REVIEW

by

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member of the scientific jury, appointed by Order No. RD-16-155 of 26.09.2025
of the Rector of "Konstantin Preslavsky" University of Shumen

REGARDING: the defense of a dissertation thesis for the award of the educational and scientific degree "Doctor"

in the field of higher education: ***1. Pedagogical Sciences***
Professional direction: ***1.2. Pedagogy***
Faculty of Pedagogy
Department of "Preschool and Primary Education"
Author: ***Valentina Velichkova Georgieva***
Topic: ***The role of constructive activities for the development of cognitive activity of preschool children in the conditions of project-based training***
Doctoral Program: ***Preschool Pedagogy***
Scientific Supervisor: ***Prof. Yordanka Stoyanova Peycheva, PhD***

1. DATA ON THE DOCTORAL STUDY, THE DISSERTATION, THE AUTHOR'S ABSTRACT, AND THE PUBLICATIONS

DATA ON THE DOCTORAL STUDENT

Valentina Georgieva is a graduate of Shumen University "Episkop Konstantin Preslavski", where she completed the bachelor's program in "Preschool and Primary School Pedagogy" (2013). In 2014, she obtained a master's degree in "Innovations in Preschool and Primary Education".

Her professional experience as a children's teacher is linked to two kindergartens in Shumen – Kindergarten "Svetulka" (2013-2017) and Kindergarten "Shturche" (2017-2024). Since 2024, she has been part of the academic staff of the Department of "Preschool and Primary Education" at the Faculty of Pedagogy, Shumen University "Episkop Konstantin Preslavski", where she holds the position of "Assistant".

From the attached documentation, it is evident that the doctoral candidate's professional development is consistent and sustainable. ***The data from her***

curriculum vitae demonstrate the purposefulness of her professional interests and the consistency in her choices to further develop her expertise in the field of preschool and higher pedagogical education.

DATA ON THE DOCTORAL STUDY, THE DISSERTATION, THE AUTHOR'S ABSTRACT, AND THE PUBLICATIONS.

Valentina Georgieva is a doctoral candidate in full-time study in the doctoral program "Preschool Pedagogy", enrolled by Rector's order No. RD-10-079 dated 31.01.2020, with the dissertation topic "Formation of Technological Culture in 5–6-Year-Old Children in the Context of Project-Based Learning", scientific supervisor Prof. Dr. Yordanka Stoyanova Peycheva. The duration of her studies is three years, starting from 01.02.2020. Within this period, based on Order No. 10-801 dated 07.11.2022, the original dissertation topic was revised and reformulated as "The Role of Constructive Activities in the Development of Cognitive Activity of Preschool Children in the Context of Project-Based Learning". The doctoral student has been discharged with the right to defend, as of 01.02.2023 – RD-10-144 dated 24.02.2023.

Based on a submitted application, accompanied by evidence of fulfillment of all doctoral obligations, the dissertation was discussed in the Department of "Preschool and Primary Education" and scheduled for public defense on 11.09.2025 (Protocol No. KD-01-01/11.09.2025).

From the attached documentation and the findings reflected in the above-mentioned protocol of the Extended Council, it is evident that throughout her entire study period, Valentina Georgieva has timely and accurately reported the fulfillment of her obligations arising from the Individual Study Plan. ***No procedural violations have been observed, and the formal requirements of the applicable laws and regulations of the Republic of Bulgaria and Shumen University have been properly met.***

Relevance of the topic

The doctoral candidate focuses her research efforts on an interesting and dissertation-worthy topic. Its relevance arises from the necessity for the contemporary teacher to receive professional support in order to implement project-based educational interaction in pedagogical practice with the required methodological confidence, particularly in the areas of construction and technologies. It is determined by the understanding that the functioning of pedagogical subjects within a project-organized educational environment, where children's activity is valued and encouraged through meaningful, personally significant interactions, presupposes the achievement of complex results that, in perspective, are fundamental for preparing key competencies defining the academic prosperity of the developing individual. In this context, the development of practice-relevant innovations is associated with the conceptualization and applied provision of project-based technologies, which substantially alter the child's position in the process of participating in constructive activities. This is precisely the direction of Valentina Georgieva's research ambitions, as she identifies opportunities in this problem area to propose educationally applicable solutions with the capacity for holistic implementation of a competence-oriented approach based on active learning. Her research choice is grounded in the current educational context, which requires *"effective overcoming of problems* *related to children's activity in the learning process and their adaptation in a rapidly changing, dynamic environment"* (p. 11). These are technologically secured as a model system for optimizing pedagogical interaction in the educational field "Construction and Technologies" on the example of a fourth-age group (6–7-year-old children). Their significance is linked to the implementation of ideas for competence-oriented learning, based on active mental and practical activity while preserving and stimulating children's creativity. The applied provision supports the doctoral candidate's ambition to assist teachers who have undertaken the challenge of ensuring, through a project-based toolkit, the cognitive, motivational, and socio-emotional development of future students under conditions of independent execution of practical and cognitive tasks in constructive activities. *I commend the scientific supervisor – Prof. Dr. Yordanka Peycheva – for choosing this relevant research topic and for skillfully guiding the doctoral candidate in carrying out her interesting and practically significant research program.*

