REVIEW

of a dissertation work for the acquisition of educational and scientific degree "**Doctor**"

in the professional field 2.1 *Philology*
(BULGARIAN LANGUAGE - SEMIOTICS)

Author of the dissertation work: **NIKOLAY MIHAILOV SHINDAROV,**

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Scientific supervisor: Prof. Gergana Dacheva, PhD

Subject of the dissertation work:
"PSYCHOLINGUISTIC ASPECTS IN THE ASSIMILATION OF SIGN SYSTEMS"

Reviewer: **Assoc. Prof. ALBENA NEDKOVA DOBREVA, PhD,**
Medical University "Prof. Dr. Paraskev Stoyanov - Varna",
Member of the Scientific Jury, appointed by Order No. РД-38-18/17.01.2023.
of the rector of Sofia University "St. Kliment Ohridski"

1. Relevance of the problem developed in the dissertation work in scientific and scientifically applied terms.

The topic of the dissertation stands out for its topicality and relevance in view of the emphasis on foreign language learning, which can also be seen as the acquisition of new sign systems. The use of the sign system as a means of communication in a foreign language is an argument of relevance that corresponds not only to the acquisition of new vocabulary and new grammatical rules, but also to the mastery of sociopragmatic knowledge and skills that allow (at least partial) embedding in a different sociocultural environment. The dissertation contributes in two main directions: the first is in the form of a systematic presentation of the information in theoretical terms, and the second is achieved through the description of the construction of the video game prototype. The doctoral student Nikolay Shindarov outlines possibilities for future research that suggest an interdisciplinary approach in the search for intersections between foreign language, semiotics, corpus linguistics, computational linguistics, and music. I therefore define the chosen topic as dissertationable and responding to the scientific, academic and social needs of contemporary European society.

2. Does the dissertation student know the status of the problem and the scientific literature.

The doctoral student demonstrates knowledge of the main scientific publications and monographic works of Bulgarian and foreign specialists in the field of semiotics, psycholinguistics, language teaching (Krasteva, Yu., Todorov, Tsv., Dobreva, E., Dobrev, D. Dacheva, G. Stoyanova, Yu., Saussure, F., Chandler, Jacobson, etc.).

There is no list with explanation of the abbreviations, which may manifest as a communication barrier. For example (p. 90) CEFR is only listed as a scale (cf. Common European Framework of Reference for Languages), not as (Common European Framework of Reference for Languages Assessment Scale).

The 176 sources used (in English, French, Slovenian, Russian and Bulgarian), of which 18 are in Cyrillic, 152 in Latin and 6 are educational games, are a kind of testimonial to the scope of the study and its scientific completeness. In this way, the doctoral student not only shows excellent bibliographical awareness and professional competence, but also demonstrates the ability for systematic analysis, for comparing points of view, for scientifically sound generalizations and conclusions. The sources cited are appropriately chosen, although most are 15-20 years old, and some of the citations exceed the accepted length (e.g., Spitzer is cited in 20 lines on pp. 69-70). However, the constant reference to the same source (e.g., Jacobson, Perse, pp. 13-17; Caro, pp. 45-47) gives the impression of redundant retelling and makes it difficult to highlight the author's reasoning and conclusions.

3. Can the chosen research methodology provide an answer to the aims and objectives set in the dissertation work.

The doctoral student uses the term "theoretical and methodological problems" in chapter two. The study, due to the specificity of its problems, is logically divided into separate chapters. The used linguistic, direct and indirect descriptive and analytical methods ensure the reliability and thoroughness of the drawn scientific conclusions. It would be useful to justify the choice of approaches and methods and to present the methodological framework more explicitly. The work is dominated by a descriptive approach.

4. A brief analytical description of the nature and reliability of the material on which the contributions of the dissertation work are built.

The doctoral student has prepared a dissertation of 254 pages. The text is structured in five chapters, introduction, conclusion, references cited. In the introduction, the doctoral student

discusses the different types of definitions of the term "semiotics" in our and foreign literature, indicating the object of her research. Nikolay Shindarov concludes that video games as multi-component sign systems could be used as a tool for learning other sign systems - foreign languages. The doctoral student has stated the goal and the tasks he has set himself. It would have been possible to clearly state the subject and object of the research or to formulate research fields, which would have contributed to outlining the achievements subsequently made in the dissertation. Chapter One, "Semiotics and Sign Systems. The semiotic approach in foreign language teaching" (pp. 9-36) is a theoretical overview. The main terms related to semiotics and sign systems as well as to the semiotic approach in foreign language learning are outlined. In the second chapter "Theoretical-methodological problems underlying the creation of an educational game for teaching foreign languages" (pp. 37-91), the basic principles applied in the preparation of the video game product, providing an effective process of memorizing foreign words, are discussed. Nikolay Shindarov analyzes didactic methods in learning and mastering a foreign language, examining the differences between learning and mastering the "target language" and distinguishing the terms *foreign* and *second language*. He pays particular attention to the inclusion of "rescue" phrases with a metalinguistic function, considered by Benny Lewis (Lewis, 2016) to be particularly important (also mentioned in Chapter Five, p. 224), such as *"I don't understand you.", "What is that word in Spanish?", "Would you repeat?", "What does that word mean?".* I would venture to disagree with the assertion that language learning systems lack those special phrases with which a learner can sustain a conversation! What then are the phrases in the discussion sections of, for example, Longman textbooks? And the titles in the lesson units, e.g. "I love the good weather!" (I am studying in Bulgaria, video course, A1-A2, Bulgarian as a foreign language, MU-Varna, 2018); "My home is my fortress" (I am studying in Bulgaria, video course, B1-B2, Bulgarian as a foreign language, MU-Varna, 2018). In chapter three, "Prototype development process and preparation for an experiment investigating its effectiveness" (pp. 92-141), the doctoral student describes the development of the prototype of the video game under the name LangJet, consisting of one level as of January 2023, which teaches 50 foreign words, concluding that 1000 and 3000 of the most frequently used words could be proposed, in terms of the composition of the learning vocabulary used in the game (p. 90).

