

## РЕЦЕНЗИЯ НА АНГЛИЙСКИ ЕЗИК

от д-р Ваня Ангелова Сивакова – доцент в Пловдивски университет „Паисий Хилендарски“

### REVIEW

from Vania Angelova Sivakova – Assoc. professor PhD in  
University of Plovdiv “Paisii Hilendarski”

of a dissertation for the award of the educational and scientific degree "Doctor"

in area of higher education 1. Educational sciences,  
of professional field 1.2. Pedagogy  
doctoral program Special Pedagogy

**Author:** Krasimira Stoilova Ivanova

**Topic:** Personalized learning – a predictor for the inclusion of students with special educational needs

**Scientific supervisor:** Prof. Dr. Zhana Atanasova Yankova, University of Plovdiv “Paisii Hilendarski”

#### 1. General description of the presented materials

By order No. № ПД-22-890 from 27.04. 2026 of the Rector of the University of Plovdiv "Paisii Hilendarski", I have been appointed as a member of the scientific jury for ensuring a procedure for the defense of a dissertation on the topic "Personalized education - a predictor of the inclusion of students with special educational needs" for the acquisition of the educational and scientific degree "doctor" in the area of higher education 1. Educational sciences, professional field 1.2. Pedagogy, doctoral program Special Pedagogy. The author of the dissertation is Krasimira Stoilova Ivanova - a full-time doctoral student at the Department of Pedagogy and Educational Management, with a scientific supervisor Prof. Dr. Zhana Atanasova Yankova from University of Plovdiv "Paisiy Hilendarski".

The presented by Krasimira Stoilova Ivanova a set of materials in paper format is in accordance with Art. 36. (1) of the Regulations for the Development of the Academic Staff of the University of Plovdiv "Paisii Hilendarski" (RDASUP), and includes the following documents:

- a request to the Rector of the University of Plovdiv to open a procedure for the defense of a dissertation;
- CV in European format;
- a protocol from the departmental council related to reporting the readiness to open a procedure and to a preliminary discussion of the dissertation;
- dissertation;
- abstract;
- a list of scientific publications on the topic of the dissertation;
- copies of scientific publications;
- a certificate of compliance with the minimum national requirements;
- declaration of originality and authenticity of the attached documents.

The doctoral student has submitted 5 publications.

## **2. Brief biographical data about the doctoral student**

The doctoral student graduated from secondary school in 1985 with a degree in "Sports Organizer" and started working as a sports instructor. She graduated her higher education in University of Plovdiv "Paisii Hilendarski" in 2001 and she obtained a bachelor's degree in Marketing and Management, followed by three master's degrees: "Corporate Finance" (2004) and acquired a professional qualification as an economist, "Consulting Psychology" (2007) respectively with a qualification as a psychologist and "Speech Therapy" - a teacher of language and speech disorders (2021).

Her professional path has been in the field of marketing and advertising (since 1998) and accounting (since 2007). In 2019, she reoriented herself to the educational field as a resource teacher at the Regional Center for Supporting the Inclusive Education Process - Plovdiv, and from 2022 to the present, she has held the same position at the Secondary school "Paisii Hilendarski" in Plovdiv. In 2022, she was enrolled as a full-time doctoral student in the doctoral program "Special Pedagogy".

### **3. Relevance of the topic and appropriateness of the goals and objectives**

The researched topic is undoubtedly relevant and extremely on time. In the modern educational program inclusive education is established as a leading paradigm, which main goal is to ensure a policy of equal access, quality education and equal participation of all children, and in particular - of students with special educational needs (SEN). Since students with SEN represent an extremely heterogeneous group with their individual characteristics, they require precise and targeted pedagogical support.

The relevance of the dissertation stems from the need for a theoretical understanding of personalized learning precisely in the context of the inclusion of students with SEN, with a clear focus on pedagogical practice and its application in educational institutions. Although personalized learning is not a new concept, the widespread digitalization of education gives it completely new dimensions. The transformation of traditional models through innovative methods and universal design for learning turns personalized learning into a powerful predictor of full-fledged digitally inclusive education.

The appropriateness of the set goals and objectives is very well argued. The focus is placed not only on the mechanisms of the learning itself, but also on the exceptional importance of academic perception, reflective models, as well as the trust and confidence of the school and family context. The research tasks are completely appropriate, since the doctoral student considers personalized learning not just as another pedagogical strategy, but as a value paradigm. This paradigm affirms the uniqueness of students with SEN and is key to creating conditions for their full participation in the educational process. The problem formulated in this way determines the high theoretical and applied value of the tasks set and the expected contributions of the research.

### **4. Knowledge of the problem**

The doctoral candidate knows the basic issues well and skillfully introduces interesting author's interpretations with a scientific and applied focus. This is confirmed by the in-depth theoretical analysis of the concepts of inclusive education and personalized learning. The theoretical statements on the research problem are presented comprehensively, multi-faceted and in depth. The main constructs, the subject of the dissertation work, have been competently studied. A valuable merit of the work is that in addition to the in-depth analysis of the researched spaces, the doctoral candidate successfully integrates her own concepts and interpretations on the issues. The creative interpretation of the rich bibliographic material (over 260 sources) allows the doctoral student to

make competent comparisons between individual, differentiated, adaptive and personalized learning.

