Education for Sustainable Development in the Romanian Geographical School Education

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Abstract

As a rigorous, scientific discipline, geography is at the intersection of the human, physical and economical aspects of our world and it is in the unique position to educate learners about the complex and interdependent relationships between these spheres, their spatial distribution and temporal evolution. This recommends school geography as the promoter of education for sustainable development.

The current research study focuses on Education for Sustainable Development (ESD) through the medium of the geography curricula in the Romanian education system. Analysing curriculum documents we aim to evaluate the extent to which ESD represents a formal educational aim. The semi-structured questionnaires we applied to geography teachers and Year 11 students (17 years old) from different counties in Romania help us gauge the perception and interest they have regarding ESD.

The study relies on the fact that the Romanian Department for Sustainable Development sees ESD as a key instrument for reaching the sustainable development goals and considers SD to be 'a paradigm based on ethics and education'. The mentioned document sets as target for 2030 to ensure that 'all students gain knowledge and abilities needed to promote sustainable development'. To this effect, we analyse the tasks proposed in Geography textbooks to evaluate the extent in which they promote skills and competencies which support education for sustainable development.

Keywords: *education for sustainable development, geography curriculum, Romanian, geographical education, geography textbooks.*

1. Education for Sustainable Development – Context

Most studies in the field attribute the beginning of the concept Sustainable Development (SD) to the Brundtland Report in 1987 [1] where it is represented as 'the development which ensures that it meets the needs of the present without compromising the ability of future generations to meet their own needs.' Since then, there have been several other milestones, of which we mention Agenda 21 in 1992 which identifies education as one of the most important vehicles for achieving SD, the Millennium Goals, the 2005-1014 Decade of Education for Sustainable Development which aimed at integrating the principles, values and practices of SD into learning and education. In 2015, Agenda 2030 reveals 17 revised Sustainable Development Goals (SDGs) and quality education figures as a distinctive one.

Romania adhered to Agenda 2030 and established its national strategy for SD in which it offers contextualized information regarding the steps already made towards achieving each SDG and the actions for further work on reaching the goals. Education appears as a general concept in this document, but only in vague terms regarding the need to improve the education system or linked with raising awareness on climate change. The Romanian Ministry of Education website dedicates a page to Education for Sustainable Development (ESD) in which there is a brief history of the concept and a mention that 'education for sustainable development is done across the formal curriculum in the school system […] and in the extracurricular activities'. Though a cross curricular approach is appropriate for ESD, we think that the lack of clear guidance and a specific framework for integrating ESD in the curriculum creates the conditions of neglect towards ESD or, at best, a patchy and uncoordinated effort towards achieving SD through education.

1.1 ESD and Geography

The research literature is abundant in promoting Geography as a vehicle for ESD in schools, not least because it highlights the current and relevant role geography plays in our children's education. In 2016, the International Charter on Geographical Education [2] underlines the role of geography as a 'vital subject and resource for 21st century citizens, enabling us to face questions of what it means to live sustainably.'

Situated at the crossroads between the environmental, the economic and the social spheres of human existence, and given its capacity to identify and project future inter-relationships between these spheres, geography is a fundamental discipline for ESD [3]. The SDGs, in their turn, have complex environmental, economic and social facets and their teaching needs the systemic approach a modern and relevant geographical education could offer. Geography aims at 'understanding the world in a holistic manner' [4]; its transdisciplinary knowledge and its systemic approach promote it as a key school discipline to help ESD [5]. Teaching about the SDGs through geography would help learners understand and relate to the dependencies between people and their environment, the processes and the systems which define this relationship from a personal and local perspective to a global one. Furthermore, it would give geography relevance, importance and agency.
There have been concerns amongst geographers that the traditional approach of geographical education based almost exclusively on location and space has brought about a limited understanding of this subject and has endangered its very existence in schools or has placed it at the periphery of the timetable, with an ever-reduced number of allocated lessons. In Romania, there have been clear attempts to reduce and eventually squeeze out geography from the curriculum for some year groups.

