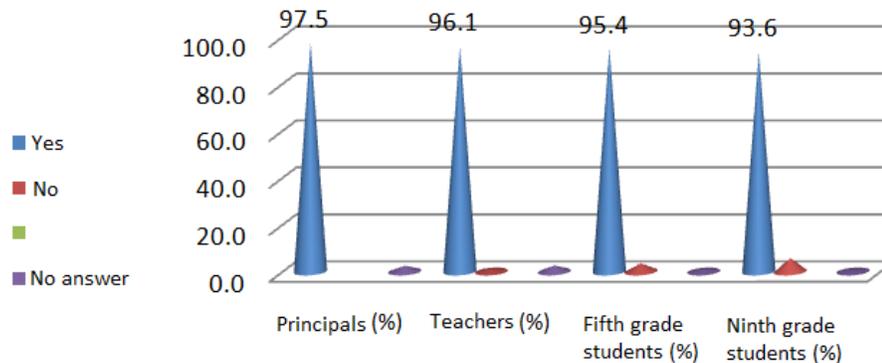
² Instruction Nr . 23 , dated 08.08.2014 , "For the 2014-2015 school year in Secondary Education "

2) Which are the main sources of environmental information for you? According to collected, Television and the Internet prevail in all groups. Television got the highest percentage chosen among principals, teachers, parents and students of 9th grade, but not by the ones of the 5th grade. 5th grade students chose “the school” as the main source of environmental information. Textbooks and schools are chosen by both groups of students. Films are a source of environmental information for the adult group (principals, teachers and parents). Activities focusing on environment organized by environmental organizations represent a significant source of environmental information.

3) Have you organized environmental activities in your school? Almost 100% answered positively. On the other hand, only 87.4% of parents confirmed this fact by supporting teachers and pupils’ alternatives (Graph 2).

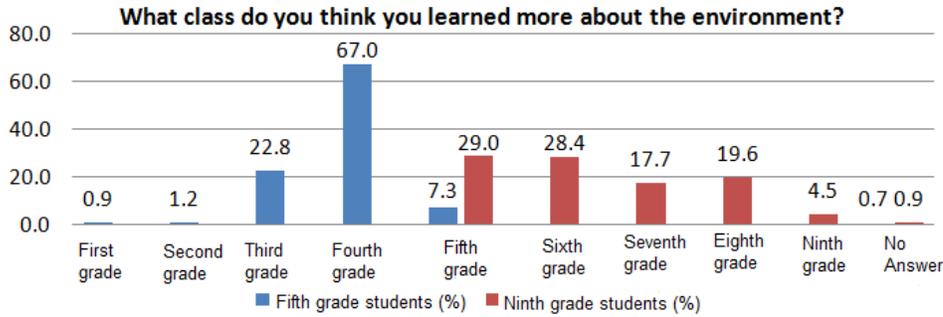
Among the most common environmental activities organized in school children is the celebration of environmental days (Environment Day, Earth Day, Water Day, Day without Cars, Day of Biodiversity), while green activities such as planting trees and flowers, outdoor excursions are listed the second. Among the most frequent activities, students list collecting trash and cleaning activities.

Do schools organize environmental activities?



Graph 2: Do schools organize environmental activities?

4) What class do you think you learned more about the environment? It resulted that 67 % of 5th grade students assessed that during 4th grade they have learned more about environmental topics. They’ve learned less during 1st and 2nd grade. The small percentage corresponding to the 5th grade (7.3 %) is related to the period of this assessment. The study is carried out during September-October 2015, when the school year was in the beginning; therefore students were not familiar with the full package of teaching topics of 5th grade. 9th grade students assessed that the 5th grade was the school year, when they got the most environmental information (29 %). The result for 9th grade is might be explained in a similar way as for the 5th grade (Graph 3).



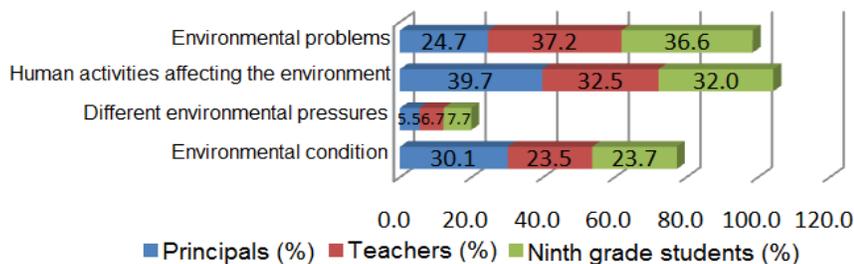
Graph 3: Which grade is the environmental information mostly received in?

5) Which subject has the most environmental information? Subjects "Biology and Health Education" and "Environmental Knowledge" are chosen by students in equal proportion (36%). These results match with the results obtained from the assessment of the student textbooks. It is followed by Geography and Albanian Language (4.5%), Our Community (4.3%) and Extra Curricular Activity (3.5%). Comparing to the obtained results from the textbooks' evaluation, it corresponds to Geography subject, but not to the other subjects. Social Education is chosen only by 2.8% of students, while the assessment of the respective student textbook ranks it as the fourth subject among the ones with the highest environmental concepts. We believe that these inconsistencies are related to subjective and objective reasons among which the most important are a) the way the teacher interprets the subject by adding or not emphasizing the information in the classroom and b) the preferences of students for specific subjects.

