

# EXPERT OPINION

By Associate Professor Vladislav Vladkov Marinov, PhD

St. Cyril and St. Methodius University of Veliko Tarnovo

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

In higher education field 2. *Humanities*

Professional field 2.1 *Philology*

Doctoral Program *Romance Languages*

**Dissertation author: Rosina Aleksieva Kakova**

**Topic: Vowels in French and Bulgarian – Acoustic Description Taking into Account the Perceptual Integration of their Frequency Components**

**Research supervisor:** Associate Professor Rusi Nikolov Nikolov, PhD, Paisii Hilendarski University of Plovdiv

## 1. General information about the procedure and the doctoral candidate

By order No. ПД-21-2385 dated 14/12/2023 of the Rector of Paisii Hilendarski University of Plovdiv, I was appointed member of the scientific jury for the defence of the dissertation *Vowels in French and Bulgarian – Acoustic Description Taking into Account the Perceptual Integration of their Frequency Components* for conferring the title of Doctor in Higher Education Field 2. *Humanities*, Professional Field 2.1 *Philology*, Doctoral Program *Romance Languages*. Author of the dissertation is Rosina Aleksieva Kakova, a full-time doctoral student at the Department of Romance and German Studies, with research supervisor Assoc. Prof. Dr. Rusi Nikolov Nikolov of Paisii Hilendarski University of Plovdiv.

The materials provided on paper by doctoral candidate Rosina Kakova comply with Article 36 (1) of the Regulations for the Development of the Academic Staff of Paisii Hilendarski University of Plovdiv, and the texts of 3 articles related to the topic of the dissertation were also attached.

R. Kakova's resume shows she graduated from Paisii Hilendarski University of Plovdiv as a master of English language and methodology and specialist of Bulgarian language and literature as well as French language and literature and secondary-school teacher of Bulgarian language and literature and French language and literature. After graduation, she taught French at schools in Plovdiv, and since 2014 she has been a senior French language lecturer at the University of Food Technologies in Plovdiv.

## 2. Relevance of the topic

The topic of the parallel research (using modern software) of the acoustic characteristics of the vowel systems of a Slavic language (Bulgarian) and a Romance language (French) is relevant, as it provides more accurate data which would be useful in learning the languages as second foreign languages both in Bulgaria and abroad.

## 3. Knowledge of the problem

R. Kakova possesses knowledge of the research problem and studied various literature sources, but, sadly, the literature used was presented chaotically, with the focus shifted to the French language, and in many places the reader is lost in facts not analysed by the author, with the connection to the topic of the dissertation not clearly shown.

#### 4. Research methods

The research methods allow for an adequate study of the problem, but the experiments conducted were not well explained, the concept was not comprehensively and consistently presented, and the result is a fragmented text with broken logic of creating scientific texts.

#### 5. Description and evaluation of the dissertation and its contributions

The dissertation *Vowels in French and Bulgarian – Acoustic Description Taking into Account the Perceptual Integration of their Frequency Components* presented by R. Kakova has an introduction, three chapters, a conclusion, appendices, and a literature review. In the introduction, the doctoral candidate defined the object, objective, and tasks of the research, and presented the relevance of the topic selected. The object is “the vowels in French and Bulgarian in the speech of radio journalists” (p. 5), and the objective is “to make a comparative analysis of the results of the classical model of vowels and an optimized acoustic-phonetic description of vowels ....” (p. 6). From the tasks formulated on pp. 6 and 7, it is not clear why the analysis was limited to front vowels only (tasks 4 and 5), as well as if task 6 refers to front vowels only. The innovative approach used by the doctoral candidate and its applicability in teaching the vowels in the French language cannot be ignored, but even here the reader begins to get confused, since the tasks thus defined do not contribute to the complete achievement of the objective of the research.