Knowledge of the problem

Valentina Georgieva demonstrates excellent familiarity with the researched problem area. This is evidenced by the scope and nature of the reviewed scientific literature and documents. Understanding their content provides the necessary basis for analytical interpretation and synthesis of positions and viewpoints relevant to the chosen research field. It is noteworthy how creatively these sources are subordinated to the dissertation topic, accompanied by the expression of her own perspective, nuanced by personal and professional engagement with the issues outlined within the research problem.

Research methodology

The selected research methodology allows the achievement of the research objective, focused on creating a "(...) stimulating, competence-oriented educational environment through the development of an innovative model of pedagogical interaction, which ensures the application of acquired knowledge and skills in conditions of practical-applied activity" (p. 99). The chosen toolkit is aligned with the theoretical and applied nature of the study and includes: analysis of scientific literature, synthesis and systematization, modeling, pedagogical experiment, observational methods, diagnostic methods, and mathematical-statistical methods. Their comprehensive application ensures an adequate response to the tasks addressed in the dissertation, as the use of diverse methods guarantees obtaining valid, relevant, and representative information.

Characteristics and evaluation of the dissertation and its contributions

The dissertation is developed in a volume of 303 pages, of which 200 pages comprise the main text, while the remaining pages present: the table of contents, tables of abbreviations used, lists of tables and figures, and a bibliographic description of the literature used (a total of 118 titles).

The work is structured into an INTRODUCTION, FOUR CHAPTERS, and a CONCLUSION, FINDINGS, LITERATURE, and APPENDICES. Its content includes 21 tables and 40 figures. Attached to it are 17 appendices with evidential materials: diagrams, diagnostic tools, data recording forms, tables for evaluating children's achievements, thematic distributions, an annual plan, and photographic material. In their entirety, these elements demonstrate the responsible execution of the research program and its effectiveness.

In the *introduction* (pp. 9-12), the doctoral candidate specifies arguments supporting her choice of dissertation topic. These arguments are presented both from a professional and personal perspective, demonstrating the thoughtfulness of the selected research problem. They correspond to the current educational context, in which methodological and technological options for implementing project-based learning in preschool education are pursued and ensured at various levels, with the ambition of using this approach to foster the cognitive activity of children.

In *the first chapter* (pp. 13-96) Valentina Georgieva lays out the theoretical foundations of her research. She structures this part of her work purposefully, highlighting four main emphases: contemporary aspects of preschool education, psychological and pedagogical aspects of cognitive activity, psychological and pedagogical discourses on preparing the child for school, functions of constructive activity for enriching the cognitive and practical experience of 6 – 7-year-old children.

In connection with the first substantive focus (pp. 21-51), the author emphasizes the competence-based approach in preschool education, arguing the necessity of its qualitative application in daily pedagogical practice. She highlights the advantages of interactive methods as a toolkit for the balanced development of children (pp. 29-39). In a retrospective view, she presents the history of PBL with a focus on the contemporary interpretation of classical ideas and concepts in support of pedagogical innovations in constructive and technological interaction (pp. 39-48). She points out the benefits of integrating the STEAM approach into project work in kindergarten, specifying and justifying opportunities for its application in the stages of exploratory and experimental work on the project (pp. 48-51).

In presenting and justifying the second substantive focus (pp. 51 – 75), emphasis is placed on characterizing the cognitive domain of the personality and specifying the conceptual apparatus related to this thematic field from the perspective of psychology (pp. 51-71). Based on precisely derived arguments, theoretical benchmarks are systematized to determine objective criteria and indicators for tracking the dynamics of children's cognitive activity, taking into account age-related characteristics considered in the context of early childhood. Special attention is given to the specificity of the cognitive activity of 6 – 7-year-old children and the toolkit for its stimulation, based on play (pp. 71-75).

In connection with the third substantive focus (pp. 75-78), attention is drawn to the formulation of the research problem in the context of the psycho-pedagogical aspects of preparing the child for school, and the provided rationale concerns the application of the created holistic eight-component model for identifying and monitoring achievements and progress in the development of the future pupil under the conditions of PBL (p. 77).

