

STATEMENT

concerning the dissertation:

MODEL FOR THE FORMATION OF PRACTICAL AND COGNITIVE SKILLS IN 5-7 YEAR OLD PRESCHOOL CHILDREN FOR ORIENTATION IN THEIR ENVIRONMENT

for acquiring the educational and science degree “Doctor” (PhD) in

Area of Higher Education: 1. Education Studies

Professional field: 1.3. Pedagogy of teaching ...

Doctoral program: Methodology of Teaching Domestic Science and Technical Skills in Kindergarten and Primary School

Department: Humanitarian education

Department for Information and In-Service Training of Teachers

Sofia University “St. Kliment Ohridski”

PhD student: Zdravka Georgieva Kostadinova

Reviewer: Prof. D.Sc. Plamen Anatoliev Legkostup

1. INFORMATION ABOUT THE DOCTORAL STUDIES, DISSERTATION, ABSTRACT AND PUBLICATIONS

Information about the PhD student

Zdravka Georgieva Kostadinova graduated with a Bachelor's degree in Primary School Pedagogy at the Faculty of Pre-school and Primary School Education of Sofia University "St. Kliment Ohridski" in 2001, and in 1994 obtained a Master's Degree with the qualification of "Mechanical Engineer" in the Technical University in Sofia. She speaks English, French and Russian. From 1995 to 2001, she worked as a Constructor at the Central Institute of Computer Technology, Sofia, and from 01.03.2001 until now has been an assistant professor

and lecturer at the Department of Humanitarian Education at the Department for Information and In-Service Training of Teachers.

Information about the procedure

Zdravka Kostadinova has been registered as a PhD student of Free Training at the Department of Humanitarian Education, Department of Information and In-Service Training of Teachers, Sofia University "St. Kliment Ohridski" from 01.11.2023. The dissertation is selected and submitted for official public defense by the Department of Humanitarian Education and meets the legal requirements. By Order of the Rector No. RD 38-677/10.12.2024, a scientific jury has been appointed. The two different higher educations, as well as the work experience, complement each other beautifully and logically lead to the field of application of doctoral studies. The procedure meets the requirements and conditions of the Law for the Development of the Academic Staff and the Regulations for the terms and conditions for acquiring scientific degrees and occupying academic positions at SU "St. Kliment Ohridski". No violations were noticed.

Information about the dissertation

The dissertation meets all the legal requirements, as well as those specified in the Regulations on the terms and conditions for acquiring scientific degrees and occupying academic positions at Sofia University. After the analysis carried out, and on the basis of the submitted Declaration of originality and reliability, we can say that the dissertation is an independent and original work of the author. On the basis of the research of the PhD student, scientifically substantiated conclusions and recommendations can be made which are significant for the pedagogical practice. The dissertation consists of 220 pages, with the main text being 200 pages and the appendices occupying 20 pages. It is illustrated with 54 tables and 81 diagrams. The literature used consists of 141 titles – 137 in Cyrillic and 4 in Latin, including 7 Internet resources. The oldest source is from 1946, but

modern sources predominate, with the latest ones from 2023. In addition, numerous normative documents related to the topic of the dissertation have been studied. The dissertation consists of an introduction, three chapters, conclusion, used literature and appendices, including theoretical, methodological and analytic parts, which are properly structured and meet the established requirements and accepted practices. The chosen topic is actual, dissociative and socially significant. Developed in this way, it ensures the complementation of pedagogical theory and practice with new ideas in the context of the modern educational paradigm. In the dissertation, a successful attempt, in my opinion, is made to update and substantiate the position of the game in the synergized structure of the process of acquiring initial key knowledge for the formation of practical and cognitive skills in 5-7-year-old children for orientation in their environment.

The pedagogical model proposed in the dissertation is aimed at play-based acquisition of practical and cognitive skills in 5-7-year-old children for orientation in their environment and through its application it is proved that the technology of learning, based on a research approach, is successfully integrated by teachers into the educational process aimed at the safe behaviour of children in the external, surrounding environment. I believe that in this aspect there is a focus on integrating pedagogical technologies with the development of practical and social skills related to the safe behaviour of children in the external environment. On the other hand, the knowledge, skills, habits and attitudes acquired in activities related to competence for assessment and decision-making for behaviour in real, complex situations are enriched through the application of integral pedagogical and methodological technologies.

