REVIEW

by Prof. Gabriela Nikolova Kirova, PhD,

at the Faculty of Education Sciences and Arts at the Sofia University "St. Kl. Ohridski" on a competition for the academic position of Professor, in the field of higher education 1. Pedagogical Sciences, professional field 1.3. Pedagogy of Education in...(Methodology of Education in Technology and Entrepreneurship in Primary Grades and Methodology of work in the class hour in primary grades), announced by Sofia University "St. Kl. Ohridski" in the

State Gazette, issue 48/28.06.2022 for the needs of the Primary School Pedagogy Department

1. Compliance of the procedure and the submitted documentation with the applicable legislation

In Official Gazette No. 48 of June 28, 2022 a competition was announced for the election of a "professor" in Professional Field 1.3. Pedagogy of education in ... (Methodology of teaching in technology and entrepreneurship in primary grades and Methodology of work in the class hour in primary grades), for the needs of the Faculty of Education Sciences and Arts (FESA) at the Sofia University "St. Kliment Ohridski" (SU). The only candidate in the competition is Associate Professor Lyuben Vladimirov Vitanov, PhD. This review was prepared on the basis of Order No. РД - 38-390/13.07.2022 of the Sofia University "St. Kliment Ohridski" Rector, Prof. Dr. Anastas Gerdzhikov, on the basis of the decision of the Commission for admission to the competition, appointed by the Order of the Rector of SU No. PJ 38-361/08.07.2022. By the protocol of 30.08.2022, the Commission has unanimously established that all the necessary documents for participation in the competition according to Article 119, Paragraph 2 of the Regulations on the Conditions and Procedure for the Award of Scientific Degrees and Academic Positions at SU "St. Kliment Ohridski" are present, the applicant meets the eligibility conditions and the Commission admits him to the competition. On the basis of the Minutes of the first meeting of the Scientific Jury, dated 02.09.2022, the candidate's eligibility for evaluation in accordance with the minimum national requirements and the additional requirements of the SU pursuant to Article 119, Pargraph 3 of the Regulations on the Conditions and Procedure for the Award of Scientific Degrees and Academic Positions in the Sofia University. The Scientific Jury has verified the compliance of the transcript submitted by the candidate with the minimum national requirements and the additional requirements of the SU. The Scientific Jury unanimously decided that the candidate complies with the minimum national requirements under Article 25, Paragraph 2 and Paragraph 3 of the Academic Staff Development Act in the Republic of Bulgaria (ASDARB) on the basis of all the documents submitted by the candidate. There is no evidence of plagiarism in the scientific works.

As a member of the Scientific Jury, I have found no procedural violations. I have obtained access to the documents and materials of the only candidate in the competition, Assoc. Prof. Lyuben Vladimirov Vitanov, PhD, in the manner prescribed by Article 6, Paragraph 13 of the Regulations on the Conditions and Procedure for the Award of Scientific Degrees and Academic Positions within 3 days after the deadline for submission of the documents (August 30, 2022), which are accurately formatted and allow for an objective and complete assessment in accordance with the requirements of the ASDARB and the Regulations for its

implementation, as well as the Regulations of the SU and the Faculty of Education Sciences and Arts.

Pursuant to Article 6, Paragraph 8 of the above Regulations, I have signed a Declaration under Article 4, Paragraph 6 of the ASDARB (within 3 days of the submission of the applicant's documents).

2. General presentation of the applicant

I have known my colleague Assoc. Prof. Lyuben Vladimirov Vitanov since the beginning of his academic career at the Faculty of Primary and Preschool Pedagogy (Today Faculty of Education in Sciences and Arts – FESA). For almost 31 years we have been working in the same department – Primary School Pedagogy. This fact allows me to claim that I have a broad view of his biography in at least two directions – as a teacher and as a researcher.

Assoc. Prof. Vitanov acquired his higher education (master's degree) at the Higher Pedagogical Institute Blagoevgrad (now Southwest University), Faculty of Pedagogy, specialty Primary School Pedagogy with the qualification "teacher" in 1984. In 1984 he worked as a teacher, conducting interest activities in 18th Secondary School "William Gladstone" in Sofia. In the period 1985 – 1989 Assoc. Prof. Lyuben Vitanov was a doctoral student at the same university. Since 1991 he started working at the Sofia University "St. Kl. Ohridski" in the Faculty of Primary and Preschool Pedagogy (now FESA), successively holding academic positions: assistant, senior assistant, chief assistant and associate professor (2000 – until now).

