

## Review

For a dissertation titled "Formation of Ecological Culture through Teaching the Subject 'Man and Nature' in the Primary Stage of Basic Education" in a competition for the award of the educational and scientific degree "Doctor" in professional field 1.2 Pedagogy ("Theory of Education and Didactics").

Author: PhD student Galina Petrova Vasileva

Reviewer: Prof. Doctor of Pedagogical Sciences Yanka Dinkova Merdzhanova, Department of Didactics, Faculty of Education, Sofia University "St. Kliment Ohridski"

*Substantive evaluation of the topic and the significance of the work:* Extremely topical issues for teaching in primary education in the direction of cultural formation for an area of social life that is sensitive and critical for all humanity - its interaction with the natural environment. Against the background of the dynamics in the development of scientific knowledge; of the integrative tendencies both at the content and at the teaching activity level such as binary and open learning sessions; of the synchronization internationally at all levels - practice, its resourcing, innovation for curricular content, pedagogical competency, normative compliance and guidance of these divergent processes - against all this background, it is a tribute to the PhD student that she has tried to cover this scale of the problem area and at the same time to concentrate on the didactic-methodological formative level in the teaching of "Man and Nature" in Bulgarian schools.

### *Dissertation Achievements:*

1. Optimal volume with very rich sources. The 3 separate parts are balanced and correspond to a balanced concentration on the significant, according to the author, for the topic problems: the First: Conceptual formulations for the challenge Man Nature Ecology; the Second: Formation of EC in the primary school stage; the Third: Analysis of the results of experimental training.
2. At the end of the relevant paragraphs the author gives the definitions of the main concepts in her work, which she takes as working: ecology, ecological culture, ecological consciousness, ecological ethics. It is a conscious and purposeful attempt of the author to realize research according to these definitions. The author justifies his reference to one definition or another.
3. Object, subject, aim and tasks are concisely and coherently defined. The research questions and hypotheses are problematic and searching, guiding the procedure of theoretical-empirical tests.
4. Part I of the work corresponds to the scale and significance of the Man-Nature interaction, with Vasileva drawing on thinkers with broad philosophical and social views. Undeniable avant-garde authors in this field are used. The evolution of Man-Nature relations in the context of ecological knowledge, the concept of the noosphere, harmony and the role of ecological consciousness, ethics and culture.

5. In general, the PhD student refers to prominent Bulgarian authors in the relevant parts of the issues - ecological culture, teaching 1-4 grade in this perimeter, choosing which theses and definitions to accept as working. Both theoretical and methodological works and a set of proceedings of scientific conferences are used. Obviously, the work is aimed at contributions at the practical-applied level.

6. An Educational Concept for the Study of Man and Nature is competently presented in the second part of the work.

7. A difficult and largely successful attempt has been made to capture and present for the needs of the research the very complicated and complex field of modeling in education, in pedagogy, as a consequence - models of learning, in learning, models of educational space, model of education...

8. On this basis, a "Contemporary Technological Model for teaching the subject of "Man and Nature" is proposed in Part II. It simultaneously points to the experience and the rich practical work done, and on the other hand, it is based on the general pedagogical principles and the beginnings of modern education, which are identified by the doctoral student as the methodological foundations of the model. Regardless of the notes that can be made, the experience and the Model are in themselves an achievement of the thesis.

9. The author's language and style are sustained in the parts related to ecological concepts and the concreteness of the study of "Man and Nature".

10. The research is emphasized authentic and authorial, carried out within 1 school year, with Experimental and Control Groups of 23 students each. It is permeated with professional commitment and dedication. Part Three presents the analysis of the results; realistically and richly illustrated by product evidence in the appendices to the study.

*Critical notes – such as perspectives and recommendations:*

**1.** Even better to define the **criteria, indicators and indicators for classifying activities**. Much has been done, but in the extremely activity-rich open field of modern education, these refinement processes are also open and upcoming to the colleague. I am convinced that he will continue in this direction both as a theorist and as a practising teacher.

**2.** The educational concept and structure of EC can also be further developed according to the latest theoretical, and normative trends - value and competence formation. I wish that in future they become the main focus of the work.

**3.** The principles of the Model can be enriched and extended in terms of argumentation and depth of interpretation. The components themselves in the Model of p. 103 and their constituents can be further examined (e.g., "planning and implementing actions" is at the cognitive level, while there is also an activity level).

**4. The interdisciplinary focus**, inter-subject relations, team extracurricular and out-of-school activities and forms of work can also be better highlighted as a specificity of the model and its principle features, especially since on a practical level they are a fact in the author's work.

5. The analysis of the experimental results can be better organized and systematized, and also enriched - even more prospectively and strategically oriented, in order to highlight the really valuable recommendations and suggestions to all colleagues of Galina Vasileva in the Bulgarian primary school.

The scientific contributions of the thesis are indisputable and are correctly defined by the PhD student. I accept them.

*The dissertation presents a very rich and authentic professional experience of doctoral student Galina Vasileva, which is highly valued in today's pedagogical research.*

**CONCLUSION:** Due to all the above considerations and compliance of the procedure of the ZRASRB and the candidate to the national science metric requirements, **I give the well-deserved high evaluation** to the clarity and precise **logical construction of the work and the research direction** - Ecological Culture / Environmental Education / The Little Student / The Subject of Man and Nature / Model of Learning / Experimentation ( assigned in the process of competent scientific guidance). **I confidently propose** awarding the educational and scientific degree "Doctor" to Galina Petrova Vasileva in professional field 1.2. Pedagogy ("Theory of Education and Didactics").

10<sup>th</sup> of March 2025

Sofia

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