Nikolay Shindarov focused on the stages in the development of the prototype and the difficulties in the process of translating the texts in all directions between several languages. It is pointed out that the main language from which the translations are made is Bulgarian. The game has received coverage both on language learning websites and in media such as Language

magazine in the USA (Space Polyglot, 2016:51). Chapter 4, "Experiment to Establish the Effectiveness of the Prototype" (pp. 141-167), discusses the formal testing of the effectiveness of the game prototype through an experiment organized at the 120th Primary School "G. S. Rakovski". In this chapter, the doctoral student presents an experiment on the effectiveness of the game through the participation of 37 students between the ages of 10 and 12, of which the valid tests were 32 with participants, 22 girls and 10 boys (p. 141, and 38 participants are listed on p. 146), who were divided into two control groups, one to learn Slovenian and the other to learn French, languages not learned by the users. The participants in the experiment conducted in 120th Primary School "G. S. Rakovski" were underrepresented compared to Spitzer's experiment of 3605 students from 6th grade from 91 schools in the state of Iowa (p. 69, chapter two).

The doctoral student Nikolay Shindarov diverts attention from the experimental part with a description of "similar research in the past", e.g. Lozanov, Waring and Takaki, thus distorting the structure of the chapter (from p. 142 to p. 146). Chapter 5, "Conclusions from the prototype experiment. Practical Research on the Concept of a Complete Game Version" begins with conclusions drawn through a discussion of the theories and the game prototype experiment conducted (pp. 168-231). Potential changes to the structure and design of the game itself are discussed. The practical work of selecting the vocabulary to be included in the full version of the game is traced, the learning texts are presented, and the possibility of users learning 40 new words per day, or 1600 words over two months, by playing an average of 25 minutes per day, at the game's highest duration, is presented.

In the conclusion (pp. 232 -234), the author summarizes his observations and conclusions regarding the results of the research, the analyses of the prototype's effectiveness.

5. What are the scientific or applied contributions of the dissertation and what is the specific significance of the contributions for science and practice.

The dissertation is written with professional competence and conscientiousness, the exposition is systematic. The doctoral student has clear positions, which he defends with arguments. The ideas proposed are actually applicable and useful for foreign language education. I largely accept the contributions that have been formulated by the doctoral student. Based on an analysis of the dissertation, two groups of contributions can be formed:

- of a scientific-theoretical character: a detailed analysis and reasoned systematization of the scientific conceptions on the specificity of semiotic theories, types of signs and

language as a sign system. In this way, the systemic relationships specific to language learning are highlighted and the logic of scientific concepts is clarified;

- of a theoretical and applied character: successful implementation of an experimental study conducted with the prototype, with generalization of the results into a linguistic corpus, which allows objectivity and reliability in the selection of lexemes in the texts to the video game.

6. Assessment of the publications on the dissertation: number; nature of the publications (international, national) in which they are printed. What is their impact in science - use and citation by other authors.

In connection with the dissertation, 3 scientific publications have been published, which proves the author's enduring interest in this problematic. They have been presented at prestigious scientific forums and have been printed in full in authoritative publications.

7. Is the abstract prepared according to the requirements, does it correctly reflect the main points and scientific contributions of the dissertation.

The abstract (48 pages) presents the overall content and structure of the dissertation. The design and pre-press preparation of the dissertation, the abstract and the publications referred to meet the academic standards for the precise layout of a scientific presentation. The tables (31), figures (8), graphs (8) in the dissertation lack explanatory headings throughout and numbering, making it difficult to fully understand the text.

8. Other matters on which the reviewer feels he should take a position.
Recommendations:

1. To formulate more convincingly and thoroughly the subject, object and scientific hypothesis, to present in depth the methodology of the research.

2. It would be good to draw more definite conclusions after each chapter. Number them and describe them with explanatory headings for a clearer understanding of the text.

3. It would be useful to define the terms *video game, educational game and mobile game* used.

Questions:

1. In which level do the negative vocabulary "prison", "death" and "murder", "poison" fit as they are found in the first topic " Acquaintance", text 2.; topic 2. "At home", text 5 , topic 4 "Let's eat out", text 14? How do these phrases motivate conversation in students?

9. Conclusion with a clear opinion as to whether the scientific degree should be awarded or not.

In conclusion, I believe that the doctoral student has successfully completed his project, proving his scientific hypothesis through a thorough analysis and didactic assessment of the educational needs of users.

The dissertation work "Psycholinguistic Aspects in the Acquisition of Sign Systems" fully complies with the requirements of the normative documents and the Regulations of Sofia University "St. Kliment Ohridski" for the conditions and procedure for the acquisition of scientific degrees and the occupation of academic positions. The entire procedure of enrolment, internal defence and disenrolment is followed precisely and is fully compliant with the requirements of the Academic Staff Development Act in the Republic of Bulgaria.

I therefore consciously and confidently give my positive vote and propose to the esteemed Scientific Jury to award to NIKOLAY MIHAILOV SHINDAROV the educational and scientific degree of **Doctor of Philology** in professional field 2.1. Philology in the scientific specialty "BULGARIAN LANGUAGE - SEMIOTICS".

31.03.2023   Reviewer: ………………………………

Varna   (Assoc. Prof. Albena Dobreva, PhD)