2. Our study

2.1 Methodology

The aim of this research is to see how the geography textbooks present the issues related to the SDGs and the learning tasks and to gather the views of teachers and learners regarding the themes of SD in their textbooks. We chose the only two Year 11 textbooks endorsed by the Ministry of Education, dedicated to 17 years old learners as they are assigned to deal with: 'The Fundamental Problems of Our Contemporary World'.
Content analysis was chosen as a research technique to code, infer and draw conclusions following a 'systematic reduction […] of text to a standard set of statistically manipulable symbols representing the presence, the intensity or the frequency of some characteristics' relevant to our study [6]. We used paragraph thematic coding; the main codes being related to the 17 SDGs. While coding, it became apparent that we needed another category for the information which presented the idea of SD in a general manner.
The learning tasks in the textbooks were categorised using an adapted Bloom taxonomy to establish the level of difficulty in the thinking skills they required. Pluralism is a keyword in education for sustainable development [7, 8] and this is not only about allowing learners to express their opinions freely, but it is also about creating learning opportunities in which different perspectives are developed. So, the learning tasks analysis helped us assess whether these opportunities exist.
Apart from this, we applied semi-structured questionnaires to 39 geography teachers and 487 Year 11 learners.

2.2 Our findings

The two textbooks, comparable in size, were analysed separately, but we also combined the data obtained. Fig. 1 highlights that certain themes, traditionally linked with geography dominate, whereas other topics barely seem to figure. Gender equality may be better suited for other school subjects, but the weak representation of the theme of 'Clean water and sanitation' or 'No Poverty', for example, raises some questions.