In the Introduction, the PhD student presents the methods for selection and the relevance of the topic, which outlines the problematic fields to which his research ambition begins. It is pointed out that the proposed model is based on an integrative basis between the educational cores "Construction and Technology", "Environment" and "Traffic Safety for Children and Students". Integrative links,

educational goals and learning content are synchronized. The design, scope and specifics of the pedagogical research are presented. Its components are specified: subject, object, purpose, hypotheses, tasks, organization, methodology and tools of the study, criteria and indicators for taking data from the conducted pedagogical experiment. The purpose and object of the study are reasonably formulated. I accept the four tasks derived, as well as the formulated hypothesis of the research.

Here the personal commitment of the author to the chosen problem can be noticed and her possibilities for professional and competent defense of those in the chosen field for the investigative event. In the first chapter, entitled Theoretical Statement of the Problem, Zdravka Kostadinova focuses on the results of the analysis of scientific publications, studies basic concepts related to the topic under research and presents the theoretical position of the main problems in the dissertation. The main accents of strategic and regulatory documents are considered, and the point of view is focused on the content of the educational areas "Environment", "Design and Technology" and their integration with safe traffic on the roads of children. Psycho-physiological features of preschool children are examined. This chapter consists of 9 main paragraphs, the fourth and eighth being clarified in corresponding subparagraphs.

In the second chapter, called Presentation of the Technology, its three paragraphs are correctly presented: a conceptual framework, a content part and a procedural part. In the first – a conceptual framework, starting points and ideas for creating the technology are clarified. Basic concepts for the topic under consideration are presented. In the second – content part, the starting positions and guidelines in the design of the technology are summarized. The third paragraph – procedural part, contains working algorithms of a model for the formation of competence in preschool children for orientation in the surrounding environment.

In Chapter Three – Conducting of Empirical Pedagogical Research, in seven paragraphs, the research scope of the study is presented. The overall organization of the scientific research is systematized and described, by presenting basic concepts for the research. A system of specific research activities is structured in the stages (preliminary experiment, ascertaining, formative and control experiment) of the pedagogical experiment. Their place and role for the normal course of the study are considered. The necessary tools are presented. The game-based model has been developed, as well as the innovative structure of the games applied in it.

The chapter competently presents the rules, parameters, indicators and criteria for conducting the research. They are logically formed, arranged and interconnected. This assumes the optimal implementation of the research programme and the receipt of objective data. With the help of tables and diagrams, the activities set out in the model and the competencies they develop are illustrated. The methods and approaches used are justified. The method used is well represented. The plan of the pedagogical experiment is purposefully developed. Scientific methods, diagnostic tools and specialised methods are applicable and have the necessary reliable and trustworthy character. The results of the preliminary experiment are summarized, conclusions are drawn. The results of 5-6- and 6–7-year-old children were analysed for an ascertaining and control experiment. The impressions of teachers about the applicability of the research approach applied under the direct supervision of the teacher are studied.

In the chapter, from the third to the seventh paragraph, the results and conclusions from the four stages of pedagogical research are summarised. They are presented in tabular, graphic and text formats, and for this purpose data on the number of children and the ratio in percentages (%) are used, as well as questionnaire surveys, which are analysed. The mathematical and statistical methods for proving the hypothesis and for processing and analysing the empirical data from the research conducted in the dissertation are suitable for this

purpose. Their selection is made in accordance with the goals and objectives of the empirical research, on the one hand, and the type and volume of the data obtained, on the other.

On the basis of the analysis of the results of the final and control stage of the experimental study, a comparative analysis of the obtained empirical data was made. From the general results between the entry and exit levels, it is evident that there is a statistically reliable difference in the respective indicators. Comparing the data of the ascertainment with those from the control stage indisputably proves the hypothesis.

At the end of the dissertation, in a paragraph entitled Deduction in one page, the dissertation has summarised the results of the systematic work according to the proposed pedagogical model, believing that on their basis, the working hypothesis can be accepted. Then, within half a page, a Conclusion is made. I agree with the summaries of the results, deduction and conclusions made in this part of the dissertation. In the context of the shared opinion, the author's contribution is objectified by the statistically proven positive impact of experimentally tested games in the overall pedagogical model. It creates an extremely positive-cognitive and emotional-inquisitive attitude for understanding and applying safety norms and for safe behaviour in various situations in the surrounding world.

The style meets the requirements for this type of work, and the doctoral student's speech is at an academic level from a linguistic point of view.

