

REVIEW

from prof. Dora Levterova – Gadjalova, D.Sc.

(PLOVDIV UNIVERSIY "PAISIUS HILENDARSKI")

of the materials submitted for participation in the competition

to occupy the academic position of **"associate professor"**

at the Paisii Hilendarski University of Plovdiv

by: field of higher education 1. Pedagogical sciences

professional direction 1.2. Pedagogy

(Special pedagogy - assistive technologies)

In the competition for "docent", announced in the State Gazette, no. 92 of 18.11.2022 and on the website of the University of Plovdiv "Paisiy Hilendarski" for the needs of the Department of Pedagogy and Education Management at the Faculty of Pedagogy as a candidate participates ch. Assistant Professor Vanya Angelova Sivakova, Ph.D., from the Faculty of Pedagogy of the Plovdiv University "Paisii Hilendarski".

1. General presentation of the received materials

By order No. P21-73 dated 18.01.2023 of the Rector of the Plovdiv University "Paisiy Hilendarski" (PU), I have been appointed as a member of the scientific jury of a competition for the academic position of "associate professor" at the PU "Paisiy Hilendarski" under a field of higher education 1. Pedagogical sciences, professional direction 1.2. Pedagogy (Special pedagogy - assistive technologies), announced for the needs of the Department of Pedagogy and Education Management at the Faculty of Education.

To participate in the announced competition, she submitted documents as the only candidate, Chief Assistant. Dr. Vanya Angelova Sivakova from PU "Paisiy Hilendarski".

Presented by Chief Assistant Dr. Vanya Angelova Sivakova, a set of paper materials is in accordance with the Rules for the Development of the Academic Staff of the PU, and includes the required documents such as applications, curriculum vitae, copies of diplomas, scientific works with the corresponding separation protocols, references, annotations, certificates, self-assessments, official notes.

The candidate Vanya Sivakova submitted a total of 22 scientific works, of which 2 studies, 4 monographs, one of which is the habilitation work, 1 textbook and 1 study aid in co-authorship and a list of 16 research projects. 21 scientific papers that are not the dissertation are accepted for review and 2 teaching aids and 21 research projects are counted in the final evaluation. A scientific work outside of the competition's issues is not reviewed. The distribution of the scientific works by relevant

headings, in the country and abroad, is as follows: 20 scientific works in Bulgarian and 4 scientific works in English.

The minimum required points by groups of indicators for the academic position "associate professor" and the actual number of points of the candidate have been met ch. assistant Dr. Vanya Sivakova, reflected in Table 1., from which it is visible that with the minimum required number of points of 400, Dr. Vanya Sivakova has twice as many.

Table 1.

A group of metrics	Minimum number of points for associate professor	Candidate's actual score
A	50	50
Б	–	–
B	100	100
Г	200	495,5
Д	50	211,6
E	–	–
Total points:	400	857,1

I submit a reduction of an article [5], which I do not review due to exceeding 30% of the text present in another scientific material. Thus, the total number of points becomes 827.1 points, which is also a sufficient number of points, according to the required minimum number of points for an associate professor.

2. Brief biographical data of the candidate

Vanya Sivakova, chief assistant professor, graduated from the Faculty of Mathematics and Informatics of the University of Plovdiv in 2004, since 2010 she holds a doctorate in Special Education with the topic of her dissertation: "Virtual diagnosis and counseling of children with stuttering". She was a part-time assistant in informatics: two years at the Faculty of Mathematics and Informatics of the University of Plovdiv and one year at the College of Economics and Administration, four years as a part-time assistant in special pedagogy at the Faculty of Pedagogy of the University of Plovdiv. Since 2011, he has been an assistant in special pedagogy, and since 2012 he has been a chief assistant in special pedagogy in the Department of "Pedagogy and Education Management". Her work experience from 2007 to now is in the Department of "Pedagogy and Education Management". He is fluent in English and at a basic level in Russian.

3. General characteristics of the applicant's activity.

Evaluation of educational and pedagogical activity and preparation of the candidate.