## 5. Research methodology

The research methodologies chosen by the doctoral student allow to achieve the goal and obtain adequate answers to the tasks set in the dissertation.

The dissertation uses methods of theoretical analysis and empirical research. The theoretical part includes a detailed study of the scientific literature on the topic and an analysis of the conceptual framework of personalized learning as a tool for the inclusion of students with special educational needs (SEN).

The empirical research covers the following methods and tools:

- **Author's survey:** Formulated in relation to the research questions, it explores the reflection and attitudes towards personalized learning among 43 practicing teachers and pedagogical specialists. The results are structured in 7 thematic clusters (including school culture, normative regulation, qualification, etc.).

- **Diagnostic tool "Mind maps":** Applied to study the academic perception around the central concept of "personalized learning", through which 673 concepts in different valences were generated and analyzed.

- **Educational experiment:** Conducted in a hybrid learning model using a mobile application with artificial intelligence (Duolingo Math). It involved 7 students with SEN aged 11–16 (with intellectual disabilities, dyslexia, dyscalculia, emotional-behavioral).

- To evaluate the experiment, an author's scale of 30 items was constructed, completed by 34 respondents (parents, resource and general education teachers, specialists).

The primary empirical data were statistically processed with specialized software (IBM SPSS 22, STATISTICA 13 and MS Excel 2016), based on which a thorough quantitative and qualitative analysis of the results was carried out.

The methods used make it possible to outline the theoretical basis of the problem and reveal the empirical justification of the research issue. I believe that the experimental methodologies used are fully appropriate for achieving the set goals and solving the relevant tasks and hypotheses.

## 6. Characteristics and evaluation of the dissertation work

The dissertation work is structured logically, balanced and academically sound in a volume of 287 pages. It consists of an introduction, four chapters, conclusions, conclusion, literature and two appendices.

**The first chapter** presents an in-depth theoretical analysis of the concept of inclusion through the prism of inclusive education (IE) and traces its evolution through different historical periods. It examines in depth the different approaches, goals and principles of IE, as well as the specifics of its development and application in Bulgaria. Special focus is directed at the analysis of IE through different measurement models, with an emphasis on its conceptualization in its broad and narrow sense. The chapter concludes with a logical transition to contemporary trends, justified by the paradigm of digital inclusive education, which builds a solid theoretical foundation for the actual research.

**Chapter two** is dedicated to a detailed conceptual analysis of personalized learning, tracing its evolution, definitions, main components and characteristics. The doctoral student precisely examines existing educational models, making a clear theoretical comparison between personalized, individual, differentiated and adaptive learning. Emphasis is placed on the affirmation of the personalized approach as a key factor and predictor for the successful inclusion of students with special educational needs. Interdisciplinary connections with neuroscience and universal design for learning, as well as the role of digital technologies, are explored in depth. The chapter concludes with a critical analysis of the conceptual, institutional and psychological barriers to this process, accompanied by applicable strategies for overcoming them.

**The third chapter** argues the research logic and presents an extremely precisely constructed design of an empirical study (in the period 2022 - 2025). It correctly states the object, subject, goal, tasks, hypotheses, methods, methodology, procedure and participants in the study. The chapter justifies the appropriateness of the selected tools - author's surveys, the "mind maps" method, a training experiment with an application with artificial intelligence in a hybrid environment and a scale for its evaluation.

**Chapter four** contains an in-depth analysis of the results. The doctoral student skillfully applies adequate statistical analysis to objectively examine teacher reflection, academic perception and the concrete progress of students with SEN through the digital application DuoLingo, categorically proving the role of emotional and cognitive engagement in this type of learning. The reliability of the empirical material on which the contributions of the dissertation are built is indisputable and scientifically well-argued.

Data processing was carried out using specialized statistical software (IBM SPSS 22, STATISTICA 13 and MS EXCEL). The reliability and internal consistency of the research tools were proven by high values of the Cronbach's Alpha coefficient, as well as by tests for normality of distribution (Shapiro-Wilk). The applied analysis of variance (ANOVA), precise cluster analysis and correlation matrices guarantee exceptional precision and statistical significance of the results. This strict statistical processing gives full confidence in the categoricalness and objectivity of the formulated conclusions and contributions.

The dissertation work ends with conclusions and an inference - 4 conclusions of a scientific-theoretical nature have been drawn, and 3 conclusions of a scientific-applied nature have been drawn. The conclusions drawn give reason to assume that the purpose of the study has been achieved.

The doctoral student Krasimira Stoilova Ivanova has fulfilled the minimum national requirements according to Art. 24, para. 1 of the Regulations for the Implementation of the ZRASRB (for the educational and scientific degree "doctor").