In the first part of chapter 1, *Overview of research on vowels in French and Bulgarian*, significant research on the acoustic characteristics of the vowel systems of the two languages was briefly presented. Here, too, it is not clear why the author began with research by Gunnar Fant (his theoretical study of the acoustic characteristics of sounds) and Pierre Delattre (his work in the field of acoustic phonetics), which, in my opinion, is extremely insufficient, and studies on the acoustic characteristics of the Bulgarian vowel system were briefly presented, chaotically jumping from general to particular without producing any arguments. Readers are left with the impression there is no modern research on the acoustic characteristics of French vowels. In the field of Bulgarian phonetics, the theoretical review is superficial, too, and even if the research was limited to studies on the acoustic characteristics of Bulgarian vowels, mentioning the more recent works by V. Zhobov, B. Andreeva, etc. is a must, yet, according to the doctoral candidate, no one has worked in the field since D. Tilkov (1970) and B. Nikolov (1970, 1975, 1987), and this contradicts the candidate’s idea that today’s acoustic phonetics has more opportunities for research. The next part, ***1.2 Specifics of acoustic phonetics as an empirical natural-scientific and linguistic discipline***, is superfluous, and what is more, it is a full quote used without any quotation marks from the MusicDaskal site, where, as the link shows, Wikipedia was quoted. Such facts should never appear in a dissertation. Moreover, there is a quote without any quotation marks, only with a link given below the line, which is not correct, in at least one other place (p. 15). What is also unclear in the first chapter is that coarticulation was presented only in relation to French vowels. Does the Bulgarian language lack coarticulation? Furthermore, what is the difference between the single [e], [ø], [o] and double [e], [o], [ø] vowel sounds (p. 30) after they were represented with the same characters without further commenting in detail? In this regard, the idea of the author to present the IPA as far as on p. 82 is strange, given that she used specific phonetic system signs from the very beginning of the paper, without specifying which sign to which vowel and which characteristics refers. As a model, she could have used V. Jobov's study *Sounds in the Bulgarian Language* (2004).

In the second chapter, *Methodological specifics in the acoustic description of vowels*, R. Kakova presented an empirical study of the acoustic characteristics of Bulgarian and French vowels, using “the TREFL (Translation REFERENCE Library) phonetic module designed and created by Associate Professor Rusi Nikolov and offering the possibility of modelling vowels taking into account the frequency integrations in their acoustic image.” (p. 54). A methodology approved by the research supervisor in his previous studies was used, comparing the values of the first two formants

of the front vowels [i, e] in the French and Bulgarian languages and presenting the values of the back vowels [u, o, ɔ, a] in the French language. This chapter is the very research which should form the basis of the paper, but here, too, the text is fragmentary, with no clear ideas. The author started well by introducing the development of technologies used in experimental phonetics and the theoretical framework of her experiment (as already noted, the experiment itself was not well described). Here, the criterion for choosing the positions of the sounds whose values were presented and compared is not clear. What was also not clarified, for example, was the decision of the doctoral candidate to limit the scope of the topic and modify the objective of the research by not covering the entire vowel system, the number and profile of the subjects researched, and the criterion for their speech to be examined and accepted as representative for the French and, respectively, the Bulgarian language (p. 59 – 71), etc. Fact is that the author specified that the acoustic-phonetic method used can be applied only to French front vowels (pp. 59-60), but this means that only they should have been included in the dissertation, and the results of the experiment can only be used for learning those vowels. In this regard, the idea to use the model in foreign language teaching becomes somewhat meaningless, since it is only applicable to two sounds. In fact, the last part of the chapter related to phonetic teaching and foreign language teaching, in my opinion, should be part of the next chapter, as its inclusion in the second chapter confuses the reader, and the work, ideas, and contributions of R. Kakova remain buried under layers of side (and redundant for the structure of the paper) information.

