

OPINION

from

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on

Magdalena Zlatkova Delinesheva's Dissertation

"Didactic Technology for Building the Sense of Initiative and Entrepreneurship in the Elective Activities in Technology and Entrepreneurship Primary School"

for obtaining **the educational and scientific degree "Doctor"** in a professional field **1.3. Pedagogy of (Methodology of home appliances and technology in kindergarten and primary education)**

This opinion is prepared in accordance with Order № ПД 38-450/25.07.2022 of the Rector of Sofia University „St. Kliment Ohridski” and the resolution of the scientific jury from its meeting on 29 July 2022.

1. Candidate Data

Doctoral student Magdalena Delinesheva has many years of experience in the field of education, and in addition to her teaching activities, she has also held various management positions, including project manager. From 2018 to the present, she is the chairman of the “Education 5.0” Foundation and is actively involved in the development and digitalization of educational content and teacher training programs in entrepreneurship and blended learning, as well as in teacher training. In terms of her educational background, Magdalena advanced her pedagogical education with an economic one, which gave her an excellent basis for conducting full-time doctoral studies in the field of technology and entrepreneurship from 2018 to the present.

2. Relevance of the Dissertation

The relevance of the dissertation is related to the implementation of the action plan "Entrepreneurship 2020" (COM, 2012), which aims to expand entrepreneurial potential in Europe, together with the subsequent National Strategy for Lifelong Learning (2014 - 2020), Program for the development of education, science and youth policy in the Republic of Bulgaria (2009 - 2013) and Action Plan "Entrepreneurship 2020 - Bulgaria" (2015). In addition, after the recent reforms in Bulgarian education since 2015 and in particular with the introduction of the subject technology and entrepreneurship, entrepreneurship has been allocated minor portion of the educational content, which appears to be insufficient for its development as a key competence. Furthermore, there is a lack of unified concept of entrepreneurship' nature and learning objectives. These challenges prove the need for the introduction of didactic technology for the development of initiative and

entrepreneurship in the elective technology and entrepreneurship activities in elementary school.

3. Structure and content of the dissertation

The dissertation proposed for review has a volume of 176 pages and is structured in an introduction, four chapters, a conclusion and a bibliography of 158 sources (94 in Cyrillic and 64 in Latin). In addition to the dissertation, a separate volume "Appendices" with a volume of 156 pages is presented, in which 7 appendices are integrated, including the research instruments (survey form for primary teachers, three expert forms for a comprehensive assessment of the didactic technology for teaching entrepreneurship as extended/additional preparation or interest-based activities for students in the 4th grade), as well as the author's entrepreneurship teaching aids – the book "Small stories for entrepreneurs or stories for small entrepreneurs", and the worksheets and methodological guidelines for work with it.

In the introduction of the dissertation, the relevance of the researched issues is well grounded and the research aims are explicitly described, namely "to support the development of initiative and entrepreneurship by supplementing and expanding the curriculum in the general education subject of technology and entrepreneurship".

The first chapter of the dissertation is dedicated to a clarification of the essence of entrepreneurship as a socio-economic phenomenon and as a key competence, and entrepreneurship education with its various models and methods of education is also presented.

In the second chapter, entrepreneurship learning in the primary education is theoretically explored, its normative regulations are explained and the challenges facing its teaching are reviewed.

The third chapter "Development and testing of a didactic technology for building the sense of initiative and entrepreneurship in primary school level" presents the research methodology and sets the goals, objectives and hypothesis in the process of the research work. In this chapter, the stages and the contingent of research, as well as the applied methods, are discussed in detail, and their use is successfully justified. A variety of research instruments is included in combination with a variety of methods that enable empirical investigation of the problem from multiple research perspectives. In the same chapter, the author's proposed didactic technology is described, and its conceptual framework and design are presented.

In the fourth chapter, the results of the conducted empirical research are analysed thoroughly in its various stages and through the various methods. The analyses of the results of a survey with teachers, of the pedagogical experiment and of the expert assessment of the didactic technology are presented, and at the end of these analyses relevant conclusions and recommendations are drawn.

The dissertation work is entirely author's and has been developed in accordance with academic requirements and scientific ethics.

4. Contributions of the dissertation

Magdalena Delinesheva has adequately presented and argued her contributions in the conclusion of the dissertation work. In the framework of professionally conducted broad theoretical research

and well-planned empirical research, Magdanela has achieved the following significant contributions:

- Mapping the educational documentation on technology and entrepreneurship in relation to the European framework of entrepreneurial competence with the identification of existing gaps and weaknesses, and highlighting the necessary knowledge, skills and attitudes for the age group.
- Created, implemented and tested:
 - an author's curriculum, based on the concept of the content of entrepreneurship education derived through the mapping;
 - author's didactic technology for teaching entrepreneurship, with an empirically proven positive impact on building initiative and entrepreneurship among 4th grade students;
 - published author's teaching aid (the book "Small stories for entrepreneurs" and its worksheets), through which the didactic technology is implemented.
- Developed:
 - criteria and indicators for evaluating knowledge and skills related to initiative and entrepreneurship as a key competence;
 - methodological guidelines for teaching entrepreneurship through the implementation of didactic technology, containing an information base for the included economic topics and concepts;
 - an author's training program for increasing teachers' qualifications and their pedagogical competence in teaching entrepreneurship at the primary school.

All contributions correspond to the achievements of PhD student Magdanela Delinesheva and I reckon them as realistic and advanced over the existing research in the field of technology and entrepreneurship education in primary education.

5. Abstract and publications

The abstract fully corresponds to the structure and content of the dissertation and presents the most essential information from the research in a short version.

The doctoral student has 6 publications in relation with her dissertation with a certain contribution to disseminating the results and implications of the research. The list includes 3 independent publications and 3 co-authored publications, one of which is co-authored with her scientific supervisor.

6. Critical notes and recommendations

I do not have any critical comments on the dissertation, proposed by Magdanela Delinesheva. I only believe that the achievements of the doctoral student should be more explicitly stated and presented as a separate part of the dissertation, named "Contributions".

The PhD student has an excellent scientific writing style and has achieved high results, which I recommend both to publish in the form of an independent monograph and to disseminate through

publications in refereed and indexed in world's scientific databases journals.

7. Conclusion

The dissertation submitted for discussion fully meets the requirements for this type of scientific output. It contains scientific and applied results that represent an original contribution to the research field of technology and entrepreneurship education. It also demonstrates Magdanela Delinesheva's professionalism as a researcher with a deep knowledge of the essence of the research problem, with excellent skills for theoretical and empirical analysis. Based on all of the above, I give my **positive** assessment of the conducted research and recommend to the members of the scientific jury to vote for awarding Magdanela Delinesheva the educational and scientific degree "Doctor" in professional field 1.3. Pedagogy of (Methodology of home appliances and technology in kindergarten and primary education).

31.08.2022

Reviewer:

Sofia

Assoc. Prof. Dr Lyubka Aleksieva