Sivakova's educational employment is related to the teaching of academic disciplines: Additional support for personal development, Cloud technologies for children/students with special educational needs, Statistical methods in psychology - 1 and 2 parts, Inclusive education in "Bachelor" and academic disciplines: Alternative intervention strategies for language-speech disorders, Universal design for communication disorders, Information technologies for special educational needs, Pedagogy of special needs, Psychological research and evaluation in the Master's Program. She has developed 8 study programs for the Bachelor's degree program and 14 Master's degree programs, as well as 4 training programs for qualification courses at the Department for Qualification and Professional Development of Pedagogical Specialists at Paisii Hilendarski – Plovdiv University. She supervised 19 successfully defended diploma students, organized the practical training of students majoring in "Special Pedagogy", and advised students and Ph.D. students in conducting empirical research for statistical analysis and interpretation of the obtained data and results.

Additional requirements for the educational activity are met by the candidate in the competition. As can be seen from Table 2., Vanya Sivakova has a total of 177.4 points for educational activity with a requirement for a minimum number of 30.

Table 2.

Teaching experience at a university during the last active year of the candidate (minimum number of points – 30)			
		Candidate's actual score	
2.1 Teaching employment	1 point for every 10 hours (equalized in exercises)	645 hours of exercises for the year	64,5
2.2. Extracurricular employment	0.5 point for every 10 hours	58 hours	2,9
2.3. Curriculum development	5 т.	22 pieces	110
Total			177,4

Evaluation of the candidate's scientific and scientific-applied activity

For participation in the competition, head assistant Vanya Sivakova, Ph. D. presents 22 scientific papers: 4 monographs; 2 studios; 16 scientific articles, of which 11 in Bulgarian, 5 in English; 1 textbook and 1 study aid. All were developed and published after acquiring the academic position of "principal assistant" and after awarding the "Ph.D.". The scientific production submitted for participation in the competition has a theoretical-applied nature and is in the field of special and inclusive education and assistive technologies.

The habilitation thesis "Assisting and information technologies in education" [1], with a volume of 212 pages, was developed in accordance with prospective trends for educational systems. Emphasis is placed on the philosophy and principles of inclusive education; of universal design for learning and its relationship with digital technology application. Models of application of various types of assistive technologies in inclusive education for children/students with special educational needs related to primary literacy have been developed in detail and analytically: reading, writing and performing mathematical operations; as well as with the formation of soft competences: organization and management of information and time; assessment of assistive technology needs to assess school difficulties in specific areas. An in-depth interpretation of the model "student, environment, learning tasks, means" is made in assessing the needs of assistive technologies. In the entire habilitation work, the academic suggestion to take into account the strengths and problems of students with school difficulties of the used assistive technologies is introduced. A chronological, definitive and classification analysis of assistive technologies is presented, with a successful attempt to interpret each assistive technology with theoretical and scientific justification and practical applicability. The description of the functional possibilities of Bulgarian software applications in education makes a positive impression. Also included is a look at the development of mobile and web-based applications, educational software, and cloud technologies. Although limited, there is still a focus on assistive robots, which have an extremely supportive role in supporting the development of executive functions, social skills and self-care of children/students with special educational needs and students with school difficulties.

Another submitted monograph for participation in the competition is "The Inclusive Classroom in an Educational Environment" [2] with a volume of 184 pages. Concepts of inclusive education, separate types of inclusion: physical, academic and social are analyzed. An in-depth interpretation is given to spatial inclusive design with reference to the issue of access and accessibility of materials and information. Inclusive classroom strategies are outlined to prepare the environment to encourage community and learning. The adaptation of learning content is examined through the lens of the use of assistive technologies in the classroom. The role of the teacher's assistant, of current teaching methods such as joint teaching with the seven popular models of its application, is noted. The 8 UNESCO indicators for the development of the inclusive classroom are detailed. The monograph aims to test and create a model for an inclusive classroom. An author's questionnaire (60 questions) was created and answers of 189 teachers were analyzed. A model of inclusive classroom is presented with criteria used: physical-spatial, academic and social inclusion.