Assoc. Prof. Vitanov developed and successfully defended a dissertation on the topic: "Preparation of young students for self-education" as he holds a diploma for "Doctor" since 1995. In 2021, he brilliantly defended a dissertation on the topic "Positive Pedagogical Strategy in the Class Hour" for the award of the scientific degree "Doctor of Sciences" in professional direction 1.2. Pedagogy (Primary school pedagogy).

The candidate in the current competition Assoc. Prof. Lyuben Vitanov is valued and respected among the academic staff of our faculty and the university, which is evident from his regular election as a member of the General Assembly of the University and the Faculty Council of the FESA.

The expert activity of Assoc. Prof. Lyuben Vitanov is expressed in his participation as the head of the collective of the Commission in the drafting of the State Educational Requirements (SER) and curricula in Home Life and Technology (2006) and in the Commission for curricula in Construction and Technology for preschool institutions (2015).

He has supervised four successful PhD students, which is a very high testimonial to his qualities as a scientist and supervisor of scientific work.

3. Teaching activities

During his long teaching career at St. "Kl. Ohridski", Department of Primary School Pedagogy Assoc. Prof. Lyuben Vitanov has had a full academic classroom and extracurricular

employment and currently teaches the following scientific disciplines, fully corresponding to the profile of this competition:

Didactics of engineering and technology – Pre-school and Primary School Pedagogy (PPSP), full-time study, 3rd year

Didactics of engineering and technology – Primary School Pedagogy and Foreign Language (PSPFL), full-time study, 3^{rd} year

Didactics of engineering and technology – Primary School Pedagogy and Foreign Language (PSPFL), part-time studies 3rd year

Methodology of pedagogical work in the class hour – Pre-school and Primary School Pedagogy (PPSP), full-time study, 1st year

Methodology of pedagogical work in the class hour – Pre-school and Primary School Pedagogy (PPSP), part-time studies, 1st year

Methodology of pedagogical work in the class hour – Primary School Pedagogy and Foreign Language (PSPFL), full-time study, 2^{nd} year

Methodology of pedagogical work in the class hour – Physical Education and Sport, full-time study, 3^{rd} year

Methodology of pedagogical work in the class hour – Master Program for Primary School Pedagogy (PSP) (graduates of other majors) – 1st year, part-time studies

Methodology of pedagogical work in the class hour – Master Program for Primary School Pedagogy (PSP) (for graduates of pedagogical specialisations and specialisations with teaching qualifications) -1^{st} year, part-time studies

Didactics of engineering and technology – current trends and approaches – Master Program for Primary School Pedagogy (PSP) (for graduates of pedagogical specialisations and specialisations with teaching qualifications) – 1^{st} year, part-time studies

Didactics of engineering and technology – current trends and approaches – Master Program for Primary School Pedagogy (PSP) (graduates of other majors) – 2^{nd} year, part-time studies

Elective Course, Methods and techniques for active learning – Pre-school and Primary School Pedagogy (PPSP), full-time study, 3rd year

Elective Course, Methodology of road safety training – Primary School Pedagogy and Foreign Language (PSPFL), 2nd year

Optional Course, Learning and playing – Master Program for Primary School Pedagogy (PSP) (for graduates of pedagogical specialisations and specialisations with teaching qualifications) – 1^{st} year, part-time studies

Optional Course, Guidelines for work in elective classes – Pre-school and Primary School Pedagogy (PPSP), full-time study, 3rd year

Inclusive Education (together with Prof. Dr. Milen Zamfirov) -3^{rd} year, Pre-school and Primary School Pedagogy full-time study

Inclusive Education (together with Prof. Dr. Milen Zamfirov) – Master Program for Primary School Pedagogy (PSP) (for graduates of pedagogical specialisations and specialisations with teaching qualifications) – 1^{st} year, part-time studies

4. Research activities

An important professional characteristic of the candidate in this competition is his active participation and successful leadership of research projects, including:

Projects of Sofia University "St. Kl. Ohridski" under the Scientific Research Fund, funded by the Ministry of Education and Science:

