

THE NEED FOR EDUCATION FOR SUSTAINABLE DEVELOPMENT IN ROMANIA

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Abstract:

Sustainable development is a new paradigm, specific to the 21st century, which must be a priority to all states, regardless of their level of development. Romania, as a member state of the UN and the EU, has taken important steps in assimilating the concept of sustainable development, by creating a Department of Sustainable Development and adopting a Strategy for Sustainable Development, by involving national and local authorities in various projects aimed at implementing sustainability in the Romanian economy and society.

In the university environment, sustainable development subjects are studied, both in bachelor's and master's programs, at some faculties, mainly those with an economic profile, and not only.

However, within pre-university education, with the exception of extracurricular activities or those within the "School Otherwise" program, of some isolated situations which aim at the participation of some schools in various projects related to sustainability, we cannot speak of remarkable achievements.

Through this approach, we aim to highlight the fact that students, as future adults, need to master certain concepts of sustainability in order to be able to identify them in everyday life, because without a sustained effort, there is the possibility of irreparable damage of living conditions and quality of life.

Key words: *sustainability, globalization, sustainable development, sustainable development goals*

JEL Classification: *F64, I25, Q01*

1. Introduction

The current economic evolution is unthinkable without the implementation of the global partnership for sustainable development. We live in a globalized world, so we cannot ignore what is happening across political borders. All efforts at different levels have the common goal of changing the direction of development in a positive sense.

The new vision that is taking shape regarding the future development of humanity starts from the need to ensure the health of the entire common living, made up of people, environment, institutions, communities, etc. as a premise of equal opportunities for present and future generations.

Sustainability, as a concept, was based on the idea that human activities are dependent on the environment and resources. Health, social security and economic stability of society are essential in defining the quality of life. Although this crisis was identified and responses were outlined to resolve the unfavorable environmental situation, it was concluded that economic development cannot be stopped, but that strategies must be changed so as to respect ecological limitations in the exploitation of the environment and resources. the planet. These conclusions resulted in the adoption of several conventions, related to climate change (reducing methane and carbon dioxide emissions), biological diversity (conserving species) and stopping massive deforestation.

Against the background of environmental problems, it relies on the possibility of the coexistence of economic development and ecological balance, elaborating a new concept as the foundation of innovative economic policies, namely eco-development.

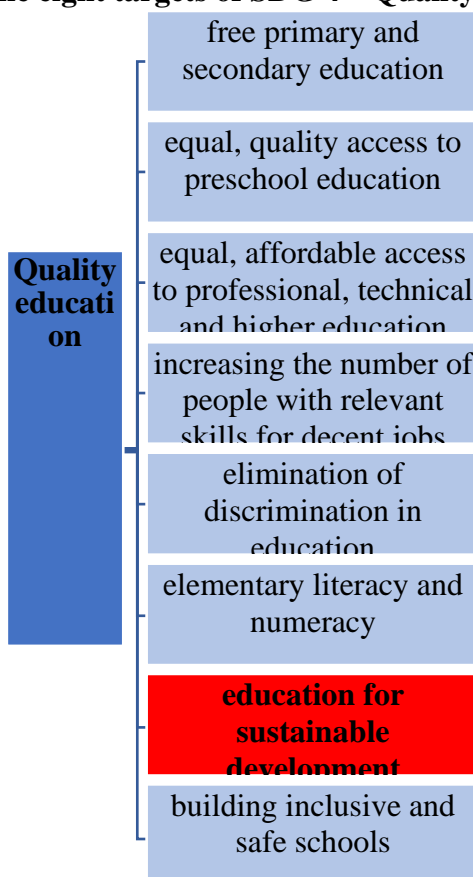
Quality education is a priority objective within the 2030 Agenda, being a fundamental theme because, in the perspective of 2030, ensuring an inclusive, equitable education and promoting lifelong learning opportunities must be a priority for all states.

