O P I N I O N

in relation to a competition for the academic position "Professor" in the Field of higher education 1. Pedagogical sciences; Professional field 1.3. Pedagogy of Mathematics in Primary Education, for the needs of Sofia University "St. Kliment Ohridski", Faculty of Educational Studies and the Arts

1. General presentation of the procedure

This opinion is prepared from the position of a member of a scientific jury included in the Register of Sofia University "St. Kliment Ohridski" under № 52/15.12.2021 and is legalized with Order № РД 38-3/04.01.2022 of the Rector of Sofia University "St. Kliment Ohridski" – Prof. Dr. Habil. Anastas Gerdjikov (digitally signed by Eliza Petrova Stefanova), in compliance with Art. 7 and Art. 29 from The Law for the Development of the Academic Staff in the Republic of Bulgaria (ЗРАСРБ), Art. 60 of the Regulations for applying ЗРАСРБ, Art. 118 para (1) and para (3) from The Regulations on the Terms and Conditions for Acquiring Scientific Degrees and Occupying Academic Positions in Sofia University "St. Kliment Ohridski" and on the basis of a corresponding Decision of the Faculty Council of Faculty of Educational Studies and the Arts (FESA) after electronic vote from 1 p.m. on 20.12.2021 to 1 p.m. on 21.12.2021 (Protocol No 20). In SG, issue 96/19.11.2021 a competition for the needs of SU "St. Kliment Ohridski", FESA, is announced in relation to the occupation of academic position "Professor" in the Field of higher education 1. Pedagogical sciences; Professional field 1.3. Pedagogy of Mathematics in Primary Education. The only candidate in the competition is a lecturer, Associate Professor Dr. Gabriela Nikolova Kirova from SU "St. Kliment Ohridski". No procedure irregularities were identified. As a member of the Scientific Jury I have received an access to the documents of Associate Professor Dr. Gabriela Nikolova Kirova, which include:

1. CV;
2. Higher Education Degree Diploma with the corresponding application;
3. Doctoral Degree Diploma;
4. Document for academic position;
5. Certificate of professional experience;
6. Documents proving fulfilment of the requirements according to Art. 115, para 1, pt. 2;
7. Medical certificate;
8. Criminal record certificate;
9. Lists of publications:
    a. list of all publications;
    b. list of the publications presented for the competition;
10. List of publications, conferences, projects and scientific guidance connected with the occupied academic position in SU "St. Kliment Ohridski";
11. Reference sample for the implementation of the minimum national requirements for the corresponding scientific field and the additional requirements of SU "St. Kliment Ohridski";
12. Citations reference;

13. Reference for the original scientific contributions;

14. Reference for the indicators of art. 122, para. 2;

15. Copies of scientific papers presented for the competition;

16. Abstracts of the reviewed papers

17. Copy of the announcement in the State Gazette..

2. General presentation of the candidate

The documents and materials of the only candidate in the competition have been carefully presented and enable an objective and complete evaluation in accordance with the requirements of the National Acts (ЗРАСРБ and the Regulations for its implementation), as well as the Regulations of SU "St. Kliment Ohridski" and FESA.

In 1980 Assoc. Prof. Dr. Gabriela Kirova graduated from the Secondary school No 118 "L. Stoyanov" in Sofia with enlarged studies of French. In 1986 she received higher education in SU "St. Kliment Ohridski", Faculty of Philosophy, specialization Pedagogy. She has a master degree in Pedagogy with a second specialization Philosophy. Since 1987 she is employed in the Faculty of Primary and Pre-school Education (now FESA), SU "St. Kliment Ohridski". Consistently, she was Assistant Professor (1987 – 1990), Senior Assistant Professor (1990 -1999), Chief Assistant Professor (1999 – 2015) and Associate Professor since 2015 until now. Actually, she leads the Chair "Primary school Pedagogy". In 2013 she successfully defended her dissertation on the topic "Thematic diversity of text problems in Mathematics for primary classes" for obtaining the educational and scientific degree "Doctor".

Associate Professor Dr. Gabriela Kirova is President of Club "Friends of children" and organizes an annual scientific forum for university students in FESA. Also, she has organized an annual essay competition for university students. She speaks Russian, French and English languages.

3. Description of candidate's scientific production

The scientific production of Associate Professor Dr. Gabriela Kirova is rich and diverse. She is the author of 3 independent monographs, 1 independent paper in the Year-book of Shumen University "Bishop Konstantin Preslavski", which is indexed in CEEOL, the author of 90 publications in non-refereed peer-reviewed journals or papers in peer-reviewed collective editions, 3 independent studies in non-refereed peer-reviewed journals or peer-reviewed collective editions, also the author of 49 textbooks and handbooks for university students, teachers and students. Assoc. Prof. Dr. Kirova participates in the competition with 1 monograph – a habilitation work, 1 paper under indicator Г6, 23 publications under indicator Г 7, 3 publications under indicator Г9, 6 editions under indicator E20 and 14 editions under E21.

The contributions of Assoc. Prof. Dr. Gabriela Kirova could be classified in 3 directions:

Theory-systematic

Analysis of problems that are connected with the mathematical reasoning of students of primary school age and the significance of mathematical education for its development; theoretical base statements of Bulgarian and foreign researchers on problems, that are connected with text problems in mathematical education in primary school age; original author's conception for experimental-research activity; analysis of project-based education in I – IV classes.