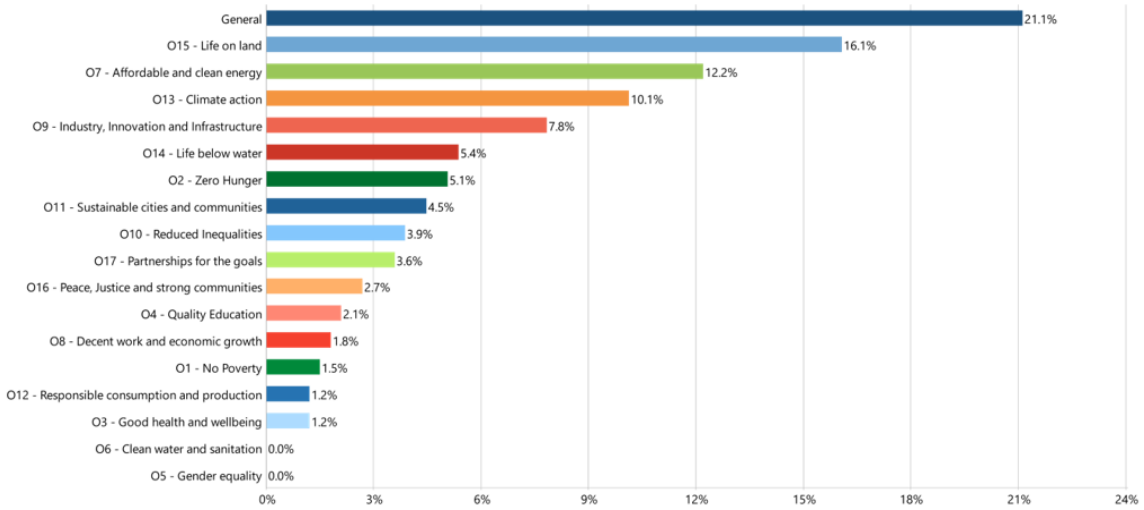

Fig. 1 – Content analysis on the two textbooks combined

Our study also looked at the coverage of the SD themes in the textbooks calculated by their length/space occupied. Largely, there seems to be the same distribution as the graph above shows, apart from Zero Hunger (SDG 2) which is not often identified in the textbooks, but the paragraphs in which it is are more developed compared with others.
Other findings relate to the very limited space dedicated explicitly to SD. Also, most of the information is pre-requisite information related to these themes, rather than explicit reference to them. There is no explicit reference to the SDGs and Agenda 2030.
As regards the analysis of the learning tasks (Fig. 2), we identified the same traditional approach focused on the lower order thinking skills of knowledge and understanding. Thus, the dominant tasks are recall and most take the form of open-ended questions with answers readily available in the text, but there are also fill in the gaps and multiple-choice exercises. Both textbooks allow for essay writing, but Textbook A offers considerably more opportunities for this than Textbook B. Both textbooks have end of chapter summative evaluation tests, but Textbook B has far more tasks incorporated within each lesson, nearly 10 times more, than Textbook A. Textbook A focused 69,2% of the learning tasks in end of chapter tests, whereas Textbook B only 29,3%, distributing the rest in lessons.

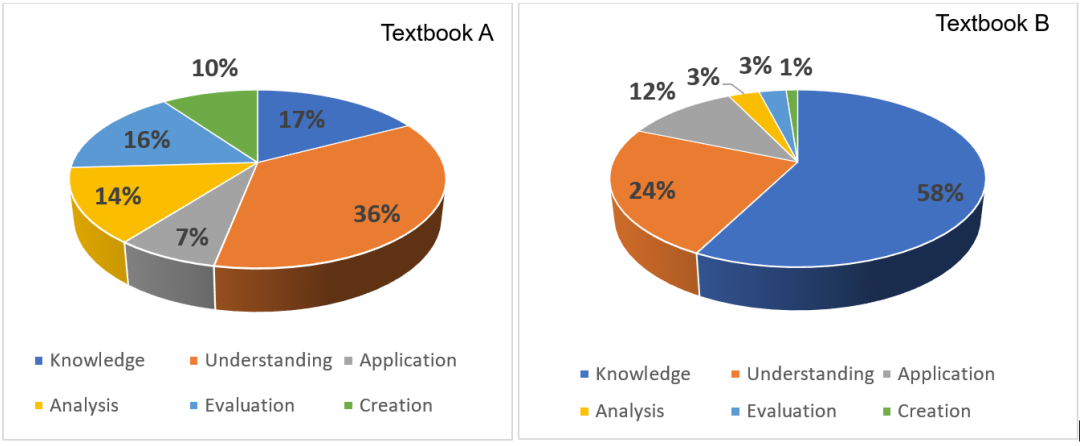

Fig. 2 Textbook analysis of the learning tasks using Bloom's taxonomy

The semi-structured questionnaires offered a valuable insight into the views of teachers and learners regarding the themes of SD. As Fig. 3 shows, both categories believe that geography is the most suitable subject for teaching SD, but their opinions diverge regarding Personal Development. We propose that learners view some themes related to SD close to their overall development; they view them in a more integrated approach, whereas teachers may view them in a more theoretical, scientifical approach.