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From scheme no. 1 it is noted that these targets target, in addition to free education, both primary and secondary, equal access for all girls and all boys to pre-school education, the possibility for everyone, regardless of age, to continue their studies.

The eight targets of SDG 4 – Quality education



Scheme no. 1

Source: Processing based on data provided by The global goals website, available at <https://www.globalgoals.org/goals/4-quality-education/> [accessed on November 14, 2022]

Target 7 of the 8 aims precisely at education for sustainable development and the promotion of a global citizenship, specific to the 21st century, with an emphasis on sustainable lifestyles, the promotion of peace and nonviolence, the appreciation of cultural identity and diversity.

By knowing all these aspects, today's students and tomorrow's future adults will be much better prepared to become global citizens who understand that the environment, economy and technologies can be compatible with man and his unlimited needs.

2. Education for sustainable development in Romania - access to quality training

Education is a process that prepares young generations for the challenges of the future, encouraging meritocracy, innovation, critical thinking, conduct and curiosity.

Young people around the world have the chance to acquire the knowledge, skills and attitudes needed to promote sustainable development and achieve the 17 Sustainable Development Goals. Therefore, education for sustainable development must be a lifelong learning process and an integral part of quality education.

Romania, as a member state of the UN and the European Union, has assumed the establishment of a national framework for the implementation of the 2030 Agenda for Sustainable Development, which includes the 17 Sustainable Development Goals, so it is necessary to take steps to introduce it into the curriculum national of a discipline aimed at sustainability.

At the level of Romania, some important achievements in the sustainable development chapter must be highlighted. Thus, starting in 2017, the Department for Sustainable Development was established, which operates within the working apparatus of the Government, subordinate to the Prime Minister, financed from the state budget through the budget of the General Secretariat of the Government. The Department's activity is aimed precisely at following the implementation of the 17 Sustainable Development Goals, emphasizing the planning and monitoring of sustainable development indicators.

The Department for Sustainable Development submitted, at the end of 2017, to the Ministry of Labor and Social Justice, respectively the Directorate for Employment Policies, Skills and Professional Mobility, a request to update the Classification of Romanian Occupations (COR) nomenclature for the introduction of the occupation "expert in sustainable development".

On February 22, 2018, the request received a favorable opinion from the Ministry of Labour. The occupation "sustainable development expert" has the code 242232 and is entered under Basic Group 2422 - Administrative policy specialists. Administrative policy specialists develop and analyze policies related to the design, implementation, and modification of government and commercial operations and programs.

Also, Romania, under the direct coordination of the Department for Sustainable Development, developed the National Strategy for the Sustainable Development of Romania 2030, adopted by the Government of Romania in the meeting of November 9, 2018, by GD no. 877/2018, published in the Official Gazette no. 985/21 November 2018.

According to the National Strategy for the Sustainable Development of Romania 2030, it is desired, on the horizon of 2030, to acquire the necessary knowledge and skills for all students, in order to promote sustainable development. At the same time, at the level of Romania, the introduction of sustainable development into formal university education is considered, as well as emphasizing the role of interdisciplinary research in the development of a sustainable society.

As for students, they discover certain information about sustainability in some subjects, such as Economics, Geography, Social Education, Entrepreneurship Education, etc.

The need to introduce the discipline of Education for Sustainable Development in the formal curriculum in Romania, the curriculum area Man and society, we consider that it is a priority if we want to convey to the young generations the idea of responsibility in the use of resources, to make them aware of the effects of their present actions, of the long-term implications of their actions, to know that sustainable development can have the effect of improving the standard of living, but without damaging the ecosystem of our planet.

Thus, the acquisition of knowledge for understanding the globalized world, the development of interdisciplinary understanding, critical thinking, but also the ability to act to respond to these challenges through global sustainable solutions is supported.

3. Metodology

The basic premise from which we started in this research was that in order to propose a series of recommendations and solutions for the integration of education for sustainable development in the school curriculum it is essential to highlight the importance of these concepts for the younger generations, so that they can make conceptual delimitations, make various connections with real life, etc.