- Research and presentation of good practices in the application of innovative teaching methods in the primary stage of education in the basic schools of Sofia University "St. Kl. Ohridski", Faculty of Primary and Preschool Education, Head, Contract number: 516/2014.
- 2. Exploring the possibilities of interactive learning to improve the academic performance of student teachers, Leader, 2019, Contract Number: 80-10-170/16.04.2019.
- 3. Applied aspects of preparing student teachers to work with electronic resources, Member, Contract number: 80-10-170/16.04.2019.
- 4. Integrated University Centre for Research, Creation and Quality Assurance of e-Learning in Diverse Educational Contexts (IUCRCQA), Member, Research Fund, Contract Number: INZ01/0111.
- 5. Creating a Positive Learning Environment for Teacher Education Students in Inclusive Education, Member, Sofia University "St. Kl. Ohridski", Inclusive Education, Student Participant. 80-10-209/28.04.2020. Създаване на позитивна среда за обучение на студентите от педагогическите специалности по приобщаващо образование, Член, СУ "Св. Кл. Охридски", Scientific Research Fund: Contract Number: 80-10-209/28.04.2020.

Assoc. Prof. Lyuben Vitanov, doctor of sciences, also participates in international and national research projects:

- 1. Increasing the capacity of the academic staff of the pedagogical specialties of Sofia University in designing, conducting and providing e-learning, Member, Contract Number: BG051PO001-4.3.04-0011, 2012
- 2. Qualification of pedagogical specialists, Member, Contract Number: BG051PO001-3.1.03-0001 2013
- 3. MODERN-A: "Modernization in Partnership through Digitalization of the Academic Ecosystem", Contract Number: BG05M2OP001-2.016
- 4. Revision and restructuring of individual teaching units, created under the project "New Chance for Success", implemented under OP HRD (2007 2013) and creation of new teaching and methodological materials for literacy and adult education in Technology and Entrepreneurship for V, VI and VII grade, Member, Contract number: D03-73/22.06.2018
- 5. Creation of test tasks and final tests for the certification of learning outcomes under the Project "New Chance for Success", direct granting procedure "Adult Literacy" Phase 1 under the Operational Programme "Science and Education for Smart Growth" 2014-2020 and for the validation of non-formal learning and informal learning outcomes, Member, Contract number: BG05M20P001-3.004/2018

5. Scientific production

5.1. Compliance with the science metrics for the academic position

The evidence presented by the candidate for participation in the competition for scientific production, participation in scientific research projects, citations, supervision of doctoral students fully meet and significantly exceed the minimum national requirements of the Academic Staff Development Act in the Republic of Bulgaria and the Regulations on the Conditions and Procedure for Acquisition of Scientific Degrees and Occupation of Academic Positions at the Sofia University "St. Kl. Ohridski". Thus, with a required total of at least 550 points in all indicators, he provides evidence of more than 1,000 points (1048).

Group A, indicator 1 – the candidate scores 50 points (with a minimum of 50).

Group B, indicator 3 – the candidate scores 100 (minimum 100).

Group D, Indicators 4-10 – the candidate scores 253 (minimum 200).

Group E, Indicators 11-13 – the candidate scores 185 (minimum 100).

Group F, Indicators 15-21 – the candidate scores 460 (minimum 100).

5.2. Content analysis of the scientific papers submitted to the competition

For participation in the competition for the academic position of professor, Assoc. Prof. Dr. Lyuben Vitanov has submitted an extensive list of scientific works, including: one habilitation work – a monograph, one monograph not submitted as a major habilitation work, one article published in a scientific journal, refereed and indexed in a world database, thirteen (13) articles and reports, published in non-refereed peer-reviewed journals or published in edited collective volumes, two of which are co-authored, one published chapter in a collective monograph, and four (4) published textbooks used in the school network, eight (8) teaching aids used in the school network.

With their thematic focus and contributory nature, the publications of Assoc. Prof. Lyuben Vitanov enrich theory and practice in the field of technology and entrepreneurship methodology and the methodology of pedagogical work in the class hour.

The contributions of the author's publications proposed for the competition for the academic position of professor can be summarized as follows:

- In his monographic work "Education in Technology and Entrepreneurship" from 2022, Assoc. Prof. Dr. Lyuben Vitanov first of all makes a thorough review of the place of education in technology and entrepreneurship in school education. Documents and sources related to the history and traditions of teaching this subject are analyzed with great skill and scientific correctness. The objectives and expected learning outcomes are presented in a systematic way in the light of the current competency-based approach in education in our country. The issue of specific-content technologies, which are included in the teaching content, is comprehensively developed in didactic-methodical plan, and they are enriched with the specific guidelines and examples of implementation proposed by the author of the monograph. Of particular value is the third part of the monograph, which develops the ideas of modern STEM and STEAM education by linking it directly to the possibilities of engineering education in the fields of design and construction. Throughout the monograph, the author's ability to handle scientific concepts, to discover the possibilities of applying modern didactic technologies, and to develop the related conceptual apparatus, definitions and

