

REVIEW

by Prof. Violeta Boyanova, MD, PhD

**of a dissertation for the award of the educational and scientific degree of “Doctor”
in professional field 7.4. Public Health, doctoral program “Speech-Language Pathology,”
submitted by Elisavet Leonidas Tsimplidou, self-directed doctoral student at New Bulgarian
University**

**Dissertation topic: “ Investigating Relations of Communication Skills and School
Performance of Children with Hearing Disorders with Teacher Competencies in
Implementing Differentiated Teaching in Inclusive Learning Environments”**

Academic supervisor: Assoc. Prof. Katya Dionisieva, PhD

Elisavet Tsimplidou was enrolled as a self-directed doctoral student at New Bulgarian University by Order of the Rector No. 3-RK-188 of May 31, 2021, in professional field 7.4. Public Health, doctoral program “Speech-Language Pathology.” She was admitted to public defense by Order of the Rector No. 3-RK-219 of June 19, 2026.

The dissertation submitted for review comprises 151 pages, of which the theoretical part accounts for 88 pages, and is structured into an introduction, a literature review, research methodology, results and analysis, and conclusions and recommendations. The analysis is supported by 10 figures and 10 tables. The appendices include the questionnaire by Karam Siam and Mayada Al, adapted with the additional participation of the doctoral candidate, and the Screening Instrument for Targeting Educational Risk (SIFTER).

In this form, the dissertation meets the formal requirements for a doctoral thesis.

Brief biographical information on the doctoral candidate

The candidate, Elisavet Tsimplidou, is a specialist whose principal field is pedagogy and work with children with sensory impairments. She graduated in Primary Education from the University of Patras and subsequently completed a Master’s degree in Manchester in the education of, and work with, children with hearing impairment. She holds certificates of proficiency in sign language and



Braille. She is continuing her education at the University of Thessaly in the program “Organization and Administration of Education.”

In 2024, she graduated from the Department of Early Childhood Education at the University of Thessaly, and since 2017 she has been a member of the team developing the institutional framework of the individual educational plan for the education of refugees.

The candidate has extensive experience in various educational institutions in Volos, Larissa, and Thessaloniki, consistently related to instruction and new trends in the education of children with difficulties in communication, academic achievement, and behavior, as well as in classroom participation. She is actively involved in public and educational organizations that carry out activities aimed at improving the adaptation and personal fulfillment of children with developmental difficulties, above all those with sensory impairments.

1. Relevance of the research problem from a scientific and applied scientific perspective.

The topic of the dissertation is of considerable relevance in three principal respects:

- First, research on sensory impairments, and on auditory perception in particular, among children and adolescents is of major importance for mental and cognitive processes, learning potential, and communication abilities, as well as for somatic health;
- Second, students with atypical perceptual development, including auditory, usually differ from the rest of the group. They are often subjected to both verbal and physical forms of pressure and humiliation, by their classmates and at times by teachers. The present dissertation examines the extent to which students with hearing impairments benefit from differentiated forms of school instruction and whether this, in turn, facilitates their socialization;
- Third, I would like to note the growing interest of the scientific community in multidisciplinary research, and the present topic is precisely of this kind: the study examines whether biological factors, such as impaired auditory perception, influence students’ cognitive development and learning capabilities.

2. Formulation of the objectives and tasks of the dissertation.

The main aim of the research is to compare the effect of applying the principles of differentiated instruction for students with hearing loss before and after their teachers complete a training course delivered by the Institute of Educational Policy under the auspices of the Greek Ministry of Education.



In addition, the author conducts a detailed study of the personal characteristics of the participating teachers (age, gender, type of education, etc.) and of the extent to which these factors influence their attitudes and practices when working with students with hearing impairments.

The dissertation formulates seven hypotheses concerning different components of the effect of differentiated instruction.

3. Level of knowledge of the state of the problem and relevance of the literature used.

The literature review may be considered in two principal aspects. The first concerns the characteristics of auditory perception and its significance for the linguistic, cognitive, and academic development of children and adolescents. Publications on disorders of auditory perception and the factors causing them are examined in great detail and depth. The review sets out the causes that may lead not only to deafness but also to reduced auditory perception, which adversely affects the acquisition of language and speech and all aspects of communication.

This part of the review presents not only the commonly known causes of impaired hearing, such as pathology of pregnancy and birth, early childhood diseases, and hereditary factors. The author also provides a thorough and, at the same time, sensitive analysis of the negative impact of noise in classrooms, in schools, and in the urban environment as an additional factor for sensory impairment. She further draws attention to relatively milder hearing loss in some children: such losses often go unnoticed, and the students concerned may show inattention or reduced participation, which is misinterpreted as a behavioral problem rather than as a communication problem caused by a sensory deficit.

Overcoming such barriers requires appropriate support, which may range from special educational services to differentiated instruction and inclusive classroom practices. Ensuring equitable access to learning for students with varying degrees of hearing impairment involves academic, linguistic, socio-emotional, and communication-focused interventions.

This constitutes the second substantial aspect of the literature review: the methods for overcoming the isolation and segregation of these students, and the measures taken and outcomes achieved by the educational policy of the Greek government. Special education falls within legally established processes that ensure individualized interventions for students with hearing loss, namely work with teachers of the deaf or other specialists qualified to provide individual instruction.