In the research we've conducted, we've started from the question: *Do 10th grade students have knowledge about sustainability?*

The purpose of the study is to highlight the fact that Education for Sustainable Development should be found in the national curriculum, as a compulsory subject, because the high school students, mainly those of the 10th grade, where we conducted the research, do not have knowledge about development sustainable, although in the lower classes, in the school programs of subjects such as Geography, Entrepreneurial Education, Social Education, etc. certain aspects related to the issue of sustainability are addressed. The introduction of the discipline of Education for Sustainable Development, even in the School Decision Curriculum, would represent an important step for Romanian education.

The research was carried out with the participation of 30 students from the 10th grade E (Social Sciences – English bilingual) - Mircea cel Bătrân National College from Rm. Vâlcea.

In order to measure the level of knowledge of the 10th grade students about sustainability, we applied a questionnaire that contains several questions, from which we can deduce which concepts the research participants have substantiated, how familiar they are with the notion of sustainable development starting from the idea that during the previous school years, in certain subjects, the issue of sustainability was addressed. This tool aims to determine the global progress of knowledge about sustainability, so it was applied before and after the intervention.

The intervention was represented by an interactive lecture, a workshop - debate, based on a PowerPoint presentation. We chose this way of conveying the main ideas about sustainability because we wanted to stimulate the students to analyze the information and generate connections with the global reality.

Students were asked to specify the school subjects in which they learned about sustainable development, and the responses are illustrated in Figure no. 1.

In which subject/subjects in school did you learn about sustainable development?

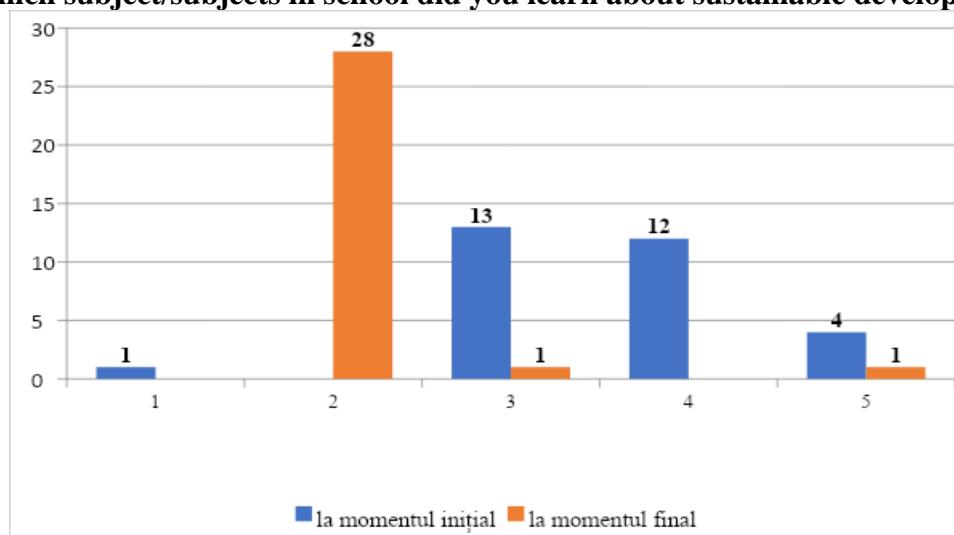


Figure no. 1

Source: made by the authors based on the processing of the answers obtained following the application of the questionnaire

If before the intervention, the students' knowledge about sustainable development was rather vague, as can be seen in figure 1, because only one student stated that he learned about sustainable development in Entrepreneurial Education, 13 of them do not remember which discipline this happened, and 12 of them answered that at none, after the intervention, i.e. the workshop-debate, things were completely different: 28 students mentioned that they learned

about sustainable development in the lecture and only 2 gave other answers, probably those who were less careful. This result highlights the fact that for the foundation of some notions of sustainability, it is necessary to introduce additional hours in which the students are as involved as possible in order to be aware of the complexity of the concept of sustainable development.

