

## OPINION

By Gabriela Nikolova Kirova, Assoc. Prof. in Professional Field 1.3. Pedagogy of... (Methodology of teaching Mathematics at primary school), PhD in Professional Field 1.3. Pedagogy of... (Methodology of teaching Mathematics at primary school); Sofia University "St. Kliment Ohridski", Faculty of Education Sciences and Arts

**regarding** a procedure for the academic position of "Associate Professor" in area of Higher Education 1. Pedagogy, Professional Field 1.3. Pedagogy of... (Methodology of teaching Mathematics at primary school) for the needs of the Faculty of Education at Konstantin Preslavsky University of Shumen, announced in the State Gazette, issue 4 / 14.01.2020, with one candidate, Kalina Ivanova Aleksieva, PhD in Professional Field 1.3. Pedagogy of... (Methodology of teaching Mathematics at primary school)

This opinion was written in my capacity as a member of the Scientific Jury for a procedure for an associate professor's position - on the basis of Order No. ПД-16-016 / 10.03.2020 by the Rector of Shumen University, announced in the State Gazette, issue 4 / 14.01.2020, by decision of the Faculty of Education (Minutes No. FD-02-07 / 24.02.2020) and in accordance with Art. 69, para. 1 and para. 2 of the Rules for the Development of the Academic Staff at Konstantin Preslavsky University of Shumen and Art. 25 of the Academic Staff Development Act of the Republic of Bulgaria.

### **Evaluation of the candidate's research**

#### **1. Compliance with the minimum national requirements and the supplementary requirements of Konstantin Preslavsky University of Shumen**

The opinion was written on the basis of documents submitted for the procedure, announced in the State Gazette, issue 4 of January 14, 2020. The submitted documents of the candidate - Kalina Ivanova Aleksieva, PhD meet the requirements of ZRASRB, PPZRASRB and the Rules for the development of the academic staff at Shumen University.

The candidate Kalina Ivanova Aleksieva has a PhD, awarded to her after defending the thesis entitled: "Alexander Madzharov's Ideas in the Context of Contemporary Education in Mathematics" in the area of higher education 1. Pedagogy, Professional Field 1.3. Pedagogy of... (Methodology of teaching Mathematics at primary school) on September 28, 2018 at Konstantin Preslavsky University of Shumen.

She has submitted for the procedure a habilitation work, as well as one book, one study and 27 scientific articles. With the abovementioned publications and citations, Dr. Kalina Ivanova Aleksieva meets the minimum national requirements for the position of Associate Professor in the area of higher education 1. Pedagogy, Professional Field 1.3. Pedagogy of... (Methodology of teaching Mathematics at primary school) with a total of 441.65 points (minimum 400 points are required). The overall research and teaching activity of the candidate Kalina Alexieva meet the additional indicators under Art. 57a, para. 2 of the PPZRASRB. The forms and documents are completed and provide the necessary information. The requirements for bibliographic description of the publications and citations have been met.

## **2. The candidate's research and contribution**

Senior Lecturer Kalina Aleksieva, PhD, applied for the academic position of Associate Professor presenting 30 publications, namely:

- 1 habilitation work – a monograph;
- 1 published book – a students' guide;
- 1 study published in an edited collective volume;
- 27 articles, of which in 9 are co-authored; she is the only author of the remaining 18.

During the period after the defense of her doctoral dissertation, Dr. Kalina Aleksieva, continued her research work systematically and the presented publications clearly outline her scientific research and interests in the field of didactic-methodological technologies in mathematics education, as well as in the field of mathematical training of the future primary teachers. She gradually includes, along with her main focus, the level and specifics of mathematical knowledge of 6-7 year old children, many new topics in her research area, thus demonstrating the broadness of her scientific interests.

The presented monographic work by Dr. Kalina Aleksieva "Preparing seven-year-olds for classes of Mathematics at school" has 230 pages (ISBN 978-619-201-369-1) and is structured in three chapters, conclusions and annexes. It presents a very in-depth theoretical study and experimental research carried out in three stages over a period of five academic years: I. A survey of the knowledge, skills and attitudes of 6-7-year-old children according to the traditional methodology; II. Diagnostic examination of the knowledge, skills and competences of first-graders by author's methodology; III. Studying the achievements of children with a keen interest in mathematics. The dynamics of first-graders' achievements have been monitored and special attention has been directed to children with a keen interest in mathematics. The study of children's mathematical knowledge was carried out using an author's research toolkit. Both the habilitation and the dissertation work of Dr. Aleksieva give evidence for the consistency and depth of her scientific interest in the problems of teaching mathematics.

