

OPINION

by **assoc. prof. Diyana Georgieva, PhD**

of a dissertation for the award of an educational and scientific degree "Doctor"

in the field of higher education 1. Pedagogical sciences

professional direction 1.2. *Pedagogy*

doctoral program *Special pedagogy*

Author: *Georgios Ioannis Tegos*

Topic: "The integration of information and communication technologies (ICT) in education and the role of school leadership in primary and secondary special educational institutions"

Research supervisor: *Prof. Neda Zlatinova Balkanska, PhD*

1. Administrative highlights of the competition

By order No. RD 38-276 /03.06.2024 r of the Rector of SU "St. Kliment Ohridski" I am included in the scientific jury of **Georgios Ioannis Tegos** in the procedure for the defense of a dissertation work to obtain the educational and scientific degree "Doctor". **Georgios Tegos** is a full-time doctoral student in professional field 1.2. *Pedagogy (Special Pedagogy)* in the Faculty of Educational Sciences and Arts.

2. Biographical presentation of the doctoral student

The educational profile of the doctoral student is distinguished by a diploma from a higher school in 2003; two bachelor's programs: *IT Applications in Management and Economics* (2008) and *Business Management, Business IT* (2012) and two master's programs: *Special Education* (2015) and *Educational Leadership & Management* (2018). In addition, the doctoral student has certificates of training in: ICT (levels B1 and B2), foreign language- English (C2), Braille and seminars in: Special Education (*Special Treatment and Education*) and Integrated education (*Integrated education, distinctness, acceptance, school incorporation*), as well as a specialization diploma in *Counseling and Guidance*.

The doctoral student has extensive professional experience as a special educator in information technology, with application to children and students with special educational and communicative needs. His professional business card includes various institutional destinations of realization, which allows him to meet with various violations and their manifestations, and provokes a constant search for non-standard solutions to overcome or reduce them by using ICT resources.

3. Relevance of the issue under consideration

Innovations in technology over the past decade generated tangible changes in the field of information and communication, as well as in the definition of literacy and its applications in the educational context of the 21st century. It is an obvious and widely accepted fact that learning and pedagogical literary achievements can no longer gravitate only around the domain of analog applications and algorithms. It is widely taught that contemporary students are encouraged to learn and develop their positive sides primarily through the use of approaches and practices involving digital technologies for retrieving and exchanging information. The mentioned facts give the scientific product presented by PhD student Tegosa a contemporary and modern sound.

4. Structure and content of the dissertation work

The evaluated dissertation has a volume of 232 pages, divided into an introduction, four chapters, a conclusion, a bibliography (242 titles: all in Latin), appendices (in English and in Greek) and contributory elements. Images supporting the presentation and interpretation of results are in the form of tables – 68 and figures – 67. The total number of 135 visuals is a reference to the PhD student's skill in ranking data for good quantitative analysis.

The introduction of the dissertation contains the arguments that have motivated the undertaking, organization and conduct of the experimental study, among which the insufficient presence of systematic observations and analyzes on the problem of the administration and application of ICT solutions in education and the continuing interest in their capacity for teaching, learning and therapy are the main dominant.

The first and second chapters represent an extensive analysis of the problem state in administrative, managerial and executive terms. The main emphasis is placed on the content, procedures, conditions, strategies for managing human resources in the field of education, among which the teachers occupy a special place. The main figures and their responsibilities in the administration of the school as a structural unit are highlighted, and the structure and role of the school leadership to maintain a high level of competitiveness and the management of the school unit, where the central point of *the leader behavior – staff commitment – school effectiveness* is formed, are priority areas of discussion. The benefits of an "inclusive classroom ideology" encountering barriers that seem to be persistent and insurmountable despite appeals to embrace difference and break down stigmas are analyzed. A logical continuation is the comments on the current state of special and inclusive education in the author's homeland. The main focus of attention is also the extensive research on the use of ICT in education as a means of inclusion of people with special educational needs. New teaching and learning practices are revealed that stimulate the progress of students with different skills and abilities, as one of the subjects of special education, and promote their functioning in the general education system. In the context of digital technologies, an inexhaustible arsenal of benefits is presented that they offer to all participants in inclusive processes. The need for serious training of teachers to skillfully operate with systems and algorithms, with a view to their effective integration into their teaching practice, remains a question to which the author of the dissertation gives an answer.