The fourth paragraph of the first chapter is devoted by the author to the functions of constructive activities for enriching the cognitive and practical experience of 6 – 7-year-old children (pp. 78-96). In this section, she demonstrates skills in building the theoretical framework of her research through the skillful interpretation of theories on the development of learning in "Construction and Technologies" (pp. 78-79), justifying the essence of educational interaction in this field and the benefits of involving children in constructive activities (pp. 79-92), and integrating constructive activities with other educational areas (pp. 92-96).

Consequently, the doctoral candidate demonstrates a good knowledge of the selected scientific publications and regulatory documents. She skillfully integrates cognitive and research resources for the needs of her own study. She convincingly highlights the advantages of PBL in interaction in "Construction and Technologies." The methods and procedures used guide her toward the multi-faceted and interconnected nature of the problems identified at the theoretical level. In this part of the work, the author defends her ambitions to establish the general theoretical conceptual framework of her research.

In *the second chapter* (pp. 97-117), the doctoral candidate focuses her attention on the methodology, methods, and organization of the study. She appropriately defines the conceptual and terminological apparatus she employs. She specifies the aim, objectives, research object, subject, and hypothesis. She precisely clarifies the research instruments and the organization of the conducted study. She derives a purposeful system of criteria and indicators. The research tools used are described in detail.

Consequently, Asst Valentina Georgieva demonstrates skills in developing and justifying a research design and convincingly defends it through the punctual clarification of each of its elements

.In *the third chapter* (pp. 118-178), I commend the detailed presentation of the author’s integrative educational model for pedagogical interaction under the conditions of PBL, which is conceptually, substantively, and technologically sound. Of particular interest is the proposal for an adaptively structured holistic model for observing and tracking the development progress of 6–7-year-old children in the context of PBL, oriented towards their overall development. The design of the model is clear, the goals are achievable, and the structure and content are logically aligned with the specifics of PBL and the possibilities for integrating constructive activities into children’s project-based activities. Particularly noteworthy is the modular arrangement of the global educational domain, divided into thematic lines, and its well-structured thematic organization. Here, the author demonstrates visionary culture and competencies for precise pedagogical modeling. An interesting technology has been developed, allowing the achievement of the specified expected outcomes. The systematized original technological elements are purposeful and have the capacity to ensure a holistic effect. Their educational and applied potential clearly meets the requirements for innovative pedagogical practice.

Consequently, in this part of the dissertation, the author convincingly demonstrates the ability to develop and justify technological solutions that are effective in the contemporary educational context and yield results with respect to the chosen research challenge..

In *the fourth chapter* (pp. 179-207), the doctoral candidate provides a detailed analysis of the results of the conducted study. The analytical focus in the individual subparagraphs is logically linked to the four research criteria: cognitive development, motivation, application of knowledge and skills, and socio-emotional interaction. The data are summarized and presented in a purposeful manner. The analysis is accurate and correct. Their interpretation allows for the identification of trends supporting the research thesis.

The conducted summary analysis supports the doctoral candidate's ambition to promote the final product of her work, which demonstrates pronounced applied significance, the advantage of scientifically grounded conceptualization, and statistically validated effectiveness regarding the model's capacity to enhance the cognitive activity of 6–7-year-old children through the integration of constructive activities in the context of PBL.

The doctoral dissertation is an original work by the author. ***The content of the dissertation does not infringe upon copyright or intellectual property rights.*** This has been verified through testing with software designed to detect plagiarism and improper practices. The results of this verification are documented in *the Similarity Report* attached to the documentation.

The language of the dissertation is academic, the style is appropriate for this type of work, and the structure of the text is organized with the necessary logical completeness for each component. The form and content of the dissertation comply with Article 27 of the Regulations for the Implementation of the Law on the Development of Academic Staff in the Republic of Bulgaria.

The abstract is structured in accordance with the requirements. It comprises 56 pages and accurately presents the substantive characteristics and structural parameters of the dissertation.

Assessment of the Publications and the Doctoral Candidate's Personal Contribution

Assistant Valentina Georgieva presents three scientific publications. They were produced during her doctoral studies and have been included to meet the required scientometric indicators. The works demonstrate her ability to disseminate the results of her research. All publications are related to the topic of the dissertation. They meet the standards for scientific articles and reflect interim results from the conducted research within the framework of the dissertation project. They focus on current issues related to substantiating the need to innovate educational interaction in construction and technology through the tools of project-based learning, highlighting the advantages of contemporary approaches for the forward-looking development of key competencies required in the 21st century by engaging children in project-based activities.