classifications is clearly evident. Special emphasis in his monograph Assoc. Prof. Vitanov has put on entrepreneurship education. This topic is a priority in his scientific interests and is reflected in published works. Definitions, main types, characteristics are reflected, but the most significant role and contribution are the presented guidelines of work and examples of training in entrepreneurship. In a separate chapter of the monograph, the author develops and scientifically substantiates the main concepts and priorities of technology and entrepreneurship education. Two important levels in methodological terms and especially the methods and techniques for active learning are thoroughly presented. One of the aspects scientifically developed by Assoc. Prof. Vitanov is about the lesson, organization and planning in technology and entrepreneurship education (in the school education system). The question of innovative methods and techniques of students' evaluation, as well as the problem of students' reflection in the learning process, is specially studied from the didactic-methodological point of view.

- In his other recent monograph "STEM Education in Technology and Entrepreneurship", the candidate in the current competition Assoc. Prof. Lyuben Vitanov presents in detail the definitions and main characteristics of this modern type of education, as well as the characteristics of its historical emergence and development. The problem is explored in a multifaceted way - such as advantages and potential difficulties in STEM education, the specific role of the teacher in this type of education, STEM competences and many others. Special attention is given to the presence and role of science and scientific methods in STEM education (the use of some scientific methods such as observation and experiment). Of great practical value is the elaboration of the aspect of STEM learning opportunities in the subject of technology and entrepreneurship by systematizing specific guidelines and giving examples. Another aspect of STEM learning, STEM engineering, is also very well presented. The three parts of the monograph are of a theoretical and applied nature, developing the themes of the connections of mathematics, visual arts and project work within STEM learning. In the final chapter of his monograph, Assoc. Prof. Lyuben Vitanov presents the possibilities of STEM learning through work on authentic practical problems. There is a serious lack of publications on this topical issue in the contemporary scientific production in Bulgaria, which makes the monograph of Assoc. Prof. Vitanov's monograph of even greater weight and contribution.
- A comprehensive elaboration of the issues of the student-centered positive approach of education, training and socialization in primary school age in the class hour is made by Assoc. Prof. Vitanov in a number of his publications. These elaborations, supported by extensive pedagogical experimentation, are one of his most significant contributions to contemporary pedagogical science. The object of his scientific interest are specific methods and techniques for positive education and active learning in the class hour, which he systematizes, classifies and enriches by building on and supplementing.
- An author's concept on the place and role of initiative and entrepreneurship education in the light of modern school education and the competence approach is developed and published.
- Of great scientific and applied value is the development on the topic of pedagogical priorities in technology and entrepreneurship education. The scientific expertise of Assoc. Prof. Dr. Lyuben Vitanov in the field of constructivist theory and its application in technology and entrepreneurship education is clearly evident here, and it is combined with (and is the basis of) cognitive priorities, pragmatic orientation and humanistic priorities.

- In a comparative study, the issue of teaching and learning information technology in the primary levels of modern English and Bulgarian schools is clarified and presented.
- Assoc. Prof. Vitanov conducts a scientific research, the results of which he presents in his publications, on the possibilities, benefits and effects of interactive teaching and learning of student-teachers using information and communication technologies.

It can be summarized that in his scientific works Assoc. Prof. Vitanov thoroughly addresses issues in the field of modern pedagogical theories and practices, the methods and methodology of education in technology and entrepreneurship, STEM education, the training and qualification of future primary teachers using information technology, positive pedagogical practices for training and education in the class hour, etc. I can boldly confirm that the candidate's scientific interests and publications fully meet the profile of the competition.

Assoc. Prof. Lyuben Vitanov presents in the competition documents a list of 20 citations: in scientific publications, refereed and indexed in world-known databases with scientific information or in monographs and collective volumes -1 piece, citations in monographs and collective volumes with scientific review -15 pieces, citations in non-refereed publications with scientific review -4 pieces.

