OPINION

by **Assoc. Prof. Ekaterina Todorova, PhD**
7.4 Public Health, New Bulgarian University

on the dissertation on a topic
"READING AND WRITING DIFFICULTIES OF ADULT ENGLISH LANGUAGE LEARNERS WITH DEVELOPMENTAL DYSLEXIA"

for
the awarding of the educational and scientific degree "Doctor",
in the professional field: 1.3. "Pedagogy of tr...";
scientific specialty: "Methodology of teaching modern languages"

Candidate **Blagovesta Petkova Troeva-Chalakova**
PhD student at the Department of Foreign Languages and Cultures
Doctoral program "Methodology of teaching modern languages", New Bulgarian University

The opinion was prepared in accordance with the requirements of the Academic Staff Development Act in the Republic of Bulgaria, the Regulations for its implementation and the Regulations for the conditions and procedure for the acquisition of scientific degrees and the holding of academic positions at New Bulgarian University. The review of the materials is in accordance with the Order of the Rector of the NBU for the appointment of the scientific jury No. 3-RK-208/13.05.2024.

Significance of the researched problem in scientific and scientific-applied terms

Dyslexia is a complex neurological condition, a phenomenon of a different type of processing of verbal information, with a still poorly understood etiology, which directly results in the development and functioning of literacy - the processes of reading and writing. It affects individuals of average and above-average intelligence and manifests itself with multiple discrepancies - between high potential and academic achievement, between the skills of decoding and comprehending what is read, between linguistic expression in oral and written speech. The changing understanding that intellectual functioning determines academic success and better diagnostic options in modern science and practice have led to a sustained trend of increasing numbers of individuals with developmental dyslexia. There has been a growing interest from professionals, educators, non-governmental organizations and parent associations trying to find answers to the causes that lead to serious difficulties in the reading and writing processes in people with high intellectual functioning. Over the past decade, research practice has focused primarily on the functional health of individuals with atypical development. The basic concept for this is linked to the 1948 WHO constitution, which states that health is a state of complete physical, mental and social well-being and not simply the absence of disease or infirmity. Therefore, the development of research aimed at the possibilities of alleviating a condition and improving functioning through innovative methods to overcome difficulties is highly relevant.

In this sense, Blagovesta Troeva's choice to investigate the mechanisms of dyslexic reading and writing in adult English language learners is timely and undeniably dissertation-worthy. Moreover, for the first time in Bulgarian research practice, a scientifically grounded analysis of the features of written speech in dyslexic adults in the process of foreign language learning is made. The results of such research are essential for the implementation of effective teaching methods and strategies tailored to the specificities and individual needs of dyslexic people. Moreover, the application of the obtained results in pedagogical practice would contribute to the improvement of academic, professional, social, emotional-behavioral and personal development of people with dyslexia.

Purpose and tasks

In relation to the formulated research questions for the assessment of written language (reading and writing) of dyslexic learners of English, PhD student Troeva specifies fully relevant hypotheses, methods and procedures for research. The aim and objectives are clearly and specifically stated. The questions posed are meaningful and fully meet the purpose of the study.

Degree of knowledge of the state of the problem and correspondence of the used literature

The theoretical formulation of the problem in Blagovesta Troeva's dissertation is extremely precise. The doctoral candidate presents a textual section in which she discusses the main theoretical models of the development of reading processes, modern approaches to defining the condition dyslexia, the etiology and pathogenesis of the condition, the specifics and mechanisms of dyslexic behavior in reading and writing. The literature review conducted is scientifically correct, which is generally a complex task in the controversial field of specific learning and learning disabilities. The textual section demonstrates a high level of proficiency with scientific texts and the ability to interpret. Blagovesta Troeva has managed to select in the literature review of her dissertation contemporary sources, frequently cited authors and theoretical models that are relevant not only to the field of pedagogy, but also to the field of psychology and speech therapy, with a link to the topic and object of her research - the assessment of dyslexic behavior in the process of foreign language learning. The authors' own summaries of the selected theoretical information are presented with scientific integrity.

Correctness in citing a representative number of authors

The thesis correctly cites 287 literature sources in Bulgarian, Russian and English languages, on paper and in electronic format. The authors' selection skills make a very good impression, especially considering the interdisciplinary nature of the PhD thesis and the considerable amount of information that can be found on the topic of dyslexia in the literature and Internet sources. The most relevant areas in the field are cited, with a skilful presentation of generalisations, own interpretations and conclusions.

Availability of a justified and developed theoretical model of the study

Based on the presented theoretical framework, an original, author's toolkit was developed for the assessment of reading and writing in the process of foreign language learning for dyslexics and normolexics. A wide range of research tasks have been developed which

include skills in decoding and encoding written verbal material on the one hand, and tasks to assess comprehension of what has been read/written on the other. Additionally, the study included a questionnaire and two interviews. I found the assessment methodology constructed in this way to be extremely informative, but also quite lengthy and time consuming, especially for the dyslexic subjects - over an astronomical hour for the verbal writing tasks and 30 minutes for the interview. I would recommend, in the future and based on the results obtained, that the battery be reevaluated and reduced, leaving only the most informative modules and that the study be divided into several time intervals.

It makes a very good impression that in the development of the author's assessment methodology, a serious analysis of inclusive type design has been made, with particular emphasis on the importance of the graphic way of conveying written verbal information in dyslexia. Doctoral student Troeva examines the widely used fonts recommended as appropriate for people with dyslexia - conventional and specialised. After a thorough analysis and evaluation, the dissertation uses Adys, the first Cyrillic font specialized for dyslexics. The font is fully tailored to the specificity of dyslexic reading, it contains Latin and Cyrillic language tables as well as many mathematical signs and symbols.

