

REVIEW

from Prof. Sashko Krastev Plachkov, PhD
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of the scientific production of Assoc. Prof. Nikolay Ivanov Tsanev in a competition for the academic position "Professor" in the field of higher education 1. Pedagogical sciences, Professional direction 1.3. Pedagogy of training in... (Methodology on the training by technology and entrepreneurship in elementary classes), for the needs of the "Elementary School Pedagogy" department at the Faculty of Educational Studies and the Arts of SU "St. Kliment Ohridski", announced in the State Gazette, No.48/28.06. 2022.

The assignment of the review is based on the decision of the scientific jury, determined by Order No. RD-38-391/13.07. 2022 of the Rector of Sofia University "St. Kliment Ohridski".

1. Compliance of the procedure and the submitted documentation with the current regulations

The only candidate in the announced competition for the academic position of "professor" is Assoc. Prof. Nikolay Ivanov Tsanev, PhD. The competition has been announced in accordance with the Law on the Development of the Academic Staff in the Republic of Bulgaria and the Regulations on the Terms and Procedures for Acquiring Scientific Degrees and Holding Academic Positions at Sofia University "St. Kliment Ohridski". The documentation presented by the candidate to the scientific jury corresponds to the legal requirements and shows that no violations of the procedure were committed.

2. General biographical presentation of the candidate

2.1. *Recognizability* - Assoc. Prof. Nikolay Tsanev was born on 09.11.1960 in the city of Sofia. He completed his higher education with a master's degree in the specialty "Preschool Pedagogy" at the Higher Pedagogical Institute - Blagoevgrad, now South West University "Neofit Rilski". His academic career at SU "St. Kliment Ohridski" began in 1987. In 1999, he successfully defended his dissertation thesis and obtained the educational and scientific degree "PhD". In 2005, after winning a competition, he held the academic position of "Associate

Professor" in "Didactics of technique and technology". He is registered in the NACID Register for habilitated persons with scientometric indicators.

2. 2. *Qualifications* - for the period from 2004 to 2014, Associate Professor Nikolay Tsanev conducted training with the aim of increasing qualifications and acquiring new competencies in the following specializations:

- Pedagogical design of online learning;
- Introduction and working with MOODLE ;
- English for professional purposes;
- Work with MS Office;
- Working with software for evaluating student achievements;
- Additional professional qualification - "Specialist in design and conducting online training.

An international specialization was also held in 2005-2006 at LIVERPOOL HOPE UNIVERSITY on topic "European Certificate of management of children's educational institutions".

Assoc. Prof. Nikolay Tsanev's consistent and purposeful qualification activity in the direction of improving his direct teaching activity is impressive.

2.4. *Administrative experience*

Technically associate of the Dean of Electronic and Distance Learning and Business Activities - 2019 to present; Deputy Dean and Head of the Department "Primary School Pedagogy" - 2009-2015; E-learning system administrator - 2009 to present at Faculty of Educational Studies and the Arts.

2.5. *Consulting and expert activity*

Member of the commission for State Educational Standarts and curricula in information technology for grades 1.-4. - 2006; Member of the commission for State Educational Standarts and curricula on technology and entrepreneurship for grades 1.-4. – 2015.

Participation in scientific the jury for procedures under ZRASRB.

2.6. *Digital competence* – skills and competences for working with: Windows OS, Chrome OS, Linux OS, Android OS, Internet communications, Internet-based services and applications, Electronic and online distance learning, Online courses (MOODLE), Presentation skills.

3. Teaching activity

In his capacity as a habilitated person "associate professor", Nikolay Tsanev is currently a teacher of academic disciplines according to the profile of the competition in OCS "Bachelor" and in OCS "Master": Didactics of technique and

technology; Constructive-applied activities in primary school; Didactics of information technology in primary school; Origami for educational purposes; Educational software for children.