The other scientific papers presented by Dr. Kalina Aleksieva are up-to-date and dedicated to important and diverse issues of the methodology of mathematics, namely peculiarities of mathematics training for students with SEN, analysis of the content of mathematics in new course books (2016 - 2019), peculiarities of the educational content and the methodology of teaching geometry at primary school, visualization and modeling in solving mathematical problems, the system of text mathematical problems at primary school, etc.

Among them is K. Aleksieva's book "A Guide for Seminars and Practical Exercises in Methodology of Teaching Mathematics at Primary School", pp. 179 (ISBN 978-619-201-328-8). The guide shares the candidate's teaching experience with students in the BA majors PUNUP and NUPCHE, as well as with MA students at Shumen University. The beginning of each topic outlines the main methodological issues and educational tasks that must be accomplished through the specific content of the course. Practical tasks (both reproductive and creative) are provided for group and individual work, exemplary individual work (tests) and instructions for their implementation. Each of the 13 topics is accompanied by tasks and exercises from the specific content of the existing course books.

K. Aleksieva's contribution through the scientific papers submitted for the procedure are real, adequate to the research and achievements of the author and give sufficient grounds for a positive evaluation of her application for "Associate Professor".

The scientific papers presented by the applicant do not repeat those of previous procedures for acquiring a scientific title and / or academic position.

There is no plagiarism proven by law in the scientific works submitted for the procedure.

The applicant has the required number of citations in non-refereed editions (9), thus meeting the minimum national requirements.

### **3. The candidate's teaching experience**

As can be seen from the enclosed information in the documents, the candidate Dr. Kalina Aleksieva meets the requirements for teaching activities. She teaches 10 courses of BA programs and 7 courses of MA programs in Pedagogical majors. She is actively involved in updating and modernizing her curricula. She participates considerably and directly in the practical training of future teachers in the subject area of the procedure.

We should note the serious research activity of the candidate, who annually participates in national (6) and local (11) research projects, whose results and innovations she applies in the education of students.

### **4. Bio data**

In 1986 Kalina Ivanova Aleksieva graduated with a degree in Mathematics and a qualification: Mathematician - Teacher of Mathematics, and in 2014 she graduated with a Master's Degree in Pedagogical Rehabilitation of the Disabled at Konstantin Preslavsky University of Shumen with a professional qualification: Teacher of people with special educational needs. On 28.09.2018 K. Aleksieva was awarded the educational and scientific degree "Doctor" in the area of higher education 1. Pedagogy, Professional Field 1.3. Pedagogy of... (Methodology of teaching Mathematics and Informatics) at Konstantin Preslavsky University of Shumen. From 1994 to 2006 she worked as a Technical Assistant at the Faculty of Public Professions at Shumen University, Honorary Assistant (after competitive examinations at MFEMPP and MOM), Expert of Students' Affairs, Chief Coordinator at the Faculty of Education and Assistant Professor at the Pedagogical College, Dobrich. Since the academic year 2006/2007, after a successful competition, she has been a full-time Assistant Professor at the Faculty of Education at Konstantin Preslavsky University of Shumen. Currently, she teaches seminars and lectures of BA and MA programs in the following disciplines: The content of mathematics education at NEO, Methodology of teaching mathematics, Methodology of developing elementary notions and concepts, Methodology of integrating children with special educational needs in technology training, Information technology and communications, etc.

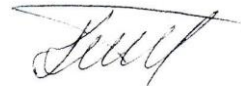
### **5. Personal impressions of the applicant**

I know Kalina Aleksieva since the time when she wrote her dissertation, when her personal and professional qualities and thoroughness impressed me. Dr. K. Aleksieva is also remarkable for her activities, initiative and responsibility in fulfilling her academic and organizational tasks. Especially in the last 3 years I have witnessed her professional development as an independent scholar with original ideas and specific research skills. Her indisputable expertise in her professional field enables her to accomplish her professional goals.

## 6. Conclusion

In my opinion, the career profile, methodological and teaching activities, as well as the research achievements and contributions of Dr. Kalina Ivanova Alexieva entirely meet the requirements and scientometric criteria for the academic position of “Associate Professor”. I give a positive assessment of the application of senior lecturer Kalina Ivanova Alexieva in the announced procedure and propose to the Honorable Scientific Jury that she be appointed to the academic position “Associate Professor” in the area of higher education 1. Pedagogy, Professional Field 1.3. Pedagogy of... (Methodology of teaching Mathematics at primary school), for the needs of Konstantin Preslavsky University of Shumen”, Faculty of Education.

Signature:



(Assoc. Prof. Gabriela Kirova, PhD)

01 April 2020