I also have a few notes to add to this textual section. Pseudoword reading is one of the most exploited methods for assessing the ability of grapheme-phoneme decoding, or the bottom-up reading model. In pseudoword reading, we exclude the influence of semantics and ignore the possibility of recognizing whole words using memory mechanisms (top-down reading model). Therefore, in research practice, it is absolutely forbidden to use pseudowords that have similar phonological content to semantically meaningful words. The processing of such pseudowords would involve the mechanisms of direct access to the whole word, which would violate the purity of the study. I would therefore recommend that such pseudowords be avoided in the future.

My most serious criticism of this section is the use of the "Create Text from Pictures" method instead of the assignment to create your own written text - an essay. According to the doctoral student, "the argumentative essay ... requires ..., a high level of critical thinking and logical reasoning, which can increase cognitive load and exacerbate writing difficulties in people with dyslexia" (p. 125). I couldn't agree because:

- Assessment of language expression through the Picture Series Narrative is an assessment method in elementary school age (written verbal narrative) and preschool age (oral verbal narrative). Given the particular sensitivity of dyslexic people, it is unacceptable to use methods in diagnosis and assessment that are not appropriate to their cognitive and intellectual functioning.
- According to the British Dyslexia Association (BDA, 2023) dyslexics demonstrate a range of strengths in areas such as reasoning, problem solving, visual and creative skills. According to this, the difficulties of people with dyslexia are not related to their ability to think, reason and formulate their own linguistic expressions (oral or written), but in their ability to encode and decode graphemes.

Correspondence of the chosen methodology and research methodology with the set goal and tasks of the dissertation work

The research methodology thus constructed fully meets the stated aim and objectives of the thesis. The methods of data analysis used include quantitative and qualitative evaluation, as well as statistical inference methods (Mann-Whitney U test, H test of Kruskal-Wallis). The quantitative values are illustrated with tables, which facilitates their perception. The additional presentation and in-depth linguistic analysis of the results obtained in three of the cases present a clear and reliable picture of the features of dyslexic reading and writing. Moreover, the D5 case examined largely illustrates the classic clinical picture in adults with developmental dyslexia.

The qualitative analysis of the results is extremely detailed, precise and informative. I believe that this is one of the most serious contributions of the thesis. Dyslexia is mainly associated with difficulties in decoding when reading and encoding when writing. According to the dualistic model, word reading can be achieved through two distinct pathways: (1) an indirect/sublexical pathway that transforms visual words into their auditory counterparts through grapheme-phoneme correspondences; (2) a direct/lexico-semantic pathway that corresponds to a direct relationship between the visual form of a word and its meaning (Coltheart et al., 2001). According to this, the developmental direction of dyslexic reading is characterized by an extremely difficult start in the primary school years, both for native and foreign language learning. The development of grapheme-phoneme transfer skills occurs slowly and painfully, and sometimes achieving sublexical reading is even impossible. High levels of oral language functioning in terms of grammar and semantics on the one hand, with the support of visual and lexico-semantic memory parameters on the other, allow dyslexics to develop reading skills based on the direct, lexical route, which is based on contextual support and comprehension of what is read. Thus, dyslexic reading is characterized by a mismatch between decoding and comprehension of what is read. Reading remains slow, with specific dyslexic errors, but comprehension is preserved. Therefore, difficulties at school/university (in adults) are not dependent on the amount of linguistic information that needs to be processed, memorised and reproduced, but are solely related to the route of delivery. It is no accident that a common characteristic of dyslexics is that they learn better orally than in writing. The qualitative analysis presented by PhD student Troeva supports this understanding. I would like to focus on the following results:

- Presence of literal paraphrases and parallelisms of visually similar graphemes and of graphemes whose phonemes are acoustically similar.
- Significant difficulties in reading words and pseudowords aloud quickly and accurately.
- Good reading comprehension parameters.
- Discrepancy between levels of linguistic expression in oral and written speech.
- Longer words are easier than shorter ones (having a greater number of graphemes on consonants favours the direct reading route).

Availability of own contribution in the collection and analysis of the research data

All research and other methods applied were conducted personally by the PhD student under the supervision of her supervisor. This is the moment to congratulate PhD student Blagovesta Troeva and Assoc. Prof. Dr. Svetlana Dimitrova-Gyuzeleva for the excellent work done in the research part of the dissertation. I believe that their joint work could be continued

in an experimental study of the preferred model of processing written verbal information by dyslexic adults learning English as a foreign language - "top-down", "bottom-up".

Contributions

I accept the points of contribution formulated by the PhD student and would like to focus on the following:

- For the first time in Bulgarian research practice a thorough analysis of dyslexic behaviour in adult foreign language learners is proposed.
- A detailed and precise analysis of the mechanisms of reading and writing a foreign language in dyslexic adults is presented.
- Based on the data collected from the four instruments administered, recommendations for teaching and self-teaching English to dyslexic adults are formulated, which form the basis for future research and the development of a guide for working with this age group.

Publications related to the dissertation

Results of the dissertation work have been published in seven scientific publications, three of which are in refereed and indexed scientific journals. Proof of their high quality are the 22 citations.

Abstract

The presented abstract correctly reflects the main aspects of the research and the contributions of the developed work.

Conclusion

In conclusion, in spite of the comments and recommendations made, I believe that the presented dissertation of Blagovesta Petkova Troeva-Chalakova contains significant and essential results, conclusions and recommendations, which could have a serious practical application in the foreign language education of adults with dyslexia.

I propose to the esteemed colleagues of the scientific jury to award the educational and scientific degree "Doctor" in the professional field 1.3. "Pedagogy of tr..." to Blagovesta Petkova Troeva-Chalakova for her dissertation on "Difficulties in reading and writing of English language learning adults with developmental dyslexia".

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Assoc. prof. Ekaterina Todorova, PhD