It is clear from this kind of review that Associate Professor Nikolay Tsanev actively and consistently gives academic focus and applied significance to his scientific and administrative profile. This determines the natural upward development of his academic career. In addition, his erudition and efforts in the field of digitalization and comprehensive modernization of technological education in the Bulgarian primary school make him recognizable in the educational and scientific space.

4. Scientific research activity

Assoc. Prof. Nikolay Tsanev has a clear interest and develops his research activity in the following areas: Technological education; Information and communication technologies in education; Electronic and distance learning; Training and qualification of teachers; Modern pedagogical theories and practices.

His author's achievements in these areas are thematically oriented in the following problem segments: constructivism in technological learning, connectivism in technological learning, STEM education, distance learning of students, digital competences of teachers. When familiarizing myself with the publications dedicated to this issue, I find that Assoc. Prof. Nikolay Tsanev clearly shows modern thinking and a desire for pragmatic solutions in the theory and practice of modern school and university education. The scientific researches of the doctoral students supervised by him are also oriented in this direction (one defended dissertation and the second, one before official dissertation defense).

5. Scientific production

5.1. Compliance with the scientometric indicators for occupying the academic position

5.1.1. *Fulfillment of the Minimum National Requirements* - from the submitted report it is clear that the candidate has **1303.29** points out of 550 points required for the academic position "Professor".

5.1.2. *Performance of other quantitative indicators* - **articles and reports** published in non-refereed peer-reviewed journals or published in edited collective volumes - **7 in Bulgarian language**; published **monographic work, textbooks and teaching aids** for university and school environments (1 monograph –

habilitation thesis - 2022; 2 monographs - 2019, 2022, 1 book based on a dissertation work for PhD degree, 6 textbooks – 2009 - 2019 and 4 teaching aids - 2018 - 2020); **Noticed citations** abroad and in our country - 25 items; **participation in projects** (head of 6 projects at the "Scientific Research" fund at SU "St. Kl. Ohridski"); **scientific supervision of doctoral students** (1 successfully defended, 1 in public defense procedure - 2022 and 1 in ongoing training - 2022); **scientific supervision of graduates** (14 masters and bachelors in the period 2018-2022); **author and co-author of study programs** (on 5 disciplines in bachelor's, master's programs and programs for teacher's qualification).

5.2. Content analysis of the presented scientific works for participation in the competition

For participation in the "Professor" contest, Assoc. Prof. Nikolay Tsanev participated with 27 publications. As a presence in his publication profile, I accept for reference only article No. 7 (2000) under indicator D 7, textbooks with No. 7, 8, 9, from 2004, 2003 and 2002 under indicator E 20, the study aids with No. 5, 6, 7 from 2004, 2003 and 2002 according to indicator E 21. With the reduction made in this way, the object of my review are 20 publications. I find that they are clearly distinguished from the publications for the acquisition of the PhD degree (1999) and those from the competition for the academic position "Assoc. Prof." (2005). Once again, I emphasize that the publications presented by Assoc. Prof. Nikolay Tsanev are in full accordance with the profile of the competition for the academic position "Professor". His publication activity and persistence after his participation in the competition for associate professor in 2005, and especially in the period 2018 - 2022, deserve to be noted. His aspiration to publish in refereed editions is indicative, which in terms of quality has led to increasing the degree of his citability, it is also noticeable that his high scientific expertise in the field of "Technology and Entrepreneurship" education is directed towards quality monographic publications - 2019, 2022. Here I should note that given the high scientific rigor of Assoc. Dr. Nikolay Tsanev to the presentation of current topics and scientifically substantiated results, there are also expectations for him to publish in English, especially in publications indexed by international databases such as *Scopus* and *Web of Science* . It is necessary to make appropriate efforts in this direction. The team appearances of Associate Professor Nikolay Tsanev as an author and researcher make a good impression - in 10 of the publications, he is listed as the first author, which is an indisputable authoritative scientific