About the Author's summary

The summary reflects in a synthesized and analytic way the essence of the research, correctly presents the author's contributions and responds to the generally accepted requirements.

Publications and participation in scientific forums

The PhD student has presented five independent and related to the topic of the dissertation publications, which is more than the required minimum. With the 100 points obtained, she meets the minimum national requirements for the educational and scientific degree "Doctor", according to the requirements of the Law and the Regulations for its Implementation. With the overall implementation of the dissertation work, no procedural and formal violations have been found.

1. SCIENTIFIC CONTRIBUTIONS

Zdravka Kostadinova's dissertation and scientific production are in the thematic field of the doctoral programme. They are substantively related to the professional interests of the PhD student in the field of preschool and primary school pedagogy and the methodology of training in engineering and technology. In these areas, the scientific contributions made can also be specified, as they are indicated:

1. Research and analysis of strategic and regulatory documents, educational and methodological literature published in the period from 1972 to 2023 for the educational areas 'Construction and Technology' and 'Environment' in preschool education.

2. The concept of "Competence for orientation in the environment in 5-7-year-old preschool children" has been clarified.

3. A didactic model based on a research approach has been developed for the formation of practical and cognitive skills in preschool children for orientation in their environment.

4. A methodological system, a toolkit for the implementation of the didactic model has been created and applied in the pedagogical practice, in the following parts: 1.1 Models for active learning in building practical and cognitive

skills in preschool children for orientation in the environment 1.2 Guidelines for the teacher in conducting the training of 5–7-year-old preschool children with the developed manual. 2. A Teaching aid for 5–7-year-old children of preschool age.

I accept the main contributions of the scientific production, formulated by the author. In addition to the analysis of important theoretical and applied problems, they also contain approved models for optimising pedagogical interaction. I rate them positively.

The conclusions that can be drawn on the basis of the presented scientific contributions show that the experimental methodological model functions successfully in the educational process. The pre-set expected results have been achieved and the model could be successfully used in the teachers' practice.

I do not have any significant critical remarks to the dissertation.

Against the background of the rich content of the dissertation, the following **notes, questions and recommendations** can be made:

1. On page 19 of the dissertation, it is written: ... “The author of the direction “Structural-Technical and Domestic Technologies” Raina Gaydarova explains"... In my opinion, a technical error was made because the correct name appears in the bibliography afterwards – Radka Gaidova.
2. The conclusions in the dissertation could be larger; I would even recommend that after each chapter specific conclusions should be formulated that are relevant to the tasks set.
3. The conclusion of the dissertation could be more extensive and could more clearly outline the research perspectives generated by the results of the experimental work, as well as the future opportunities for the developing of the model.
4. I have the following **question** for the PhD student: Is it possible and to what extent, through fine arts and activities, to integrate educational content between the training in construction, environmental reality and fine arts, and this interaction, especially in the theoretical and applied field of building

independent safe behaviour in the environment surrounding of children, will or will not enrich the methodology of teaching in preschool age?

5. The researched, analysed and summarised rich theoretical material, as well as its practical implementation, could be published in the form of a monograph, of course, after the adaptation of the dissertation.

The critical remarks and recommendations made in the review do not cast doubt on the indisputable and significant contributions contained in the dissertation, but could be the subject of further efforts of the author.

CONCLUSION

From the materials that I studied thoroughly and with interest, I can conclude that Zdravka Georgieva Kostadinova is an erudite author who has the necessary intellectual and professional qualities of a researcher and pedagogue. Having thoroughly familiarized myself with the dissertation and the publications to it, I dare to say that they are the original work of the author.

Taking into account the relevance and significance of the researched topic, the undeniable merits of the dissertation, revealing the indisputable qualities and ability of the PhD student Zdravka Kostadinova for independent research, her opportunities for revealing new scientific facts and regularities that enrich the pedagogical practice, I give a **POSITIVE ASSESSMENT** of her work.

Based on the above, with conviction, I propose to the members of the specialized scientific jury to award **ZDRAVKA GEORGIEVA KOSTADINOVA** the educational and science degree “Doctor” (PhD) in Professional field: 1.3. Pedagogy of Teaching Domestic Science and Technical Skills in Kindergarten and Primary School.

18.01.2025

Veliko Tarnovo

Reviewer:



(Prof. PLAMEN LEGKOSTUP, D.Sc.)