# REVIEW

By

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Of Scientific Works Presented

In Relation with Participation in a Contest for Occupying the Academic Position of "associate professor" at Plovdiv University "Paisii Hilendarski"

Under Higher Education Area: 1. Pedagogical Sciences,

Professional Field: 1.3. Pedagogy of Teaching

(Methodology of training in information technology and working in a digital environment)

In the competition for "associate professor", announced in the State Gazette, no. 39 of 2.05.2023 and on the website of Plovdiv University "Paisii Hilendarski" for the needs of the "Elementary School Pedagogy" Department at the Faculty of Pedagogy of the PU, as a candidate Head assistant professor Dr. Vilislav Ivanov Radev from the same department.

## 1. Summary of the presented materials

By order No. PD-21-1418 of 30.06.2023 of the Rector of the Plovdiv University "Paisii 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 in the field of higher education 1. Pedagogical sciences, professional direction 1.3. Pedagogy of training in ... (Methodology of training in information technology and working in a digital environment), announced for the needs of the "Primary School Pedagogy" department at the Faculty of Education.

Only one candidate has submitted documents for participation in the contest announced: Head assistant Dr. Vilislav Ivanov Radev from PU "Paisii Hilendarski".

The set of materials submitted by Head assistant Dr. Vilislav Ivanov Radev in electronic form complies with the Regulations on the Academic Staff Development of PU and includes the following documents:

- application form to the Rector for admission to the contest;
- CV in EU format;
- diplomas for MSc. educational-qualification degree;
- diploma for PhD educational and scientific degree;
- list of scientific works and their copies;

- copies of scientific works;
- list of citations:
- certificate of compliance with the minimum national and additional faculty requirements;
- annotations of the materials under Art. 65. from RDASPU (in Bulgarian and English);
- self-assessment of contributions;
- declaration of originality and authenticity of the attached documents;
- certificate of work experience;
- documents for academic work;
- documents for research work;
- documents according to the additional requirements of the Faculty of Education;
- other documents.

The candidate - Head assistant professor Dr. Vilislav Ivanov Radev has submitted a total of 14 scientific works, of which 12 articles, 1 monograph and 1 book, based on a defended dissertation. All scientific works submitted for the competition are accepted for review. The distribution of scientific works by relevant headings, in the country and abroad, is as follows: 3 articles at conferences abroad and 9 articles in journals and proceedings of conferences in Bulgaria, one of the conferences being international. 5 of the articles are in issues referred and indexed in Web of Science

#### 2. Brief biographical information about the candidate

Vilislav Radev was born in the city of Plovdiv on 23.07.1985. In 2008, at "Paisiy Hilendarski" University of Plovdiv, he obtained a Bachelor's degree in "Mathematics and Informatics", and a year later a Master's degree in "Business Informatics with English". In the period 2010-2015, Vilislav Radev studied in the doctoral program "Methodology of training in informatics and information technologies". He defended a doctorate degree in Professional Field: 1.3 in 2015, after a defended dissertation on the topic "Application of information technologies in the teaching of discrete mathematics at school" in PU.

From 2008 to 2010, Radev was a system administrator of a university computer network at PU, and in 1996 he began his academic career at Plovdiv University "Paisii Hilendarski", moving from "part-time assistant professor" in 2010, "assistant professor" in 2016 and "head assistant professor" "from 2018 until now.

# 3. Summary characteristic of candidate's activities

Assessment of the candidate's pedagogical and educational activity

Head assistant professor Dr. Vilislav Ivanov Radev has over 13 years of teaching experience. He conducts lectures, seminars and laboratory exercises for "bachelor" and "master's" students of the Academy of Arts and Sciences in disciplines such as "Information and communication technologies in education and work in a digital environment", "Mathematics" - part 1 and 2, "Teaching methodology on computer modeling" and others.

Head assistant professor Dr. Vilislav Radev has developed curricula for the curricula of the specialties - NUP, NUPCHE, PUP, PUPCHE, PNUP, Pedagogy, Special Pedagogy, Social Pedagogy, etc. So far, he has been the supervisor of 6 graduate students.

Assessment of the candidate's scientific-research activity

The candidate submitted a total of 14 scientific papers - 1 monograph, 1 book, 8 articles in Bulgarian, 4 articles in English. 14 scientific papers (13 independent and 1 co-authored) are accepted for review in the final evaluation, as well as 6 internal university research projects in which the candidate participated. One of the presented articles is co-authored, and all other works are independent. The candidate actively participates in international forums and publishes his results in publications indexed and referenced in global databases with scientific information. Head assistant professor Dr. Vilislav Ivanov Radev has participated with reports in 6 prestigious forums at the national and international level. Of them, 3 are abroad.

The scientific works submitted for the competition mainly concern particular methodological problems aimed at the application of information technologies in education at the primary school. We can classify the content and developed ideas in the proposed scientific works, according to the author's proposal and observing the numbering of the proposed works, in the following thematic areas:

- 1. Research and development related to applications of information technology in learning in the virtual classroom using electronic textbooks: [8; 9; 10].
- 2. Research and development related to the use of information and communication technologies in education and the creation of auxiliary digital resources in mathematics at the primary stage of education and preschool age: [1; 3; 4; 5; 6; 7; 8; 11; 12; 13; 14].

