

REVIEW

**under the procedure for acquisition of the educational and scientific degree “Doctor”
by candidate Panagiotis Anagnostou
of the PhD Thesis entitled: „Evaluation of the effectiveness of the remote online learning
based on the perceptions of learners and trainers“**

In the Scientific field: **4. Natural Sciences, Mathematics and Informatics /**

1. Pedagogical Sciences

1.3. Pedagogy of learning in ...

Doctoral program "Teaching Methodology of Mathematics and Informatics"

Department „ Teaching of mathematics and informatics”

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

The review has been prepared by: **associated professor Yonka Petrova Parvanova, PhD,
Faculty of Education, Sofia University “St. Kliment Ohridski” (SU)**
as a member of the scientific jury for the defense of this PhD thesis according to Order № ПД-
38-155/ 27.03.2024 y of the Rector of the Sofia University.

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

The presented thesis deals with an important question in the context of recent COVID-10 pandemic. The effectiveness of online learning became a focus of researches since 2020 and will continue to be a valuable research topic in the future to come.

The thesis has a total of 245 pages, of which 222 are the author’s text. The rest of the pages contain the contribution, the list of references and appendices. It has Introduction and Five (5) chapters, the last one actually serving as a conclusion. The list of references includes nearly 100 titles relevant to the thesis topic, both from Greek and other authors.

2. Short CV and personal impressions of the candidate

I haven’t had the chance to work with the candidate in person so I can’t share any personal impressions about his work and/or study. Still the CV he presented provides enough information and presents his work and studies.

The candidate has an extensive education in the fields, related to education and training, including vocational education and informatics education. His work experience as teacher and trainer and, recently, as a director of training institutions had made the foundation for his research interest in the topic.

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

In the Introduction the PhD student states the relevance of research topic and clearly describes his arguments for choosing the research field. The research objects and subjects are clearly defined in relation with the research field.

The research questions of the thesis are as follows:

1. How do the vocational students evaluate the online e-learning platforms they used?
2. How effective do they consider e-learning compared to traditional class?
3. What do they think needs to be improved in both the platform architecture and the use of in-platform tools?
4. How do the teachers of PIVT's evaluate the online e-learning platforms they used?

They are systematical and lead the entire theoretical and empirical research in a well-structured manner.

The employed research methods and tools include literature review, questionnaires for teachers and students, and interviews with the same subjects in order to establish their views and opinions about online education in VET institutions.

Introduction ends with a description of the structure and content of the thesis.

Chapter One of the thesis provides a systematic review of ICT in education and distance education. The author properly describes the history of distant education and reveals the dynamic changes in educational landscape due to the development and upgrade of different technologies. The language is clear and coherent, the references are properly employed. The author derives from up-to-date literature to describe advantages and disadvantages of e-learning, ICT in education, and distant education.

The chapter clearly presents the knowledge and understanding of the author about the thesis topic and creates a solid grounds for the design of the empirical research.

In Chapter Two the author describes the idea of non-formal education in relation to vocational education and training and adult education. Considering the fact that non-formal education has different meanings depending on the national and/or systemic context, he employs a proper perspective for presenting and analyzing not only non-formal education per se, but non-formal education in its coexistence with adult education and vocational education and training.

The second part of the chapter present VET system in Greece and refers to adult education (part 3), where some specifics of the system are presented in relations to non-formal education and vocational education.

At the end of the chapter the author describes the situation in VET system during pandemic and combines the characteristics of distance education with the characteristics of VET, which create a proper foundation for the empirical research.

Chapter Three is more of a description of empirical research and could be considered too short and fragmented to be a chapter itself. It presents the research tools and the design of the study. The research approach, implemented by the author allows for a triangulation between quantitative and qualitative data. The questionnaires were filled by 774 respondents (students and teachers in VET institutions) and semi-structured interviews were conducted with 17 students and 17 teachers.

Chapter Four presents the results of the empirical analysis, both quantitative and qualitative. Compared to previous and the last chapter this one is quite extensive – more than 150 pages. Although the precision of the author and his desire to be explicit with the data could be admired, the way the data is presented does not support proper analysis and conclusions.

The first part of the chapter reveals the quantitative data, both in descriptive and in inferential manner. What is lacking here is detailed and wholesome conclusions, based on the data, regarding different subjects and their opinions about distance education and its effectiveness in VET institutions.