Experimental-investigatory

A model is created and approved for the education of university students in connection with the preparation of primary school teachers for their work with text mathematical problems; an original author's model for the analysis of 859 text problems and creative exercises with text problems for grades I, II, III and IV; 65 original author's schematic models for visualization in working with different types text problems; the effectiveness of the models is proved in the education of 904 university students – future primary school teachers; defining and systemizing of problems in the methodology of primary school teachers' work with text mathematical tasks; elaboration of methodology in the educational work for text problem solving in indirect form; classification of types of creative exercises in mathematics for grades I – IV; elaboration of a system for composing and solving text problems when numerical data from various sources are given; elaboration of a system and methodology for work with mathematical problems which are not connected with traditional curriculum for grades I – IV in Bulgaria; composition and problem solving under schedules; problem solving with circle diagrams, problems for approximate calculations, problems with Euler-Venn diagrams and Carroll diagrams.

Practice-applicable

Methodological ideas are implemented in the masses practice for work with test tasks in visualizations during mathematical education in primary school classes, including: projects, introduction of numbers up to 10, introduction of addition and subtraction of numbers up to 20 with overpassing 10, work with text tasks in indirect form, introduction of rules to find unknown components, introduction the properties of the arithmetic actions; comparison content-analysis of the new textbooks in mathematics for grades I – IV edited by various teams and publishing houses, including conclusions about their strong and weak characteristics concerning particular components of the corresponding curricula; investigation of mathematical competences at the end of first grade according to the new educational program by the use of original instruments and indicators for control; educational sets in mathematics of ИК КЛЕТ Bulgaria ООД – mark Anubis, including: the components of the curriculum, the system of visualization by individual didactic materials and a complete methodological analysis of the electronic resources in first grade.

4. Presentation of candidate's teaching

The classes which Assoc. Prof. Dr. Gabriela Kirova teaches are of high quantity and quality. Some of them are:

Didactics of mathematics – part I for specialization ПНУП, regular form III year and specialization НУПЧЕ, III year; Didactics of mathematics – part II for specialization ПНУП, regular form III year and specialization НУПЧЕ, III year; Pedagogy of mathematics for grades I – IV specialization Pedagogy, regular and part-time forms III year; Didactics of mathematics – contemporary trends and approaches – МП НУП for university students with completed pedagogical specialization and teacher legal capacity – part-time form I year; Didactics of mathematics – contemporary trends and approaches – МП НУП for university students with other specializations – part-time form I year; Creative work on text problems in mathematics grades I – IV for specialization ПНУП, regular and part-time forms III year; Creative work on text problems in mathematics grades I – IV for specialization НУПЧЕ III year; Creative work on text problems in mathematics grades I – IV for specialization МП

НУП of university students with other specializations – part-time form I year; Work on projects in mathematical education for specialization НУПЧЕ II year; Diagnostics and external assessment of the results from the education of primary school classes, specialization ПНУП, regular form IV year; Diagnostics and external assessment of the results from the education of primary school classes, specialization МП НУП for university students with completed pedagogical specialization and teacher legal capacity, part-time form I year.

In addition to the teaching activity of Assoc. Prof. Dr. Gabriela Kirova it should be noted that she is independent author or co-author of textbooks for university students, approved by the Ministry of Education and Science mathematics sets for students from 1st to 4th grade including textbooks, problem sets, handbooks, teacher's books and handbooks for additional optional mathematics classes. Also, she has elaborated various electronic courses for distant learning education.

5. Presentation of candidate's scientific and applied scientific activity

Since 2015 Assoc. Prof. Dr. Gabriela Kirova has participated and participates in 8 national scientific projects as a contractor and in some of them as a leader. She coordinated and supervised practical training of students, organizing and providing observations, ongoing teaching practice and pre-graduate teaching practice of students, she has been communicating with the principals and teachers from different schools in Sofia supporting the process of contracting, contributing to the development of students' competencies for their future profession and others.

<u>**CONCLUSION**</u>

From all of the above it is obvious that Assoc. Prof. Dr. Gabriela Nikolova Kirova is a proven specialist in methodology of mathematics in primary education with an impressive experience in this field. Her scientific production complies with the minimum national requirements and is repeatedly cited. There is no reason to believe that it is not her personal work, which excludes a presence of plagiarism. This makes me conclude that her scientific, scientific-applied, teaching activity and her qualities fulfil the requirements of the ЗРАСРБ, the Regulations for its implementation, as well as the Regulations of Sofia University "St. Kliment Ohridski" for the academic staff development required to the candidates for the academic position "Professor". Therefore, **my conclusion is positive about the election of "Professor"** and I would like to propose to the honourable members of the Scientific Jury to support this application and to submit a proposal to the Faculty Council of the Faculty of Educational Sciences and the Arts at Sofia University "St. Kl. Ohridski" to elect Associate Professor Dr. Gabriala Nikolova Kirova for **"Professor" in Pedagogy of Mathematics in Primary Education**.

Sofia, 10 February 2022   Autor of the opinion:

                                                                              (Prof. Dr. Habil Sava Grozdev)