Among the monographic works submitted for participation in the competition is the monograph "Correlation and Regression Analysis in the Behavioral and Social Sciences" [3] with a volume of

144 pages. The emphasis of the monograph is on the methodological aspects of the application of electronic spreadsheets. The presented algorithms for conducting the analyzes in the spreadsheets are described in detail and supported with screens from the MS Excel system. Although the topic of the monograph is not directly related to the announced competition, it is accepted for review, since its content has a gravitating applicability, especially when conducting statistical analyzes of issues in the field of special pedagogy and the used assistive technologies.

The fourth monograph submitted for participation in the competition is "Special education and e-learning" [4] with a volume of 238 pages and is co-authored. A separate protocol between the three authors is presented, from which it is clear that Dr. Sivakova has developed 127 pages, which are explicitly indicated by the topic: E-learning of persons with special educational needs: Special educational needs and accessibility, Accessibility tools, Research in the field, IT in learning disabilities, E-courses. It is noteworthy that the term "learning difficulties" is used regarding specific learning disabilities, although it is noted that the term is debatable as usage in the country at the time of publication of the monograph preferred an older term. A large part of the targeted software products and electronic systems (nine years after the publication of the monograph and the rapid development of digital technologies today) are already interesting primarily in historical terms. The monograph presents the functionality of two software products for creating test and didactic materials useful for people with specific learning disabilities: HotPotatoes and Quandary. Interpretations of the application of software products in the preparation of didactic materials are introduced in the process of correcting learning disabilities [4].

For participation in the competition, Dr. Sivakova presented two studies [19] and [20], both of which were co-authored. One studio is devoted to the role of distance learning in creating an inclusive environment. Empirical research has explored the possibility of implementing inclusive education in a digital environment, specifying advantages and weaknesses, as well as the competencies of learners and teachers in a digital environment [19]. The other study [20] interpreted approaches for the automated generation of phonetic and cognitive test units. Test units have been created that are suitable for individuals with special educational needs. Popular systems for creating electronic test items are presented with examples of typical test items in the areas of phonics and cognitive skills. An author system for their automated generation is presented.

Three articles are presented in refereed and indexed editions. One of the presented articles [5] is not reviewed, as it is a summary of the presented monograph [2]. One of the articles presents theoretical analyzes and is devoted to the use of cloud technologies to provide access to inclusive education [6], the benefits of cloud-based educational technologies as assistive technologies for children with special educational needs [8]. The fourth presented article in a refereed edition is

dedicated to gender equality with interpreted results of a study conducted at Plovdiv University [7], the article is co-authored and no separate protocol is presented.

Sivakova presents 10 articles and reports published in non-refereed peer-reviewed journals or published in edited collective volumes. Six of the articles are independent and four are co-authored. Their topics can be grouped into three areas of scientific research:

- web-based systems for automated generation and maintenance of test units for diagnosis and development of cognitive skills [10], for linguistic knowledge with a system prototype [12], for maintaining a dynamic database and automated generation of test units for assessment of cognitive skills and language knowledge using specially created automatic filling of some fields when creating records in databases using algorithms for phonetic transcription, separation of rhyming forms and syllables of Bulgarian words. It is possible to generate phonetic test units of different types through automated queries to databases with variation of certain attributes [11];

- well-being and identity, interpreted through several trajectories: social and psychological well-being and the connection with gratitude and happiness in people with mental retardation [13], Internet - identity [14], social identity in development and change in different social groups [15], personal identity and life satisfaction in children with intellectual disabilities [17], psychological, subjective, personal and social well-being [18];

- accessibility of electronic resources and access to education for visual impairments [9], and for counseling children with stuttering [16].

The candidate in the competition, Sivakova, Ph.D., participated in an author's collective in writing one textbook [21] and one study aid [22]. They have independently developed 2 chapters with a total of 52 pages and 3 chapters with a total of 25 pages, respectively. The developed problem-tics is in the field of language-speech disorders and strategies, models, and rules for working with children and students with language-speech disorders in communication and in the process of their education.

Contributions (scientific, scientific-applied, applied) and citations

The scientific production presented for participation in the competition by. Sivakova is in the field of special and inclusive education and assistive technologies.

