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from the Perspective of the Social, Environmental and Scientific Education²

Extended summary

Overconsumption is the root of almost all environmental issues, while modern generations already live at the expense of the future ones. The opportunities and the necessity of tackling the effects of consumerism on the environment in the instruction of a particular school subject were evident from the definition of sustainable development and the educational concept arising from it. They encompass the concepts such as: environment-imposed limitations, satisfaction of human needs (the stress here is on the needs, rather than wants) and intergenerational responsibility. The potential and the need for tackling these issues in teaching as a means of preparing the children and the youth for a key role in a sustainable society, the role of "sustainable" consumers, was based on the following assumptions: 1) if environmental issues are mostly the consequence of consumerism, then their solution may lie in a different system of knowledge and values, as well as in a changed behaviour of people as individual consumers; 2) education is one of the crucial factors in the realisation of this goal.

Several problems had to be addressed to determine the quality of the approach to this topic and provide the guidelines for the improvement of Social, Environmental and Scientific Education (SESE) instruction. First, the specificities of all components of sustainable development were identified, to make sure that they are reflected in a particular research problem which is only a segment of the complex educational concept based on sustainability. In addition, by analysing the environmental rules and the consequences of the depletion of natural resources, as well as the characteristics of consumption and the mechanisms underlying the consumers' motivation and behaviour, a scheme of the key issues that should be addressed in

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education was developed. The next step included the analysis of the potential of the school subjects World around us and SESE for the development of the competencies for sustainable living, and the adaptation of the selected objectives to match the characteristics of the subject. Lastly, the cognitive theories underpinning the modern concept of teaching and learning served as a proof that the selected requirements were suitable for the children age 7-11, as well as confirmation that a (holistic) approach to this matter within the school subject of SESE can contribute to the overall development of children.

The theoretical and in-depth analysis of the topic resulted in the definition of the key competencies relevant for the area of causality between consumerism and the environment which can and should be developed through SESE instruction. The competencies were identified and listed under four separate categories: 1) dependency of human beings upon the nature; 2) environmental issues and their consequences; 3) causes or the relationship between consumption and environmental issues; and 4) measures related to consumer behaviour that could solve or prevent environmental issues. The system is firmly structured, contains interconnected concepts with causal, horizontal and vertical relations. Interdisciplinary and holistic approaches are reflected in the system, as well as the intention to address different aspects of the children's personalities.

The defined framework served as a starting point for the evaluation of the quality of the current approach to the effects of consumerism on the environment in teaching SESE, and for creating the guidelines for its improvement. This paper is a report on the part of a wider research which included testing the knowledge of the pupils at the end of the first cycle of compulsory education in Serbia. The respondents demonstrated a selective knowledge of the facts and difficulties in understanding the the causality between consumerism and environmental issues, as well as a limited ability to apply the acquired knowledge. The identified problem reflects the quality of the SESE curriculum, and the quality of teaching in terms of the teachers' competencies to teach the topic. The test results confirmed indirectly the other results obtained in a wider research which included the curricula and primary school teachers. In terms of their functionality, the SESE curricula neither fully correspond to the complex objectives pertaining to the topic of this paper, nor are they appropriate for the potential of the school subject in that context. In addition, primary school teachers are not fully competent to convey the above mentioned relevant types of knowledge to their pupils. We offer two solutions to the problem. First, the curricula must be improved in terms of topicality, more systematically structured demands, and a greater focus on the development of the relevant competencies. On the other hand, the proposed curricula modifications would be ineffective without an appropriate teacher training, including: 1) more intensive and better inclusion of the topics and objectives of education for sustainable development in the study programmes of teacher education faculties in Serbia; 2) organisation of seminars for in-service primary school teachers. The aim of the proposals presented in this paper is to contribute to such a reform. The most important proposal is the one concerning the model of a holistic approach to causality between consumerism and environmental issues in the subject Social, Environmental and Scientific Education. The model is presented in the form of a defined framework of the key competencies which are explained in detail and incorporated in a system. It also takes into consideration the approach to the study of this topic, age-specific characteristics of pupils and the specificities of the school subject. The objectives which include mastering the relevant concept systems and developing the pupils' awareness to enable them to accept responsible and sustainable consumption are also important for their overall development. These objectives have a cognitive and functional value, and they are grounded in ethics. These are the values inherent to education for sustainable development which should be included in the reform of the SESE curriculum.

Key words: education for sustainable development, Social, Environmental and Scientific Education, consumerism, environmental issues.

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