6) Which are the environmental topics discussed in the school? According to the feedback by principals, teachers and students of 9th grade, the referred topics are listed in graph 4. The most selected is "Human activities affecting the environment", followed by "Environmental problems", "Environmental condition" and the least one was "Environmental pressures". These results partially match with the ones obtained from the assessment of the student textbooks. "Environmental pressures" is the least referred topic, while "Environmental condition" is the most discussed one. We can explain this oscillation as an impact of subjective meaning of listed topics and the profiles of interviewed teachers.

Unanimously, 100% of the principals and teachers said that environmental education should be addressed in the education system.

The most treated environmental topics



Graph 4: The most treated environmental topics

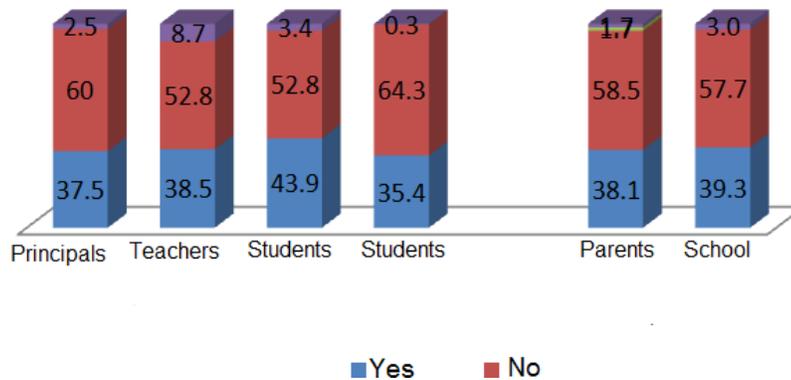
7) When and how environmental education will be introduced in schools? According to the interviewed teachers and principals, the best approach for environmental education is “as a subject”, “cross-curricular ” and “school project.” The least valued are the “Extra-curricular activity” and “Open activities organized by the school” approaches. The most appropriate student age is the preschool year, as well as in the first and third grade. The comparison with the textbook assessment data, it seems that teachers focus mainly on environmental education, while not connection or extension is made to sustainable development.

In this assessment study, the effort is made to evaluate the impact in behavior patterns. It is made through assessing children’s connection with nature³, and how much is recycling⁴ practiced in schools and families.

8) How much do children walk in nature? Students who live in urban areas prefer going out in nature with their families more than students in rural areas, where nature is part of their everyday life. More than half of students (55.8%) selected they “often” walk in nature, 10.3% of them answered “every day” and 28.7% “rarely”. Between the two groups (5th and 9th grade students) there are no significant changes in responses.

9) How much is recycling practiced in schools and families? The responses showed that separation of waste for recycling purposes is being practiced in schools and families. With no significant differences within individual groups, 57.7% of the interviewed individuals at school responded that they do recycle. 39.3% of them do not recycle. Similar data are received by the families, where 58.5% of interviewed parents answered that they do recycle and 38.1% of them do not recycle. Only 1.7% of parents are not informed about recycling (Graph 5).

How much is recycling practiced in schools and families?



Graph 5: How much is recycling practiced in schools and families.

³ We have evaluated that one of the main purposes of environmental education is to bring children closer to the environment, thus walks in nature were seen as a measurable potential indicator.

⁴ Recycling was chosen as one of the priorities of integrated waste management as an activity promoted in schools and considering the positive development of the recycling industry in recent years.

Conclusions

Teachers, principals, school students (5th and 9th grade) and parents analyzed in this evaluation, represent a community interested in environmental issues. Two major sources of obtaining environmental information are Television and Internet, but for younger students, the textbooks and school activities are remains the information sources. These data reinforces school's role in the formation and education of generations, in general and environmental education in particular. Besides many other opportunities, students themselves recognize and appreciate this role.

In schools, various environmental activities are held, primarily the celebration of environmental days and green activities such as tree planting. Most of these activities are organized in cooperation with local environmental nongovernmental organizations. Trash collection and cleaning activities are seen by schools as environmental activity.

The whole interviewed group of teachers and principals considers this education as very important pillar of the overall education, although more than half of them suffer from a lack of training on environmental education.

The main challenges teachers are facing in practicing this education include lack of resources, the over-loaded educational program, low priority compared to other subjects in the obligatory curricula.

It's obvious that there are numerous restrictions at the school infrastructure and educational programs related to outdoors learning process. This leads to loosening of children's connecting with nature and the environment in general, up to their apathy regarding environmental issues.

The best approaches for environmental education in schools are "as specific subject," "cross-curricular" and "school project". The most appropriate age is as early as possible.

Teachers, principals, students and parents included in the study support the development of environmental friendly behavioral patterns. Students often walk in nature, and schools and families in more than 50 % of cases recycle the waste.

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