The second part of the chapter presents in a very detailed manner the results from the semi-structured interviews, with long citations. Again, a relevant conclusions regarding the research questions and in relation with the data from the questionnaires cannot be found, which will surely benefit the analysis and the thesis as a whole.

The manner of presenting the quantitative data in both tables and histograms makes the text harder to read and prevents the reader from seeing “the whole picture”. This applies also to the correlation data.

Chapter Five presents some conclusions and discussion, The author describes main conclusions about the views of respondents regarding distant education in VET system, along with some additional considerations to be taken into account in the future.

The author presents a list of 8 publications, relevant to the thesis topic. They reflect his work on the topic and make the results visible in different national and international journals and collections. The publication activity of the author is sufficient and present his engagement with adequate research activity throughout the PhD study period.

The candidate stated 6 scientific and 6 scientific-applied contributions. **I accept the contributions, as they reflect his work and results in a proper way. I specifically would like to point out the applied contributions regarding the practical state and challenges distant education poses in vocational education and possible practical solutions that the candidate derives from them. I believe that his work can greatly benefit the future educational policies in**

vocational education in Greece in the context of continuing digitalization of all fields of education and schooling.

4. Approbation of the results

The candidate's work, presented in his publications is referred and indexed in databases like Scopus, Web of Science and Springer. It has several citations. The results of the thesis empirical work provide a valuable insight into the difficulties and challenges faced by students and teachers during online education in vocation training institutions in Greece.

I can surely state that:

- a) the scientific works of the candidate meet the minimum national requirements (under Art. 2b, para. 2 and 3 of ADASRB*) and respectively to the additional requirements of Sofia University "St. Kliment Ohridski" for acquiring the educational and scientific degree "Doctor"/ scientific degree "Doctor of Science" in the scientific field and professional field of the procedure;
- b) the results presented by the candidate in the dissertation work and scientific works to it do not repeat such from previous procedures for acquiring a scientific title and academic position;
- c) there is no plagiarism proven in the legally established order in the submitted dissertation work and scientific papers under this procedure.

5. Qualities of the abstract

The abstract of the thesis reflects its structure and content in a proper manner and presents a clear and sufficient picture of main theoretical and empirical work of the candidate. It meets all the requirements for its preparation. Therefore, the abstract supplements the thesis and provides enough information about his results.

6. Critical notes and recommendations

The thesis has a clear object and a proper research design.

The thesis would greatly benefit if those more than 100 pages of graphs and tables are redacted in a way so the data is presented in a shorted manner and some relations and conclusions about those data are stated in the context of the thesis object and research question. This will reveal in a more clear manner the author's skills and competences not only to gather data but to derive some meaningful insights from them.

Chapter 3 and 4 can be united as they complement each other in a meaningful way. Still it is up to the author to make such a decision.

In Chapter 5 it would be nice to provide in a clear manner some answers to the research questions stated in the Introduction, upon which some better recommendations about future implementation of ICT and distance tools in VET system can be explained.

7. Conclusion

Having become acquainted with the PhD thesis presented in the procedure and the accompanying scientific papers and on the basis of the analysis of their importance and the scientific and applied contributions contained therein, **I confirm** that the presented PhD thesis and the scientific publications to it, as well as the quality and originality of the results and achievements presented in them, meet the requirements of the ADAS in the Republic of Bulgaria, the Rules for its Implementation and the corresponding Rules at the Sofia University “St. Kliment Ohridski” (FMI-SU) for acquisition by the candidate of educational and scientific degree “Doctor” in the Scientific field 1. Pedagogical Sciences, Professional field 1.3. Pedagogy of learning in....

In particular, the candidate meets the minimal national requirements in the professional field and no plagiarism has been detected in the scientific papers submitted for the competition.

Based on the above, **I strongly recommend** the scientific jury to award **Panagiotis Anagnostou** the educational and scientific degree “Doctor” in the Scientific field 1. Pedagogical Sciences, Professional field 1.3. Pedagogy of learning in....

Date: 03.06.2024

Reviewer:

/Assoc. Prof. Yonka Petrova Parvanova, PhD/

**ADASRB - Act on Development of the Academic Staff in the Republic of Bulgaria*