

OPINION

Regarding: the dissertation of Irina Borislavova Slavova Professional field 1.3. Pedagogy of training in technology and technology Doctoral program: Methodology of teaching in technology and technology Scientific field: 1. Pedagogical sciences Title of the dissertation: *“A Model for the Ecologization of the Curriculum in Technologies and Entrepreneurship”* Scientific supervisor: Prof. Margarita Kirilova Boneva, D.Sc. (Econ.) Author of the opinion: Assoc. Prof. Diana Stoycheva Mitova, PhD Faculty of Engineering, South-West University “Neofit Rilski” – Blagoevgrad

1. Compliance of the procedure with the regulatory framework

This opinion has been prepared in execution of Order No. RD-16-005 / 26.01.2026 of the Rector of Shumen University “Episkop Konstantin Preslavski”, for participation in the scientific jury for the defense procedure of the dissertation developed by Irina Borislavova Slavova, entitled *“A Model for the Ecologization of the Curriculum in Technologies and Entrepreneurship”*. All required documents for the defense have been submitted: dissertation, abstract, publications, contribution statement, declaration of authorship, and a report on meeting the national minimum requirements. They comply with the current regulatory framework.

2. General presentation of the doctoral candidate

Irina Borislavova Slavova obtained her Bachelor’s and Master’s degrees in *Social Activities* at Shumen University “Episkop Konstantin Preslavski”. Her professional experience is predominantly administrative. Since 2021 she has been enrolled as a full-time doctoral student at the Faculty of Education of the same university and was granted the right to defend in 2024.

3. Characteristics and evaluation of the dissertation

3.1. Assessment of relevance and theoretical justification

The issue of global environmental problems and the need to introduce ecological content into school curricula is highly relevant today. In the present dissertation, however, this problem is addressed rather superficially. The theoretical review lacks an in-depth analysis and systematization of key contemporary studies on integrating environmental education into technological training. The emphasis is placed on introducing numerous ecological concepts

(such as environmental education, ecological literacy, ecological culture, ecological worldview, etc.) without providing substantive interpretation aligned with the topic of the dissertation.

3.2. Assessment of structure and volume

The dissertation consists of 200 pages and formally follows the classical structure: introduction, three chapters, conclusion, contributions, appendices (questionnaire on ecological literacy; glossary of ecological terms; one table; and a bibliography of 152 sources). Despite this, several significant issues are identified. The content analysis reveals a serious imbalance between the theoretical and empirical parts.

- **Chapter 1**, “*Ecologization of the Curriculum – Essence and Significance*”, is overly descriptive regarding the analyzed scientific concepts and authorial works, without offering a critical analysis of the current state of the problem. Citations are not used correctly: multiple sources (three to five) are listed consecutively (pp. 12, 21, 23, 26, etc.) without page numbers, making it unclear which author is actually being cited. Much of the text, especially the terminology, consists of general definitions of ecological concepts with an informative rather than analytical character. Logical coherence between paragraphs is lacking, creating a fragmented impression.

- **Chapter 2**, “*Entrepreneurship – Essence and Significance*”, presents general theoretical statements analyzed outside the context of the research thesis. It is unclear why concepts such as “internal and consulting entrepreneurship”, “expert, process and training consulting” (pp. 56–58) are examined. Later, in paragraph III.1 (p. 69), the author again returns to entrepreneurship as a key competence in EU countries, analyzing European Commission documents—content that is outside the topic and unnecessarily burdens the main text.

- **Chapter 3** includes a detailed analysis of the subject *Technologies and Entrepreneurship* as part of school education, but without focusing on the problem of ecologization. The description of curriculum content across grades 1–7 leads to unnecessary reproduction of curricula, textbooks, and teaching aids (pp. 88–135), occupying a large portion of the dissertation. Paragraph III.2, “*Recommendations for the Curriculum in Technologies and Entrepreneurship*”, is outside the scope of the research problem. Some factual inaccuracies are also found, such as the statement on p. 67: “Classes in Technologies and Entrepreneurship begin in first grade and continue until the end of lower secondary education...”, which is incorrect because the subject is compulsory in the first stage of upper secondary education (grades 8 and 9).

- **Chapter 4**, “*Ecologization of the Curriculum in Technologies and Entrepreneurship*”, again analyzes the goals and competence areas of technological education

in theoretical terms. The connection with ecologization and the introduction of ecological concepts through the content cores of technological training is insufficiently justified.

3.3. Assessment of the research methodology

The empirical study is limited in scope, with an inadequately justified sample (a survey among 59 teachers in primary and lower secondary education, all from the city of Shumen). Only 22 of them teach *Technologies and Entrepreneurship*. The survey reveals deficits in teachers' ecological literacy (e.g., only 25.4% know the term "ecological crisis"), yet the author does not propose an adequate methodology to address this deficit through the model. Methodological competence is insufficiently demonstrated in defining the object, subject, aim, tasks, and hypothesis, as well as in interpreting the results (p. 8). The hypothesis is inaccurately formulated by stating that "ecologization... is a guarantee for forming ecological culture", which cannot be empirically tested as it is a normative requirement. The conclusions do not follow directly from the results. The chosen methodology does not prove the effectiveness of the proposed model.

3.4. Evaluation of publications and abstract

Three publications are listed, meeting the scientometric indicators required under Art. 2b, para. 2 of the Law on the Development of Academic Staff in the Republic of Bulgaria and its regulations. In my view, the publications do not overlap substantively with the topic of ecologizing the curriculum in *Technologies and Entrepreneurship*. The abstract reflects the essential information from the dissertation.

No similarity or plagiarism with other works is detected.

3.5. Personal impressions

I have no personal impressions of the doctoral candidate's work.

3.6. Evaluation of scientific and applied contributions

- ⇒ The theoretical justification consists mainly of descriptive reviews of normative documents and general theoretical statements, without critical analysis of the current state of the problem.
- ⇒ The developed "Model for Ecologization of the Curriculum in *Technologies and Entrepreneurship*" (p. 139) lacks the necessary scientific and theoretical justification. It is not presented through a clear structural-functional scheme or mechanisms for implementation in pedagogical practice.

- ⇒ The Program for Ecologization of the Curriculum does not contain clear indicators of effectiveness or evidence of sustainability of the proposed pedagogical technology.
- ⇒ The quantitative and qualitative analysis of the results does not demonstrate that the developed model is practically applicable or proven effective.

CONCLUSION

At this stage, the dissertation is not in a completed form and requires supplementation and restructuring. No innovative or significant contributions are evident, either theoretically or practically. Verification procedures with a larger sample are needed to confirm the reliability of the findings. In my assessment, **the work does not meet the requirements for awarding the educational and scientific degree “Doctor”**, according to the Law on the Development of Academic Staff and its regulations.

I propose that the dissertation of Irina Slavova **be revised to address the identified shortcomings within one year from the present date** (in accordance with Art. 31 of the Regulations of Shumen University, amended 26.11.2021), after which a new defense procedure should be initiated.

Based on the critical remarks presented, I give a **negative evaluation of the dissertation and recommend that the scientific jury does not award the educational and scientific degree “Doctor”** to Irina Slavova in the scientific specialty *Methodology of Teaching in Technology and Technology*, professional field 1.3. Pedagogy of training in..., area of higher education: 1. Pedagogical sciences.

22.02.2026

Blagoevgrad

Prepared by:


(Assoc. Prof. Diana Mitova, PhD)