Have you participated/organized any event/action related to sustainable development issues ?

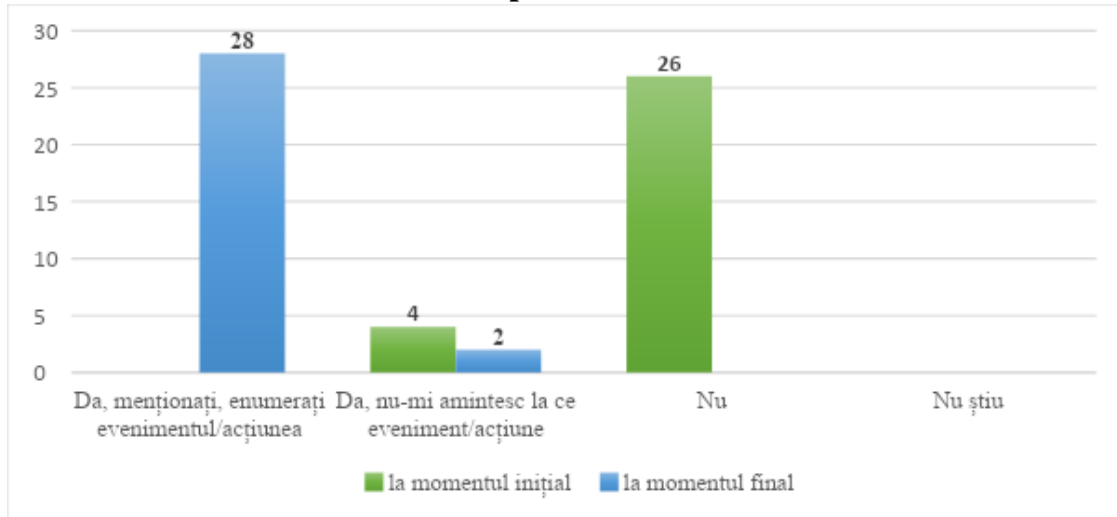


Figure no. 2

Source: made by the authors based on the processing of the answers obtained following the application of the questionnaire

One of the items (table no. 1) asked the respondents to express their opinion regarding the inclusion of some actions in the scope of sustainability. The opinion is characterized by the attributes: "total agreement", "agree", "indifferent", "disagree", "total disagreement". We quantified the answer variants as follows: "total agreement" = 5, "agree" = 4, "indifferent" = 3, "disagree" = 2, "total disagreement" = 1.

If you had to define the term sustainability, which of the following actions would you include?

Statement	Number of subjects									
	Initial application of the questionnaire					Final application of the questionnaire				
	5	4	3	2	1	5	4	3	2	1
1. contributes to the elimination of poverty and the reduction of economic inequality	13	12	1	4	0	13	16	0	1	0
2. allows the eradication of hunger, ensures food security	11	13	3	3	0	14	12	1	3	0
3. ensure healthy living and promote well-being for all	11	13	4	2	0	16	12	2	0	0
4. guarantee quality education and promote lifelong learning opportunities for all	13	14	2	1	0	23	5	1	1	0
5. promotes the achievement of gender equality	6	14	4	3	3	20	6	1	2	1
6. contributes to the supply of the population with clean, potable water	7	15	4	4	0	16	7	1	5	1
7. encourages renewable energy and innovation in the field	11	14	1	3	1	15	11	3	1	0
8. fosters sustained economic growth open to all	12	14	3	1	0	17	10	1	2	0
9. supports the building of resilient infrastructure and promotes sustainable industry	12	13	1	2	2	19	8	2	1	0