6. Scientific-theoretical, practical-applied and other contributions

- A thorough, systematic and comprehensive elaboration of the problems of technological learning at primary school age is made, with its components: methodological concepts, content, organizational forms, teaching and learning methods;
- Didactic-methodological elaboration and comprehensive presentation of the possibilities of technological and entrepreneurial learning at primary school age for the formation and development of key competences: creativity, critical thinking, project work, practical problem solving, etc.
- The problems of STEM education in relation to mathematics, natural sciences, visual arts education are developed in theoretical, methodological and specific practical-applied plan.
- A number of pedagogical and practical issues related to the history, dissemination and application in learning environments of entrepreneurship in close relation to technology education are investigated and systematized.
- A didactic technology for teaching technology and entrepreneurship in grades I IV based on constructivist theory and related active learning methods is created.
- A system for interactive training of students in the scientific areas of Didactics of Technology and Entrepreneurship and Methodology of Pedagogical Work in the Class Hour was created and implemented in the practice of university pedagogical education.
- Models of work using active learning methods in the preparation of primary school-age students such as: problem solving, experimental research, project work, business and simulation games, reflection and many others have been developed and applied.
- The theory and practice of positive models of learning and education in technology education and in the class hour are multifaceted, presented and enriched.

- A model for the construction of technology education based on the author's concept (themes, ideas, tasks and activities), applicable to technology and entrepreneurship education at primary school age is presented.
- A number of textbooks and teaching aids on technology and entrepreneurship (including for adults), as well as teacher's books based on a modern methodological approach, problem-based and project-based learning, and integrative learning (based on broad cross-curricular links) have been created and implemented in teaching practice.

7. Personal impressions

I have known the candidate for the present competition for the academic position of professor, Assoc. Prof. Dr. Lyuben Vitanov, since 1991. During this long period I have always highly appreciated his professionalism and scientific knowledge. His teaching work – with bachelors, masters and postgraduate students is distinguished by a high academic level and he always wins the attention and respect of his students. He is a preferred and well-liked lecturer in teacher training and seminars. His research interests are enduring and profound, which is evident in the monographs, textbooks and research articles submitted to the competition. Assoc. Prof. Vitanov is very positive and energetic and knows how to motivate the people he works with. I am particularly impressed by his efficiency, which in recent years has led him to high scientific achievements and enviable production – university and school textbooks, methodological developments and teaching aids. Over the years, Assoc. Prof. Vitanov has shown excellent qualities in organizing and managing research projects in which I have also participated as a member of the teams. In my work as head of the Primary School Pedagogy Department in recent years, I have always found his understanding and support in my administrative commitments.

Assoc. Prof. Vitanov is dedicated to his family.

8. Comments, recommendations and questions

I have no remarks to the scientific-applied and teaching activities of Assoc. Prof. Dr. Lyuben Vitanov. I recommend him to continue to pass on his knowledge, skills and competences in the field of methodology of teaching in technology and entrepreneurship and the methodology of work in the class hour to students-future primary teachers.

9. Final evaluation

From the foregoing it can be seen that Associate Professor Lyuben Vladimirov Vitanov, Doctor of Sciences, is a proven specialist in the methodology of teaching in technology and entrepreneurship in the primary grades and methodology of work in the class hour with very extensive research and teaching experience in these fields. His scientific production fulfils the minimum national requirements under Article 25, Paragraphs 2 and 3 of the Academic Staff Development Act in the Republic of Bulgaria 1. Pedagogical sciences, professional field 1.3. Pedagogy of education in ... (Methodology of teaching in technology and entrepreneurship in primary grades). With 550 points required, he presents evidence for a respectable 1,000+ points (1,048). His work has been cited numerous times. There is no reason to believe that they are not his personal work, which rules out plagiarism. This gives me grounds to conclude

that his scientific, scientific-applied, teaching activity and qualities satisfy the requirements of the Academic Staff Development Act in the Republic of Bulgaria, the rules for its implementation and the Regulations on the Conditions and Procedure for Acquisition of Scientific Degrees and Occupation of Academic Positions at the Sofia University "St. Kl. Ohridski", required of candidates for the academic position of Professor. Therefore, in conclusion, **I give a positive assessment of the selection as "Professor"** and I take the liberty to propose to the Honourable Members of the Scientific Jury to support this candidature and to make a proposal to the Faculty Council of the Faculty of Education and Arts at the Sofia University "St. Kliment Ohridski" to elect Associate Professor Dr. Lyuben Vladimirov Vitanov as "**Professor" of the Methodology of Teaching in Technology and Entrepreneurship in the Primary Grades and methodology of work in the class hour**, believing that he fully deserves it.

Sofia, Septen	nber	2022
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Reviewer:

(Prof. Gabriela Kirova, PhD)