This indicates that Assistant Valentina Georgieva has met the quantitative requirements of the Regulations for Obtaining Academic Degrees at Shumen University "Bishop Konstantin Preslavsky" regarding the number of publications and participation in scientific forums. The attached materials confirm that the minimum national requirements related to the educational and academic degree „Doctor" have been met (Article 2b, paragraphs 2 and 3 of the Law on the Development of the Academic Staff in the Republic of Bulgaria and Article 1a, paragraph 1 of the Rules for the Implementation of the Law on the Development of the Academic Staff in the Republic of Bulgaria). Заверената надлежно наукометрична справка отчита задължителните 50 т. за Г „А" и 30 т. за Г „Г". The *duly certified scientometric report records the mandatory 50 points for G "A" and 30 points for G"G".*

2. SCIENTIFIC CONTRIBUTIONS

The main achievements in the dissertation and its original contributions can be systematized as follows:

A. Scientific and Theoretical Aspect:

1. I positively acknowledge the conducted scientific and analytical-comparative analysis of the current state and characteristics of preschool education in Bulgaria, as well as the derived scientific-theoretical context for a nuanced supplementation of the existing pedagogical and methodological knowledge on the issue of interactive learning in construction and technology within the framework of project-based activities. I define it as a significant reference point for the prospective optimization of pedagogical interaction with 6–7-year-old children in a developmentally project-oriented environment that fosters children's cognitive engagement.

2. I appreciate the positive theoretical justification for the integration of specific innovative practices for including constructive activities within a synergetic system, along with other substantial and engaging children's activities, categorized according to key competencies from various educational directions, consolidated through global educational areas aligned with the primary functions of the from the UN Environment

3. I highlight the contributory nature of the discursive analysis of existing scientific knowledge within the chosen research context, based on which methodological grounds are derived for composing the authorial educational model for pedagogical interaction in a project-oriented environment.

B. Experimental-research aspect:

1. I positively assess the experimentally tested model for developing key competencies through constructive activities in kindergarten, and I consider its statistically demonstrated significance for optimizing pedagogical interaction with 6–7-year-old children in a project-oriented environment as a major advantage.

2. I positively acknowledge the systematic toolkit for examining the effectiveness of the authorial formative system. It is easy to apply and ensures objectivity in assessing the achievements and progress in the development of future first-grade students.

3. I confirm the contributory aspects regarding the authorial content and technological approaches for developing key competencies within project-based interaction with 6–7-year-old children, which create opportunities for effectively stimulating manifestations of cognitive activity in everyday pedagogical practice.

C. Practical-applied aspect:

1. I positively acknowledge the defended, practically implemented, and statistically validated example of innovative practice through the trial of the authorial integrative model in a real educational setting. I consider that it can be successfully applied and further developed in the professional daily practice of an innovative teacher who aims to encourage children's active participation in acquiring cognitive

and practical experience, while offering a variety of subjectively meaningful activities for them, implemented within a project-based learning environment.

2. I positively acknowledge the practical enrichment of teachers' methodological toolkit with specific educationally applied instruments for optimizing pedagogical interaction, whose effects are statistically validated. I appreciate the potential of these instruments to achieve progress in the quality of educational interaction, oriented toward the development of key competencies before children enter school.

The contributions presented by the doctoral candidate correspond to the content of the study and objectively reflect the achievements of Valentina Georgieva. It is appropriate for them to be differentiated and presented in subgroups according to their nature.

Questions

What challenges related to the integration of project-based models in educational interaction for construction and technology in kindergarten did you identify during the implementation of your research? How can they be addressed through the implementation of your original model in practice?

Recommendations for the future use of the dissertation's contributions and results

The relevance of the topic and the doctoral candidate's professional engagement with the research subject likely provide impetus for future scientific projects through which the results of the conducted study can be disseminated to a wider audience. I recommend preparing and publishing a monograph in the near future, aimed at target audiences involved in optimizing educational interaction in construction and technology in kindergarten.

3. CONCLUSION

The dissertation ***contains scientific, scientific-applied, and applied results that constitute an original contribution to science and meet all*** the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria, the Rules for the Implementation of the Law on the Development of the Academic Staff in the Republic of Bulgaria, and the corresponding Regulations of Shumen University "Episkop Konstantin Preslavski." The author, ***Valentina Velichkova Georgieva***, demonstrates competencies in conceptualizing and conducting scientific research within the field of preschool pedagogy.

In view of the above, I confidently give my ***positive assessment*** of the conducted research, the achieved results and contributions, and I submit to the esteemed members of the Scientific Jury my positive vote for awarding the educational and scientific degree of Doctor to ***Valentina Velichkova Georgieva***, in the field of higher education 1. Pedagogical Sciences, professional direction 1.2. Pedagogy (Preschool Pedagogy).

24 October 2025 **Prepared the revive by:**

Veliko Tarnovo (Prof. Petya Karaivanova, PhD)