appearance. The inclusion of two of the doctoral students in the team publications also deserves a positive evaluation. However, there are no separation protocols between the team authors, which makes it difficult to determine the contribution moments of Associate Professor Nikolay Tsanev in them. His independent publications are 10 among them, 3 items stand out as scientific products with high "added value". monographs, one of which is a habilitation thesis, published in the period 2019 - 2022. The habilitation thesis "**Technological education in the field of constructivism**" (2022) is devoted to the problem of modern projections of constructivism in technological education. A comprehensive review of the main theoretical and applied aspects of constructivism as a theory is made. The author presents a point of view, quite different from those traditionally accepted in Bulgaria, about the essence of teaching and learning in technological education. In his typical style of clear and coherent statement, Assoc. Prof. Nikolay Tsanev makes a convincing scientific justification of: the main points in the constructivist methodological approach in the study of technology and constructivist methods and techniques in technological education; the application of information and communication technologies in the constructivist classroom; constructivist lesson design in technology learning. The text part of the work is richly supported with 15 figures, tables and diagrams. In general, this work represents a kind of novelty for the theory and practice of technological education. The growth of Assoc. Prof. Nikolay Tsanev as an author and researcher can also be seen in his other monograph, published in 2019 under the title "**Didactic foundations of technological learning in primary school**". In this work, particular didactic analyzes and theoretical summaries are made regarding the changes that have occurred with the content profile of technological education in the Bulgarian primary school. The need for new approaches and didactic solutions is convincingly justified, according to the modernity of the learning process on the one hand and the technological modernity of the classroom, on the other hand. A special place is devoted to the integration of technological education with entrepreneurship education. A significant emphasis is also placed on the classification of technology and entrepreneurship lessons in the context of the methodological specificity of teaching and learning. There is complete compliance with modern settings of general school didactics. The text is illustrated with 8 figures, 4 tables and diagrams. The third monograph of Assoc. Prof. Nikolay Tsanev under the title "**The art of origami in an educational environment**" (2022) should also be evaluated in terms of merit. The title itself points to purely practical aspects of the problem, which should be the subject of

another type of publication, but Assoc. Prof. Nikolay Tsanev remains true to his style of making theoretical analyzes and generalizations, and in this particular case this was successfully done in the context of the fun learning approach. Along with this, ideas and techniques for therapeutic work are presented, with a view to influencing children's health, expanding their dexterity, fine motor skills and scope, expanding their creative expressions. The paper would gain more persuasiveness if theoretical analyzes and practical generalizations were accompanied by conducted research elements and observations of good practice. The research style is clearly represented in the book, published on the basis of the dissertation defended by Assoc. Prof. Nikolay Tsanev. The title of the book is **"Didactic functions of models and modeling in technological education"** (2022), and the author's attention is directed to the scientific-theoretical questions revealing the essence and features of models and modeling in various aspects: a study of the leading experience in regarding their application in technological education, selection, transformation and experimentation of new educational content, modern didactic tools and educational topics. The educational technological environment Lego Dacta was successfully advocated as the basis of the research, in the conditions of classroom and extracurricular work with elementary school students. Through this research, the author makes a legitimate claim to be one of the leading innovators in the direction of modernizing technological education. Associate Professor Nikolay Tsanev's affinity for the new educational modernities is also noticeable in his article **"Connectivism and Technological Education"** (2022). Theoretical analyzes and critical summaries are made based on the learning theory of George Simmons and Stephen Downes. With good reason, the author poses a number of questions that any new theory raises, does it meet the needs of modern learners, is it applicable in mainstream education, etc. Another value in this publication is the search and sharing of ideas for using specific approaches in technological learning, in the context of connectivism. As I have already noted several times, Assoc. Prof. Nikolay Tsanev's persistent aspirations to be an adequate author of the emerging new educational modernities, I find that confirmation once again in his article **"School Strategy for STEM Education"** (2022). It is a joint development with his current doctoral student Georges Kyushev, in which, obviously, the leading role is played by Assoc. Prof. Nikolay Tsanev. The article explores leading educational experiences and makes a case for the applicability of this approach in Technology and Entrepreneurship education. In summary, the scientific performances of the candidate in the competition for "Professor", related to increasing the quality of