Statement	Number of subjects									
	Initial application of the questionnaire					Final application of the questionnaire				
	5	4	3	2	1	5	4	3	2	1
10.reduce inequalities within and between countries	11	12	7	0	0	22	5	1	1	1
11.guarantee an urbanization open to all, safe and sustainable	9	16	1	3	1	14	12	2	1	1
12.ensures conscious behavior and activities in accordance with the principles of environmental protection, both for the consumer and the producer	13	14	1	2	0	22	7	1	0	0
13.contributes to taking urgent measures to combat climate change	8	13	5	3	1	16	11	1	2	0
14.supports the conservation and sustainable use of the aquatic environment	7	17	2	3	1	12	13	4	1	0
15.supports the protection, restoration and promotion of sustainable use of terrestrial ecosystems	10	16	1	0	3	18	7	4	1	0
16.promote a peaceful and inclusive society	8	17	3	1	1	13	10	4	3	0
17.aims at the implementation of a global project whose common goal is to change the direction of development in a positive sense	10	13	4	3	0	18	11	1	0	0

Tabel no. 1

Source: made by the authors based on the processing of the answers obtained following the application of the questionnaire

Characterization of answers to the question If you had to define the term sustainability, which of the actions below would you include?

Statement	Statistical indicator					
	Initial application of the questionnaire			Final application of the questionnaire		
	Arithmetic mean	Standard deviation	Coefficient of variation (%)	Arithmetic mean	Standard deviation	Coefficient of variation (%)
1.	4,13	0,99	23,98	4,37	0,66	15,06
2.	4,07	0,93	22,83	4,23	0,92	21,72
3.	4,10	0,87	21,22	4,47	0,62	13,84
4.	4,30	0,74	17,14	4,67	0,70	14,98
5.	3,57	1,20	33,71	4,40	1,05	23,91
6.	3,57	1,20	33,71	4,07	1,24	30,41
7.	4,03	1,05	25,99	4,33	0,79	18,20
8.	4,23	0,76	17,97	4,40	0,84	19,11
9.	4,03	1,14	28,26	4,50	0,76	16,97
10.	4,13	0,76	18,46	4,53	0,96	21,11
11.	3,97	1,02	25,61	4,23	0,96	22,56
12.	4,27	0,81	19,07	4,70	0,53	11,19
13.	3,80	1,05	27,52	4,37	0,84	19,14
14.	3,87	0,99	25,63	4,20	0,79	18,85
15.	4,00	1,13	28,14	4,40	0,84	19,11
16.	4,00	0,89	22,36	4,10	0,98	23,86
17.	4,00	0,93	23,27	4,57	0,56	12,24

Tabel no. 2

Source: made by the authors based on the processing of the answers obtained following the application of the questionnaire

At the first application of the questionnaire, few or even very few respondents expressed their disagreement or total disagreement with the actions, with only one exception 5. promotes the achievement of gender equality, for which 3 students opted for these answer options. Also, for most of the statements, the answers are focused on the attributes "total agreement" and "agree", and the frequencies corresponding to these variants do not differ much between them. For the other statements, the answers are polarized according to "agree",

for "total agreement" the number of options is smaller. The actions with a small number of "total agreement" options are: 5. promotes the achievement of gender equality (6), 6. contributes to the supply of the population with clean, potable water (7), 14. supports the conservation and sustainable use of the aquatic environment (7).

In the second application of the questionnaire, the number of respondents who pronounced themselves with the attributes "disagree" or "totally disagree" with the statements is even lower, with few exceptions. At the same time, the concentration of answers on the attributes "total agreement" and "agree" has increased, the frequencies corresponding to the first option being higher than in the first application of the questionnaire, with one exception 1. contributes to the elimination of poverty and the reduction of economic inequality, to which these frequencies are equal (13). For four statements, the polarization of answers on "total agreement" is more pronounced: 4. guarantees a quality education and promotes lifelong learning opportunities for all (23), 5. promotes the achievement of gender equality (20), 10. diminishes inequalities within and between countries (22), 12. ensures conscious behavior and activities in accordance with the principles of environmental protection, both for the consumer and for the producer (22). From these results, it can be seen that our intervention was effective and shows that a discipline of Education for Sustainable Development would represent a plus in the development of knowledge, skills and attitudes of the new generation.

