

STATEMENT REPORT

**under the procedure for acquisition of the educational and scientific degree “Doctor”:
by candidate: Elitsa Vasileva Peltekova
of the PhD Thesis entitled: „*Methods and Tools for Supporting Inquiry-Based Learning*“**

In the Scientific field: **4. Natural sciences, mathematics, and informatics**

Professional field: **4.6. Informatics and computer science**

Doctoral program: **„Information technologies (Information and communication technologies) “**, Department: **„Information technologies “**,

Faculty of Mathematics and Informatics (FMI), Sofia University “St. Kl. Ohridski” (SU)

The statement report has been prepared by:

prof. Daniela Ivanova Tuparova, PhD, South-West University “Neofit Rilski”,

as a member of the scientific jury for the defence of this PhD thesis according to Order № ПД 38-307/01.07.2022 г. of the Rector of the Sofia University.

1. General characteristics of the dissertation thesis and the presented materials.

The PhD thesis has a total volume of 173 pages and includes: lists of figures and tables, used abbreviations and terminology; introduction; five chapters; conclusion; author reference; bibliography and nine appendices. The used bibliography sources are a total of 147, of which 135 are in English and 12 in Bulgarian.

The materials presented are very well organized and structured.

2. Short CV and personal impressions of the candidate

The PhD student Elitsa Peltekova has a bachelor's degree in applied mathematics from TU Sofia and a master's degree in e-learning from SU "St. Kliment Ohridski". She completed specializations in foreign universities within the framework of various international and national programs - Erasmus and others. She has a total of 24 papers and about 30 citations. She has gained extensive experience in the field of e-learning within the framework of her positions as a researcher or collaborator in a number of educational and scientific projects. She participated in 29 educational and scientific projects, of which 7 are related to the topic of the PhD thesis.

I am familiar with a significant number of her papers in the field of e-learning. I also have direct impressions of the work of Elitsa Peltekova within the framework of the presentations of projects under the Erasmus program and the ModernA project. She is distinguished by precision and very good organizational skills.

3. Content analysis of the scientific and applied achievements of the candidate, contained in the presented PhD thesis and the publications to it, included in the procedure.

The PhD thesis and the papers presented on it are aimed at an extremely actual topic - various aspects of the application of information technologies in the educational process. The research is interdisciplinary in nature and has contributions both in the field of information technology and in the field of education. The subject and object of the research are formulated, correct and relevant research questions are posed. The tasks set in the research are aimed at finding the answers to the research questions. The proposed models have been verified and studied in practice within two projects. Non-parametric statistics (due to small number of participants) were correctly used to analyze the data from the empirical study of the proposed models. It would be good also to analyze each of the questionnaires regarding their reliability.

4. Approbation of the results

Results of the PhD research have been published in 5 papers indexed in Scopus. Of them: 1 is single and 4 - co-authored. A search in the scientific information databases Scopus and Web of Science found that 3 of the papers are indexed in Scopus in issues with SJR, and two papers [4] and [5] from the list of papers are in conference proceedings, indexed in Web of Science, no impact factor. The total number of points for papers is 126 (3x30+2x18). The publications and their scientometric indicators significantly exceed (4 times) the minimum national requirements and the additional requirements of SU "St. Kliment Ohridski" for the acquisition of an educational and scientific degree "doctor" in the Field 4.6. Informatics and Computer Science. Moreover, 16 citations of the papers are indicated in the author's reference. I also found several additional citations in SCOPUS and Web of science. This is an indicator that the research on the dissertation work has also been evaluated by the international scientific community.

I did not detected elements of plagiarism in the presented PhD thesis and papers.

5. Qualities of the abstract

The abstract presents in a synthesized form the PhD thesis and the achieved results. It meets the abstract requirements.

6. Critical notes and recommendations

In the overview part, it would be suitable to find a place for publications by Bulgarian authors related to the application of, for example, virtual reality and other technological tools supporting the educational process.

The availability of an analysis of the reliability of the questionnaires used, would contribute even more to the confirmation of the obtained results.

7. Conclusions

Having familiarized myself with the PhD thesis presented in the current procedure and the supplemented scientific papers and based on the analysis of their significance and the scientific and applied scientific contributions contained in them, **I confirm** that the presented PhD thesis and the scientific papers to it, as well as the quality and the originality of the results and achievements presented in them, meet the requirements of the Law Act for Development of Academic Staff in Republic of Bulgaria, the Regulations for its application and the relevant Regulations of SU "St. Kliment Ohridski" for the candidate's acquisition of the educational and scientific degree "doctor" in the scientific field 4. Natural sciences, mathematics and informatics and professional field 4.6. Informatics and Computer Science. In particular, the candidate meets the minimum national requirements in the professional field and no plagiarism has been found in the scientific works submitted for the competition.

Based on the above, **I strongly recommend** the scientific jury to award Elitsa Vasileva Peltekova the educational and scientific degree "doctor" in scientific field 4. Natural sciences, mathematics and informatics, professional field 4.6. Informatics and Computer Science (Information Technology).

16.09.2022

Signature:

prof. Daniela Tuparova, PhD