Another widely known process is the Individualized Education Program (IEP), which serves as an educational action plan containing academic and developmental goals that can be measured and attained by each individual student according to his or her needs (Elkhatib et al., 2023). It is developed



by a multidisciplinary team of teachers, special education specialists, speech-language pathologists, audiologists, parents, and, where appropriate, the student. The plan addresses not only core academic achievement but also the modes of communication (sign language, spoken language, or total communication), language development, social interaction skills, and self-advocacy skills, and it is linguistically and pedagogically adaptable.

4. Accuracy in citing a representative number of authors.

The bibliography comprises approximately 140 sources (articles and monographs), 36 of which are in Cyrillic and the remainder in Latin script.

5. Theoretical framework of the study.

The second part of the literature review examines the conceptual frameworks, theoretical models, and research findings that define so-called “differentiated instruction.” Differentiated instruction is based on the premise that students do not approach learning in the same way and therefore require systematic adaptation of instruction. The definition encompasses differentiation of content, differentiation of process, and differentiation of product.

Content differentiation refers to the way information is presented so that students can access the material. *Process differentiation* denotes a different manner of teaching, e.g., more repetition and a relatively slower pace. *Product differentiation* concerns the way in which students demonstrate what they have learned: students with hearing impairments may demonstrate their knowledge through oral, written, visual, or multimodal responses.

As I understand from the dissertation, 25,000 teachers in Greece have been trained in this approach to differentiated instruction. The training was delivered online in 14 hours of training sessions, and the seminar was structured into five thematic modules:

- Introduction to differentiated instruction and theoretical framework;
- Differentiation of the social learning environment;
- Differentiation for students with disabilities and/or special educational needs;
- Differentiation for students of Roma origin;
- Differentiation for students with a refugee or migrant background.

In fact, the philosophical concept and thematic structure presented in the literature review constitute the theoretical foundation of the author’s research. I would like to note here a certain degree of repetition between the account of the essence of “differentiated instruction” in the literature review and what is subsequently presented as the core concept of the study.



6. Correspondence between the selected research methodology and methods and the objectives and tasks of the dissertation.

The information on the participating teachers was collected and processed using a specialized personal questionnaire by Karam Siam and Mayada Al, supplemented by the doctoral candidate and presented in the appendices.

Second, a questionnaire was used to assess the extent of change in the communicative, academic, and cognitive achievement and in the classroom participation of students taught through differentiated instruction. This is the SIFTER (Screening Instrument for Targeting Educational Risk), which provides widely recognized and validated indicators for identifying students at risk of educational exclusion resulting from hearing loss. The instrument is completed by teachers to assess educational risk in children with hearing impairment. It is available in three versions: the Preschool SIFTER, developed by Anderson and Matkin; the Elementary SIFTER, developed by Anderson; and the Secondary SIFTER, also developed by Anderson. It consists of 15 items distributed across five subscales (preschool/school achievement, attention, communication, class participation, and school behavior) and is presented in full in the appendices of the dissertation.

SIFTER data are of particular importance for planning differentiated instruction for students with hearing loss and for developing their Individualized Education Program.

The study included 10 teachers from Thessaly who had completed the full training course in differentiated instruction; data from 4 teachers who had not attended this specialized course were used for comparison. To compare the outcomes of differentiated instruction, 27 students with hearing impairments aged 6 to 12 years were assessed.

The data were processed using several specific statistical methods: descriptive statistics, one-way analysis of variance, correlation analysis, and testing of the statistical significance of the differences obtained. This provides a sound evidential basis for the analyses and hypotheses presented.

The analysis of the results is detailed and highly professional; however, the number of participants is very small and does not permit substantial generalizations.

It would also be advisable to compare the findings with data from studies by other authors, in order to highlight more strongly the significance of the study and the role of research of this kind for the sound and effective upbringing and education of children and adolescents with impaired sensory development.



7. Original contribution to the collection and analysis of empirical data.

The results obtained are analyzed and supported by appropriate tables and figures. It was found that students taught with the new differentiated methodology achieved comparatively better results than those taught by teachers without prior preparation in the differentiated approach. For example, the comparative values for academic achievement were 65.8 for differentiated instruction versus 53.4 for standard instruction. Although the difference is not statistically significant, it is highly indicative. The results for all seven hypotheses show improvement in the students' communication abilities, attention, academic achievement, and classroom participation. The data on the work of teachers in private schools, compared with those in public schools, are particularly interesting and positive.

The results further show that, after completing the training, teachers make greater use of technological resources to increase student motivation, whereas untrained teachers demonstrate limited application of content differentiation strategies.

Contributions of the dissertation

A study of this kind has been conducted in Greece for the first time. It establishes the relationship between the type of instruction, the need to train general education teachers in the new type of differentiated instruction, and the improvement of communication skills, academic achievement, attention, and the degree of active classroom participation of students with impaired auditory perception.

The functional profiles and data obtained can be used to develop both individualized interventions for children with hearing impairments and programs of national public significance aimed at optimizing the development of school-age students.

Conclusion:

My assessment of the submitted dissertation is decidedly positive. I propose that the members of the esteemed Scientific Jury vote “YES” and support the defense, awarding the educational and scientific degree of “Doctor” to Elisavet Leonidas Tsimplidou in professional field 7.4. Public Health, doctoral program “Speech-Language Pathology.”

Date: September 1, 2026

Reviewer:
/Prof. Violeta Boyanova, MD, PhD/