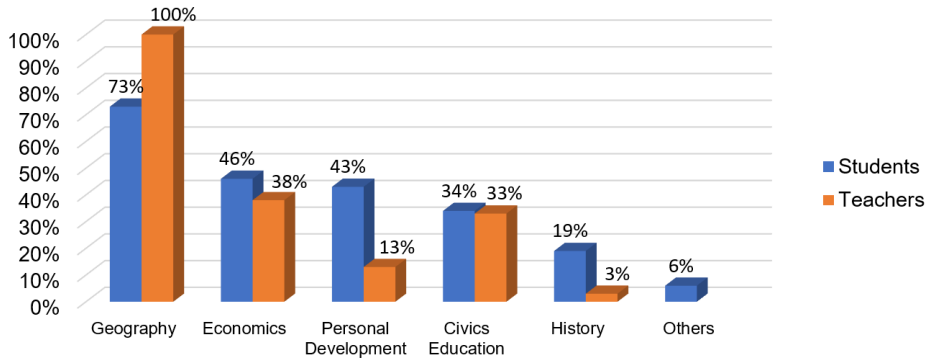

Fig. 3 – The most suitable school subjects for teaching SD

Of particular importance in our study are the themes identified by teachers and learners as being of immediate relevance to them. Thus, in Fig. 4 we notice that 'Good health and wellbeing' and 'Access to Education' (SDG 3 and 4) are of significant importance for both categories, but from here on interests seem to diverge. Learners are interested in themes with direct, immediate impact on a personal level: wellbeing, water, food, social justice, whereas for teachers we notice again the emergence of themes with a stronger traditional geographical background. Another potential hypothesis is that the themes such as 'Action on Climate' or 'Alternative sources of energy' may have reached a saturation point with learners, as they are being bombarded with excessive information on these topics.

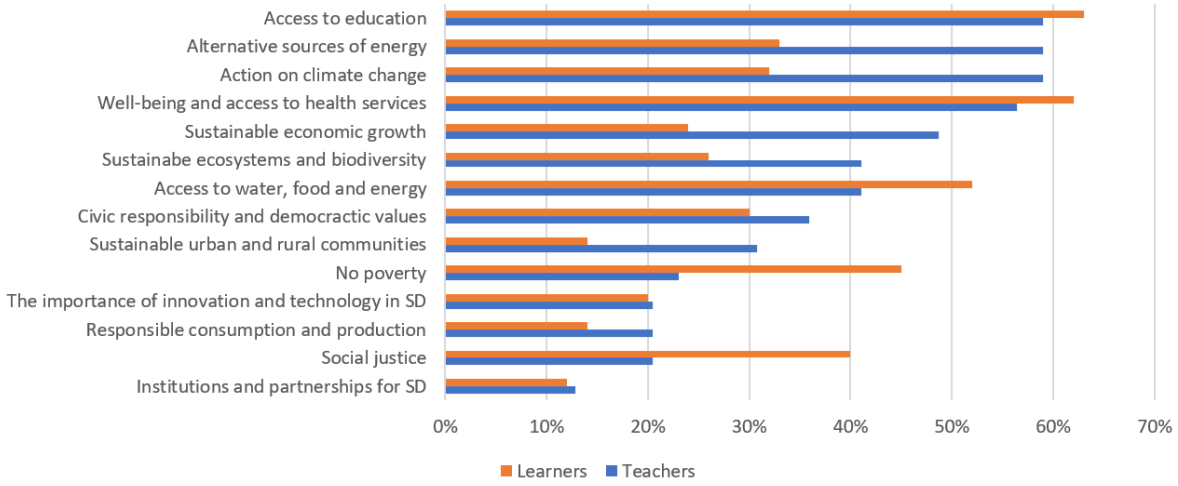

Fig. 4 SD topics important to learners and teachers

When we return to the content analysis for the two textbooks (Fig. 1), we realise that the themes of relevance to learners are the least represented in the textbooks, whereas those of interest for teachers are better represented. The traditional approach to geography and the predominance of physical geography elements in the Romanian curricuriculum stands out again.

3. Conclusions

Our analysis of the two textbooks shows that the Romanian school geographical education does not offer opportunities for a current, modern approach to ESD. The analysis of the 17 SDGs helped us create a hierarchy regarding their presence in the textbooks which does not correspond with the hierarchy regarding their importance in learners' and teachers' views. It is encouraging to see, however, that geography is seen by both categories as the main vehicle for ESD. The differences in learning tasks highlight that though knowledge and understanding dominate both textbooks, there are significant differences regarding their ratio to other thinking skills in the two separate textbooks.

Having undergone through various reforms, Romania's school geographical education is still in need of an integrative approach to ESD so that it reaches its aims in educating our young, shows its relevance and true agency.

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