The contributions are the personal work of. Sivakova and can be shown as:

Contributions to scientific theory:

1. analyzing definitions, classifications and application of assistive and information technologies in the process of training people with disabilities and children/students with special educational needs;

2. interpretation of the issues of inclusive education and the inclusive classroom;

3. narrative and comparative analyzes regarding language and speech disorders;
4. developing the issue of well-being for children with intellectual disabilities;
5. development of themes related to the identity of children/students with special educational needs;
6. interpretation of the space of satisfaction and gender equality in an academic environment.

The first two theoretical contributions complete the conceptual framework of digitization of inclusive education. The third theoretical contribution constructs a clear vision of language-speech disorders and the assistive technologies used for them in an educational environment. The fourth, fifth, and sixth theoretical contributions articulate the complexity of inclusive processes in education by embracing difference in the context of diverse

Contributions of a practical-applied nature:

1. application of assistive and information technologies in education and in special pedagogy;
2. application of information technologies in the search for correlational dependencies and modeling of the relationship between the investigated quantities (correlation and regression analysis) when conducting an analysis of the results of empirical research in the field of behavioral and social sciences;
3. application of automated generation of test units for diagnosis, assessment and development of cognitive skills, and assessment of language knowledge in the field of special pedagogy.

The first of the practical-applied contributions prove with new studies and supporting facts essential and rapidly developing areas in educational systems and educational spaces.

The second practical contribution complements the statistical applications of analysis in the behavioral and social sciences.

The third practical-applied contribution carries the charge of new technological applications for children/students with special educational needs.

The total number of citations and reviews of Dr. Vanya Sivakova is 21. The number of citations or reviews in scientific publications referenced and indexed in world-famous databases is 8, the number of citations in monographs and collective volumes with the scientific review is 11, and 2 is the number of citations in non-refereed peer-reviewed journals. The citations and references to Dr. Sivakova's scientific works are extensive and substantive and were made in the period 2015-2022.

4. Evaluation of the candidate's personal contribution.

I accept that the formulated contributions in the interpreted publications of Vanya Sivakova, Ph. D. are her personal work and her personal merit.

5. Critical remarks and recommendations

I recommend Sivakova, Ph.D. to continue developing the issue of assistive and adaptive technologies in the education of children/students with special educational needs and in the development of inclusive digital education.

6. Personal impressions

My personal impressions of Sivakova, Ph.D. are excellent. I have known her since the period in when she was a doctoral student under my scientific supervision. For the entire period from the beginning of her training at her "Ph.D. " until now, her academic development is visible: from a timid and uncertain researcher to a proof-expressed readiness to become an associate professor with publications in renowned scientific publications, with socially respectful acceptance by students and colleagues. Dr. Sivakova is an organized, responsible, and searching nature, a promising scientist with creative ideas and concepts.

CONCLUSION

The documents and materials presented by chief assistant professor Vanya Angelova Sivakova, Ph.D. meet all the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria (ZRASRB), the Regulations for the Implementation of the ZRASRB and the relevant Regulations of PU "Paisiy Hilendarski".

The candidate in the competition has submitted a sufficient number of scientific works published after the materials used in the defense of the ONS "Ph.D." and the competition for a chief assistant. The candidate's works contain original scientific and applied contributions that have received international recognition, as a representative part of them has been published in journals and scientific collections issued by international academic publishing houses. Her theoretical developments have practical applicability, and some of them are directly oriented to academic work. Vanya Sivakova's scientific and teaching qualifications are unquestionable.

The achievements of chief assistant professor Vanya Sivakova, Ph.D. the results in the educational and scientific research activities fully correspond to the minimum national and additional requirements of the Faculty of Education, adopted in connection with the Rules of the PU for the application of the ZRASRB.

After getting acquainted with the materials and scientific works presented in the competition, analyzing their significance and the scientific, scientific-applied, and applied contributions contained in them, I find it reasonable to give my positive assessment and to recommend the Scientific Jury to

prepare a report-proposal to the Faculty council of the Faculty of Pedagogy for the election of the head assistant professor, Vanya Sivakova, Ph.D. in the academic position of "associate professor" at PU "Paisii Hilendarski" in field of higher education 1. Pedagogical sciences, professional direction 1.2. Pedagogy (Special pedagogy - assistive technologies).

15.03.2023 г.

Reviewer:

(prof. Dora Levterova-Gadjalova, D.Sc.)