The third chapter, *Use of vowel acoustic description methods in foreign language teaching*, has a practical focus and is related to the possibilities offered by modern software when using it in foreign language teaching. In the first part of the chapter, R. Kakova presented the software products VTCalcs/VTDemo and WaveSurfer (in connection with the specifics of French vowels), and in the second part the emphasis was put on the foreign language teaching methods, with an appropriate place allocated to corrective phonetics, which corresponds to some extent to the topic of the dissertation. The author successfully presented the information in the chapter, but the focus was again shifted from the acoustic characteristics of vowels to foreign language teaching, which does not correspond either to the topic of the dissertation or to the objective of the research.

In the conclusion of the dissertation (1 page), R. Kakova summarized that the achievements of modern acoustic phonetics (taking into account the acoustic characteristics of sounds using different software, more accurate recording of the realization of sounds in speech, etc.) and their use in foreign language teaching would optimize foreign language learning. The conclusion is of an extremely insufficient volume and does not make clear whether the objective of the research was achieved, and the tasks set fulfilled, and the generalizations made by the doctoral candidate were not supported with arguments (arguments to the generalizations are also missing elsewhere in the paper).

## **6. Publications and personal contribution of the doctoral candidate**

The publications attached by R. Kakova are on the topic of the dissertation and show a good knowledge of the subject and presentation of the problems researched.

## **7. Author's abstract**

The author's abstract adequately reflects the structure and content of the dissertation.

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

Regarding the contributions, it can be noted that the dissertation *Vowels in French and Bulgarian – Acoustic Description Taking into Account the Perceptual Integration of their Frequency Components* presents a new approach in understanding the acoustic nature of French vowels

through the use of TREFL and its parallel use with various acoustic analysis software products such as Speech Analyzer. In addition, previous experience in teaching French was included, and as a result of the contrastive analysis of some elements of the vowel systems of the French and Bulgarian languages, problems from the field of corrective phonetics were also covered. For the paper to be of practical value, the experimental part should be further developed, and, along with the notes and recommendations made so far, the following are required:

1) The first and second chapters, in my opinion, need to be restructured, since now part of the information is lost and a very careful reading is needed to understand the essence of the chapters, which belittles the work of the author.

2) To the studies on the phonetic system of the Bulgarian language, papers by V. Jobov, B. Andreeva and other authors who studied the acoustic characteristics of the Bulgarian vocal system should be added. From the resume, the author has a professional interest in the French language, but since the Bulgarian language was included as an equal element in the title of the dissertation, the necessary information about the characteristics of the Bulgarian vowel system should be included, too. Regarding the literature used, papers by T. Boyadzhiev and D. Tilkov (pp. 13, 14) from 1997 and D. Tilkov and T. Boyadzhiev (pp. 15, 16) from 1977 were indicated several times in the dissertation, which, I assume, are different editions of their textbook on Bulgarian phonetics, but this was not specified in the literature review.

3) The advantages of the optimized acoustic-phonetic model were not sufficiently described in the second chapter. For the model to have practical application value in foreign language teaching, the doctoral candidate should develop it further.

## CONCLUSION

The dissertation *contains some scientific and applied results constituting an original contribution to science*, but they were not presented clearly enough, and often no analysis was made of the theoretical statements considered. Furthermore, the problem selected was not well researched, and, on one hand, the dissertation presented for evaluation lacks basic research, and on the other hand, a large amount of extraneous information on the topic of the research was included. The text is fragmented, and there is no clear vision of the place of the individual parts in the research. Thus, the requirements for a complete study on the topic selected were not met. The findings made were not supported with adequate evidence to demonstrate the doctoral candidate's ideas and her ability to write a dissertation paper. Due to the stated in items 3, 4, 5 and 8, I am confident to give *negative assessment* of the research conducted and *propose that the esteemed scientific jury not confer the title of Doctor* to Rosina Aleksieva Kakova in Higher Education Field 2. *Humanities*, Professional Field 2.1 *Philology*, Doctoral Program *Romance Languages*.

31.01.2024

Expert Opinion by: .....

(signature)

*Assoc. Prof. Vladislav Vladkov Marinov, PhD*