3. Developments related to the development of mathematical competences in discrete mathematics with the help of information technologies: [2].

### Contributions and citations

The main contributions of Head Assistant Professor Dr. Vilislav Radev we can synthesize as follows:

#### Scientific con

- Some aspects of the application of modern information technologies and educational software products as a means of teaching mathematics in primary school were investigated (they were mainly implemented in the publications of Areas 1 and 2).
  - Scientific and Applied contributions
- The opportunities, advantages and disadvantages of conference and control technologies exercised on training through the virtual classroom are considered and analyzed. (They are mainly in publications from area 1).
- Ways to use e-textbooks during training. Emphasis is placed on their preparation and organization of the lesson and the learning process. The similarities and differences between the electronic textbook and the paper are considered. (They are mainly implemented in publications in areas 1 and 2).
- The modern trends in the development of mathematical competences in discrete mathematics are presented with the help of information technology (realized mainly in publications from the area 3).

## Applied contributions

- Specialized software is considered and the involvement of children with computer culture is presented, which is an essential part of the modern technical culture of man. The areas of competence in the study of computer modeling in the Algorithms area are discussed and the results of the training are shown (they are mainly in publications in areas 1 and 2).
- A system and technology for the study of mathematics dedicated to the implementation of information technology has been developed and presented in the

creation of training games to acquire new knowledge in elementary school (they are mainly in publications in area 2).

The works presented are of strong applied focus, and the presented good practices and didactic technologies can be useful to students, techniques, teachers and authors of textbooks.

We will note the monograph of Head Assistant Professor Dr. Vilislav Radev "Some Applications of Block Programming in Mathematics Training in Second Class", published in 2023 at the University Paisii Hilendarski University Publishing House. It presents a set of animated modules implemented through Scratch based on second -grade mathematics educational content. The book is intended for educators using information technology as an aid to illustrate the learning material in mathematics classes.

The articles "Adding and subtracting the numbers up to 1000 without passing through Scratch" and "Confirmation of the acquired knowledge to recognize the geometric figure with the help of information technology" are published in the magazine "Pedagogy" and present in a popular form the ideas of the author for the author of Applying games in mathematics training.

The applicant has submitted a report on 22 cited. All the quotes noticed are by Bulgarian authors and are in pedagogical magazines, conferences, monographs and books. The cited provided are mainly from 2021 and 2022. Seven of the citation is in the publications indexed in the world's scientific information bases.

The quantitative indicators of the submitted materials meet and exceed the requirements of the Academic Staff Development Act in the Republic of Bulgaria.

#### 4. Assessment of the candidate's personal contribution

I have no reason to believe that the scientific works provided are not the candidate's personal work. The works show the author's style and ideas of Head assistant Prof. Dr. Radev. I believe that the contributions and results described are the personal work of the author.

#### 5. Critical remarks and recommendations

The scientific production provided for participation in the competition does not contain significant weaknesses to downplay its merits. However, I recommend that a candidate eliminates the available technical errors and inaccuracies in a timely manner, arrange the literature to the accepted standards and to write the range of pages, when describing articles in journals.

As a recommendation, I can point out that it is appropriate for the applicant to expand his participation international educational projects.

# 6. Personal impression

I do not personally know Vilislav Ivanov Radev, but his publications present him as a researcher actively implementing his results in practice.

### **CONCLUSION**

The documents and materials presented by Head assistant professor Dr. Vilislav Ivanov Radev comply with all the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria, the Regulations on its implementation, and the respective PU Paisii Hilendarski Regulations.

The candidate in the contest has presented a significant number of scientific materials, published after the materials used for the PhD educational-scientific degree defense and the contest for acquiring the academic position of 'associate professor'. The candidate's work contains original scientific and applied contributions that have been granted recognition and a considerable part of them are published in scientific journals and editions by national and international academic publishers. The candidate's theoretical elaborations have practical applicability and part of the work is closely directed to teaching and education. The scientific and lecturer qualification of Head assistant professor Dr. Vilislav Ivanov Radev is undeniable.

The candidate complies with the minimum national requirements for occupying the academic position of "associate professor" in Professional Field 1.3.

I have no doubts for plagiarism in the submitted scientific work.

After reviewing the materials and scientific works presented for the contest and analyzing their significance and the scientific, scientific-applied and applied contributions they contain I find it justified to give my positive assessment and to recommend to the Scientific Jury to prepare a report-proposal to the Faculty of Pedagogy Council to appoint Head assistant professor Dr. Vilislav Ivanov Radev to the academic position "associate professor" at PU Paisii Hilendarski under Professional Field 1.3. Pedagogy of Teaching (Methodology of training in information technology and working in a digital environment).

23.08.2023 г. Reviewer:

/ Prof. DSc. Nataliya Pavlova /