the educational process in the preparation of teachers, make a good impression. Of applied importance are such problems as the **digital competence of teachers (2021)**, **Constructivist Design in Learning (2020)**, **distance learning of students (2007)**. Here, the high erudition and awareness of Assoc. Prof. Nikolay Tsanev in interpreting this topical issue stand out, as well as his ability to give it practical utility in his immediate teaching activity at the university. In this context, both his university textbooks "**Electronic Course on Information Technology Teaching Methodology**" **should be evaluated (2010)** and "**Electronic course on didactics of technique and technology**" **(2009)**. I believe that here it is necessary to note the activity of Assoc. Prof. Nikolay Tsanev as the author of textbooks and study aids for the teaching of "Technology and Entrepreneurship" in primary grades. For the period 2016 – 2020 under his scientific guidance, 4 volumes were developed and published. textbooks and 4 teaching aids ("Book for the teacher"). They are approved by the Ministry of Education and Science and are well received by elementary teachers. I cannot give another qualitative assessment here, due to the fact that they are a collective work with an extremely applied focus.

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

Based on the quantitative and qualitative review of the scientific production of Associate Professor Nikolay Tsanev, the following theoretical and practical-applied results of a contributing nature can be determined: **theoretical research, critical analysis** and **justification** of the place of technology and entrepreneurship in the general educational preparation of students of primary school age; **justifying** and **clarifying** the didactic projections of technological learning in the context of constructivism; **development** of innovative content models for independent construction and reconstruction of knowledge, shared learning in the conditions of teamwork, independent research and experimental activities in "Technology and Entrepreneurship" education; **systematization** and **justification** of methodological approaches for using the art of origami in an educational environment; **developing** a classification of the types of digital training of teachers in "Technology and entrepreneurship" in primary grades; **adaptation** and **testing** of the educational technological environment Lego Dacta in the conditions of curricular and extracurricular work with elementary school students; **research and justification** of reference points for the application of the STEM approach in the teaching of "Technology and Entrepreneurship" in primary grades.

7. Personal impressions

I know Assoc. Prof. Nikolay Tsanev as an established university teacher and researcher. My impressions are that it enjoys a high reputation, both in the scientific community in the field of technology education and in the academic space. His authorial and administrative activities are distinguished by erudition, responsibility and expert knowledge of the specifics and modern guidelines for the development of technological education, as well as for the quality training of primary teachers. His scientific and academic expertise make him a desirable scientific supervisor of students, doctoral students and author teams, as well as a member of scientific juries at various universities.

8. Notes, recommendations and questions

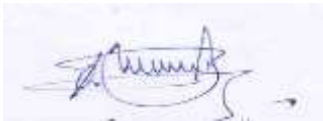
Some comments have already been made in the course of the quantitative and qualitative assessments. I recommend focusing efforts on publishing in Scopus - indexed journals and Web of Science. More support in publications from empirical evidence is needed.

9. Final conclusion

According to the representativeness of the scientific works and their compliance with the direction and profile of the announced competition, the related scientific contributions and personal positive impressions, give me the reason to announce my decision for a **positive evaluation**.

Given the personal qualities, indisputable academic authority and proven scientific growth of Associate Professor Nikolay Ivanov Tsanev, PhD I propose with conviction to the honorable members of the Scientific Jury that he be elected to the academic position of "**Professor**" in Professional direction 1.3. Pedagogy of training in... (Methodology on the training by technology and entrepreneurship in elementary classes), for the needs of the "Elementary School Pedagogy" department at the Faculty of Educational Studies and the Arts of SU "St. Kliment Ohridski".

Date: 25/09/2022
Blagoevgrad

Reviewer: 
(Prof. Sashko Plachkov, PhD)