The analysis of the responses to this item is also highlighted in Table 2. At the initial administration of the questionnaire, the average score took values around the number 4 for almost all actions, which translates into agreement regarding the inclusion of the actions in the scope of sustainability. Only for the statements 5. promotes the achievement of gender equality and 6. contributes to the supply of the population with clean, potable water, a lower average score of 3.57 is obtained. The degree of dispersion of scores from the mean score (standard deviation) is relatively small for all actions (around the number 1, more precisely between 0.74 and 1.20). Moreover, the coefficient of variation takes small values (between 17.14% and 33.71%), below the threshold of 35%, which is why the averages are representative for all actions.

At the final administration of the questionnaire, the average score shows increases compared to the initial administration for all statements. Thus, all values of this score are greater than 4 and more than half of them are around the number 4.50. For four statements, the average scores exceed the value of 4.50: 10. reduces inequalities within and between countries (4.53), 17. aims to implement a global project whose common goal is to change the direction of development in a positive sense (4.57), 4. guarantees quality education and promotes lifelong learning opportunities for all (4.67) and 12. ensures conscious behavior and activities in accordance with the principles of environmental protection, both for the consumer and for the manufacturer (4.70). The results after the intervention are remarkable and show that the students understood that sustainable development is a global process with implications at the level of each country.

The divergence of opinions is relatively low, decreasing compared to the previous application of the questionnaire, with a few exceptions. Thus, only for two actions does the standard deviation exceed the value of 1. At the same time, the coefficient of variation has low values, for many statements lower than at the initial administration. These values are below the 35% threshold, which is why all stock averages are representative.

4. Conclusions

The purpose and objectives of this paper aim to highlight the fact that Education for Sustainable Development should be found in the national curriculum, as a compulsory subject, because students in the first high school classes do not have knowledge about sustainability, although both in the primary classes, but especially in secondary school, in certain subjects such as Geography, Social Education and Entrepreneurial Education, issues related to sustainable development are addressed.

We consider that our meetings with the students of the Xth grade E - Mircea cel Bătrân National College from Rm. Vâlcea were a win, we liked to discover a young, well-informed generation, and the introduction of a discipline such as Education for Sustainable Development would be a plus, both for them and for the local community, because it is clear that young people understand and are open to all the challenges of today's global society.

According to the European Commission, students of all ages need opportunities to develop their knowledge, skills and attitudes to live sustainably, adopt a healthy lifestyle and contribute to the ecological transition. Acquiring sustainability skills can help new generations understand global environmental challenges and climate change, reflect on their behavior and engage in activities for a sustainable future.

At the beginning of this year, the EU Council received the proposal from the European Commission to recommend the 27 EU member states to take steps to implement education for sustainability. Because education for sustainable development is important at any age, a reference framework for the development of sustainability skills has been created at the EU level. GreenComp is designed to support education and training programs for lifelong learning. It targets all learners, regardless of their age and level of education and in any learning setting - formal, non-formal and informal.

And then, starting from the EU recommendations, shouldn't Romania act to implement these competences aimed at sustainability?

After this workshop-debate and the extremely pleasant meeting with the students of the 10th grade E of the Mircea cel Bătrân National College from the Rm. Vâlcea, I realized that the goal of our research has been achieved. Even if only at the micro level, the results were seen and they are also highlighted by the progress noted after the application of the final questionnaire.

We are convinced that all the discussed aspects, as well as the awareness of various issues related to sustainability and their identification in real life, will be a plus for the students of this class.

In the era of globalization, digitization, any education system must, sometimes even with small steps, adapt to current changes. Just as no country in the world can self-sufficiently develop, the same is the case with the beneficiaries of the educational systems, namely the students and their families.

Education for Sustainable Development must be a priority for education in Romania.

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