

POSITION

by Associate professor Penka Shapkova, PhD

about a dissertation on the topic: **"Using information and communication technologies in teaching students with ADHD in the Greek language"** for the acquisition of an educational and scientific degree "doctor" in the doctoral program Special pedagogy (in English), in the field of higher education 1. Pedagogical sciences, professional direction 1.2 Pedagogy

Doctoral student: Maria Manarioti

Supervisor: prof. Neda Balkanska, PhD

1. General presentation of the procedure and the PhD student

The documents and materials that are submitted for review are in full compliance with the ZEASORB and the Regulations on the terms and conditions for acquiring scientific degrees and holding academic positions at SU.

2. Evaluation of the dissertation work

2.1. Relevance of the problem and dissertation ability of the topic: The dissertation focuses on a current topic in the context of contemporary understandings and philosophy of learning and educating children with neurodevelopmental disorders. I will emphasize that such developments are too few in the scientific field of special pedagogy in our country and globally. I define the topic as dissertable, especially since the mechanisms for applying and adapting ICT in the education of children with special educational needs are complex and insufficiently studied and understood.

3. Structure and content of the dissertation:

The presented work has a volume of 138 pages. It is structured with an introduction, 4 chapters, a conclusion, a bibliographic reference, containing more than 80 literary sources in Latin, most of which were published in the last 10-15 years. At the end of the work, the contributions are indicated moments and applications.

In **the introductory part in** the dissertation, the doctoral student emphasizes the importance of the research problem, as well as the goals and tasks of the research.

The theoretical analysis of the problem is constructed based on the interpretation of various literary sources and is presented through two chapters.

In **first chapter** the doctoral student interprets the concept of ADHD (attention deficit and/or hyperactivity disorder), describes the etiology and etiopathogenesis of this type of neuropsychological development disorder in childhood. The author analyzes the essence and importance of various therapeutic approaches applied in the work with children with ADHD, as well as the importance of the application of ICT in pedagogical practice. A special place is devoted to the description of curricula in Modern Greek for the primary school.

Second chapter of the dissertation development is entitled: Modern trends in the education of children with ADHD. The PhD student analyzes the different components of the language system and their characteristics in children with ADHD. The factors affecting language development in this group of children were analyzed.

It highlights the role of the primary teacher in the process of identifying cases of ADHD, as well as the importance of educational resources to support learning and personal development, as well as overcoming challenges in the classroom for children with this type of disorder. Maria Manarioti thoroughly analyzes the role of new educational approaches, such as computer applications and software programs and assistive technologies applied in the education of children with ADHD, with the aim of improving children's working memory, attention and academic success.

The doctoral student presents interesting examples from pedagogical practice, such as the inclusion of word processing computer programs for students with writing difficulties and also describes electronic educational games, including multimedia methods of interaction and supporting alternative learning styles for children in an inclusive environment. The doctoral student supports the thesis that: Internet-based education allows students with SEN to be active and autonomous, and the variety of e-learning tools allows information to be presented according to the type of student's needs.

Third chapter of the dissertation contains the research methodology. The goal, tasks and hypotheses of the empirical study are formulated very precisely and clearly. The doctoral student clearly and consistently presents the research methods of the toolkit, which is based on computer programs and training software products applied in Greece.

The research sample is described here, which consists of 100 students attending primary schools in the prefectures of Northern Greece: Thessaloniki, Rhodope, Xanthi, Kavala and Serres, with 8 students from the speech therapy center in Kavala participating, 10 students from the Center for creative employment for children in Xanthi, 15 students from the center for occupational therapy in Thessaloniki, 7 students from the Center for creative employment for children in Komotini and 10 students from the speech therapy center in the city of Ceres.

The students were divided into two groups selected by the simple random sampling method - the experimental group of 50 students with ADHD and the control group of 50 students without ADHD.

As a diagnostic procedure for the purpose of the empirical study, one of the most popular software Scratch, used for both programming and robotics in primary and secondary schools in Greece, was used.

Data were analyzed using SPSS-ANOVA. Descriptive statistical analysis was applied to analyze the experimental data, the results of which are presented by colored graphs. The purpose of descriptive statistics is to collect, organize, and summarize data in an easy-to-understand format. The results of the empirical study are well illustrated by diagrams with a clear sequence. The PhD student makes a consistent quantitative and qualitative analysis of the research data.

In conclusion, the contributing points of the dissertation work are indicated and conclusions essential for educational practice are made.

4. Evaluation of abstract and publications

The abstract has a volume of 50 pages. In technical, structural and linguistic terms, the abstract should be specified. I recommend refining and unifying the font, namely Times New Roman. The publications presented by the doctoral student are 4 authors on the topic of the dissertation.

5. Critical notes, recommendations and questions:

- In general, the macrostructure of the dissertation work is in accordance with the traditional standards and norms of modern scientific research, but it needs refinement in terms of technical, structural and content. I recommend to specify and unify the font, namely Times New Roman;
- Page numbering should start from the introductory part. Applications are not numbered.
- The first chapter lacks a more in-depth analysis of the main characteristics of the RDVH condition. In my opinion, more attention should be paid here to the analysis of the main characteristics of social-emotional functioning and behavior in children with this disorder of neuropsychic development. In the first chapter, there are texts related to the presentation of learning models that are not popular and applied to children with ADHD in pedagogical practice, which is why I find them redundant and creating volume, especially since their content does not correspond to the topic of the dissertation.
- The doctoral student emphasized the quantitative processing of the survey data, but the qualitative analysis performed could be more in-depth;
- The number of conclusions is usually equal to the number of tasks achieved and therefore it would be good to specify them further.

Questions:

1. How do the two aspects - language and cognition - reflect on the academic skills and achievements of children with ADHD?
2. What do you think are the strengths of learning through the application of new technologies for children with ADHD?

Conclusion:

Overall, Maria Manariotti's dissertation is very intelligently written, with well-defined contributions, some of which outline new educational trajectories for children with ADHD.

Regardless of the comments and recommendations made, I give my positive assessment of the presented dissertation work for the achieved results and the demonstrated scientific contributions, and I propose to the honorable scientific jury to award the scientific degree "doctor" in Special Pedagogy to Maria Manarioti!

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Prepared the opinion: Associate professor Penka Shapkova, PhD