The third chapter presents the research design. Correct formulations have the *purpose, tasks and research questions* (6 in number). *Two hypotheses* are stated that await verification. *The formed sample* consists of 254 statistical units – individuals with different professional status: teachers, principals, vice-principals of primary and

secondary Greek special schools, students from the "Special Workshops for Vocational Training" in the city of Piraeus. A survey, a learning experiment and a control experiment are the *leading methods* selected for the purposes of the study. *The toolkit* includes 2 structured questionnaires. One is designed to extract information corresponding to the content of 5 of the research questions. The questionnaire contains 38 statements, divided into 5 sections and evaluated on a 5-point Likert scale. The second questionnaire, used by students with special educational needs, contains 20 questions, 10 of which are alternative (True/False) and 10 are multiple choice. The questions allow to take into account in a comparative plan the dynamics of the results achieved through the introduced application "Kahoot" and the use of traditional technologies for teaching and learning. *The statistical procedures* were performed by applying descriptive and inductive methods, with the production capabilities of the statistical program SPSS23.0.

The fourth chapter is devoted to an in-depth and comprehensive analysis of the results obtained during the research. They are divided into several sections. The first section is related to the extent to which ICT is integrated in Greek special primary and secondary schools. In the second, the factors, barriers and limitations that may demotivate the study participants to use ICT resources in their teaching practice are identified. The third section offers results that reveal respondents' attitudes about the application of ICT in a learning context. The fourth section introduces the reader to the results regarding the role of administrators in Greek special schools for the implementation of the digital resource in the practice of teaching and learning content. The influence of gender and level of preparation is discussed in the next section, where the differences found are not statistically significant. This is followed by results sections showing the advantages of ICT compared to traditional methods.

This part of the dissertation concludes with a discussion of the content of the research questions. The hypothesis of the unsatisfied degree of use of ICT as a component of the supportive environment is partially confirmed. The second hypothesis has full confirmation, which is a reference to the need to actively involve teachers in trainings offering digital knowledge.

The results of the research allow drawing an important conclusion for the administrative leadership's search for solutions regarding the formation of a digital culture among teachers by providing a digital infrastructure of which specialized training programs are an integral part – and all this with one goal – improving academic presentation of students.

5. Scientific-theoretical and practical-applied contributions

The dissertation work has its indisputable contributions in the theoretical and applied aspects, which, however, the doctoral student did not specify as formulations – nuance of conclusions creep into some of them. At the same time, in all the statements made (7) details crystallize that give the dissertation originality and completeness.

6. Abstract

The abstract presents the formal and substantive side of the dissertation work in a "reduced scale". The doctoral student has observed the sequence of the discourse and

presented in a synthesized version the components from which the reader draws information and reaches generalizations through the author's point of view.

7. Publications on the topic of the dissertation

The doctoral student has shared specific elements of the scientific work, systematized in 4 information sources, in the period 2022 -2023. The published texts are in English and with the independent participation of their author.

8. Personal impressions

My personal impression of the author's knowledge and awareness is that he is well versed in the issues developed primarily by modern researchers. Skillfully uses existing scientific achievements as a springboard for conceptualizing his research, to which he gives his own idea.

9. Notes and Recommendations

Given the status of the dissertation as a scientific product with prominent applied parameters and expected effects in contemporary educational practice, I recommend popularization of the empirical material outside the framework of Bulgarian periodicals, as well as its presentation in studies or a monograph.

10. Conclusion

The dissertation work of PhD student Georgios Tegos offers facts significant for theory and practice, which I value as a substantial contribution in a pedagogical context. Their presentation is in accordance with the normative documents – the Law on the Development of the Academic Staff in the Republic of Bulgaria (LDASRB) and the Regulations for the Implementation of LDASRB.

Given the innovative ideas of the doctoral student, realized in high-value scientific and applied research, I confidently give my positive vote and propose to the respected scientific jury **to award the educational and scientific degree "Doctor" to Georgios Ioannis Tegos** in the field of higher education 1. Pedagogical Sciences, Professional direction 1.2. Pedagogy, Doctoral program *Special pedagogy*.

24.08.2024

Prepared the opinion:

/Assoc. prof. Diyana Georgieva, PhD/