## **7. Contributions and significance of the development for science and practice**

The contributions of a scientific and theoretical nature are summarized as follows:

1. A comprehensive review of the scientific and normative literature on inclusive education in the world and in Bulgaria has been made in a chronological and prospective aspect.
2. A conceptualization of inclusive education in a broad and narrow sense has been introduced for the first time in Bulgaria.
3. A narrative and interpretative analysis of the concept of personalized learning has been implemented.
4. The issue of personalized learning with the application of digital technologies has been developed.

The contributions of a scientifically applied nature are the following:

1. An author's diagnostic tool for reflection on personalized learning and perception of personalized learning has been constructed and implemented.
2. The effectiveness of the implementation of personalized learning using digital technologies for children and students with special educational needs has been established.

3. It has been established that the implementation of personalized learning as a factor of inclusive education is related to taking into account the strengths and potential of students with special educational needs in conditions of widespread digitalization of education.

### **8. Assessment of publications on the dissertation work**

The doctoral candidate has submitted 5 publications on the topic of the dissertation. The publications fully comply with the requirements of the University of Plovdiv "Paisii Hilendarski" for an open procedure for the dissertation work and correctly and consistently reflect the results achieved in the dissertation research. By thematic basis, the publications can be classified into three main areas, following the logic of the dissertation itself:

1. Theoretical aspects of inclusion – exploring the inclusive nature of personalized learning.
2. Empirical analyses of attitudes – exploring teacher reflection and academic perception of personalized learning.
3. Technological support of the process – focusing on digital personalized learning and the role of assistive technologies in its support.

The publications have a strong scientific and applied focus and share timely conclusions for the modern educational environment.

Classification of publications:

- Publications can be classified by type: articles – 4 issues; reports – 1 issue;
- By importance: articles in publications with an impact factor – 1 issue; in non-refereed publications – 4 issues;
- By place of publication: reports in proceedings of international scientific conferences abroad – 1 issue (the publication from Conference ATEE); reports in proceedings of national scientific conferences – 1 issue (the report from the Jubilee Conference 40 years of the Faculty of Education); reports in scientific papers of the university – 3 issues (the articles in the collections of the Student Forum of the Faculty of Education, PU).
- By language in which they are written: in English – 1 issue; in Bulgarian – 4 issues; in other languages – 0 issues.
- By number of co-authors: independent – 3 issues; with one co-author – 2 issues.

### **9. Personal participation of the doctoral candidate**

The scientific work submitted for review is the result of the independent work of Krasimira Ivanova, under the expert guidance of her scientific supervisor – Prof. Dr. Zhana Atanasova. Krasimira Ivanova's personal commitment to the topic of the dissertation work and the competencies related to her practical experience in the field of inclusive education of children and students with SEN are clearly evident.

The personal involvement of the doctoral student is clearly evident in all stages of the implemented theoretical and empirical research. The doctoral student is directly involved in the planning and practical implementation of the indicated methods as well as in the educational experiment with the mobile smart application with artificial intelligence (DuoLingo) among 7 students with SEN. Her rich professional experience as a resource teacher has allowed her not only to precisely identify the research problem, but also to conduct the experiment with a deep understanding of the individual needs and educational profiles of the children.

Additional evidence of her independent research participation is the precise statistical processing of the collected empirical data using specialized software, as well as their subsequent in-depth qualitative and quantitative analysis.

#### **10. Abstract**

The abstract is prepared according to the requirements of the relevant regulations and reflects the main results achieved in the dissertation.

#### **11. Critical remarks and recommendations**

I have no critical remarks and recommendations for the set of materials.

It is recommended that in future studies the sample size for the educational experiment be increased in order to increase the statistical significance of the results. It would be useful to study the effect of a wider range of educational platforms and smart technologies, building on what was achieved with the DuoLingo application used.

#### **12. Personal impressions**

I know Krasimira Ivanova as a responsible, conscientious and precise researcher who demonstrates in-depth awareness and high sensitivity to current issues in special education. Her research and articles are well-argued, methodologically and statistically sound, with significant results for theory and practice.

#### **13. Recommendations for future use of the dissertation contributions and results**

It is recommended that the results obtained be presented to the professional community, as well as reported at scientific forums (conferences and round tables). In addition, it is advisable to popularize the created author's questionnaires and scales.

## **CONCLUSION**

The dissertation contains scientific, scientifically applied and applied results that represent an original contribution to science and meet the requirements of the Academic Staff Development in the Republic of Bulgaria Law (ASDRB), the Regulations for the Implementation of the ASDRB and the relevant Regulations of University of Plovdiv "Paisii Hilendarski".

The dissertation shows that the doctoral student Krasimira Stoilova Ivanova possesses in-depth theoretical knowledge and professional skills in the scientific specialty of Special Education, demonstrating qualities and skills for independent conduct of scientific research.

In view of the above, I confidently give my positive assessment of the conducted research, presented by the above-reviewed dissertation, abstract, achieved results and contributions, and I propose to the esteemed scientific jury to award the educational and scientific degree "doctor" to Krasimira Stoilova Ivanova in the field of higher education 1. Educational Sciences, professional field 1.2. Pedagogy, doctoral program Special Pedagogy.

12.06.2026

Composed the review:

(signature)

Assoc. Prof. PhD Vania Angelova Sivakova