

Early Identification of Dyslexia Symptoms in Primary School Students Through EGRA Diagnostics and Differential Approach Methodology

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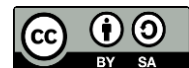
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Abstract. This article analyzes the issue of early detection of dyslexia symptoms in elementary school students using the Early Grade Reading Assessment (EGRA) diagnostic tool. The elementary school stage is a crucial period in the development of students' reading, writing, and speaking skills. It is during this period that the timely identification and resolution of persistent reading difficulties directly impacts subsequent educational success. The purpose of this study was to examine the feasibility of identifying dyslexia symptoms in elementary school students using the EGRA diagnostic tool and to develop a differential approach methodology based on the identified results. This study employed theoretical analysis, pedagogical observation, diagnostic assessment, and comparative analysis. Students' reading abilities were assessed using EGRA components such as phonemic awareness, letter recognition, word decoding, reading fluency, and text comprehension. The results indicate that the EGRA diagnostic tool enables early identification of individual students' reading difficulties and serves as an effective tool for teachers in selecting appropriate pedagogical strategies based on their students' needs.

Keywords: EGRA, dyslexia, early diagnosis, reading literacy, differentiated approach, primary education.



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INTRODUCTION

The primary education system, as a fundamental link in continuous education, forms the initial academic foundations of personal development. At this stage, students develop literacy competencies, in particular, reading, writing and oral speech skills. These skills are an important factor in the successful mastery of subjects at later stages. Therefore, early identification of difficulties associated with reading in primary grades and pedagogical support are considered an urgent scientific and practical task.

In today's globalization and the process of assessing the quality of education based on international criteria, special attention is paid to determining the reading literacy of primary school students. According to international statistical data, although the level of coverage of primary education has significantly increased in many countries, the quality of reading and comprehension of text by students is not achieving the expected results. This situation indicates the importance of not only coverage, but also quality monitoring in the education system.

Dyslexia is one of the most important forms of reading difficulties in primary school students. Dyslexia is characterized by persistent difficulties in reading speed, accuracy, phonological processing, and understanding sound-letter relationships, despite normal intellectual development. If this condition is not detected early, students may experience academic failure, decreased motivation, and psychological discomfort.

In recent years, EGRA (Early Grade Reading Assessment) has been widely introduced in international pedagogical research as an effective tool for diagnosing reading competencies in primary school students. This tool allows for individual assessment of students' phonemic awareness, letter recognition, word decoding, fluent reading, and text comprehension skills. Based on the results of EGRA, it is possible to divide students into different reading profiles and develop appropriate pedagogical intervention strategies for them.

The relevance of this study is that there is a growing need for scientifically based diagnostic mechanisms and differential approach methods for early detection of dyslexia symptoms in primary school students. In this regard, the article analyzes the capabilities of EGRA diagnostics, its effectiveness in detecting dyslexia symptoms, and its role in organizing a differential approach.

The purpose of the study is to identify dyslexia symptoms in primary school students using EGRA diagnostics and develop a differential approach method based on the results.

RESEARCH METHOD

In this study, a mixed methodological approach was used to identify symptoms of dyslexia in primary school students and develop a differential approach methodology based on EGRA diagnostics. Qualitative and quantitative analysis methods were used in an integrated manner during the research process.

In the theoretical part of the study, a content analysis of scientific and pedagogical literature, international reports, and methodological guides on EGRA diagnostics was conducted. In particular, domestic and foreign studies on reading literacy in primary education, dyslexia diagnostics, and differential education were studied based on a comparative analysis. This stage served to form the conceptual foundations of the study.

In the empirical research process, pedagogical observation, diagnostic testing, and individual assessment methods were used. Primary school students were selected as the object of the study. The EGRA (Early Grade Reading Assessment) diagnostic tool was used to assess the reading skills of students. Diagnostics were carried out on the basis of the following components: phonemic awareness, letter and sound recognition, word decoding, oral reading fluency, and text comprehension. The results of students for each component were recorded and analyzed individually.

Statistical analysis and comparative analysis methods were used to process the data obtained. Based on the diagnostic results, students were divided into several groups according to the level of difficulty in reading skills. Through this classification, students

with dyslexia symptoms were identified, and recommendations for a differential pedagogical approach were developed for them. The differential methodology was formed taking into account the individual needs of students, learning disabilities, and level of development.

In order to ensure the reliability of the study, the diagnostic process was organized on the basis of a standardized procedure, the results were checked and compared several times. Thus, EGRA diagnostics was evaluated as an effective scientific and practical tool for early detection of dyslexia symptoms in primary school students and development of individual educational strategies.

RESULTS AND DISCUSSION

The primary education system serves as the foundation for subsequent stages of education. It is at this stage that students develop the basic skills of reading, writing, and speaking. Scientific and pedagogical research shows that students who do not develop reading literacy skills to a sufficient degree in primary school experience persistent difficulties in the subsequent educational process. This situation has a significant impact not only on the subject of their native language, but also on the process of mastering mathematics, natural sciences, and social sciences. Although the level of coverage of primary education has been increasing worldwide in recent years, the issue of the quality of education remains relevant. According to international studies, in many countries, students have difficulty reading and understanding simple text, despite having studied at school for several years. This situation indicates the need to monitor not only coverage, but also quality indicators in the educational process. Dyslexia is a specific disorder that is manifested by persistent difficulties in reading speed, accuracy, and understanding sound-letter relationships, despite the fact that the intellectual development of the student is within the norm. If the symptoms of dyslexia are not detected early, the student may develop low learning, lack of self-confidence, and a negative attitude towards school. Scientific research shows that early identification of dyslexia-related difficulties and the selection of an appropriate pedagogical approach are one of the important factors determining the student's subsequent educational success. Therefore, the concept of early diagnosis is gaining particular importance in the education system today. Early diagnosis allows for the identification of students' reading problems at an early stage and the timely implementation of pedagogical measures aimed at eliminating them. This approach serves to individualize the educational process, develop students' reading literacy, and improve the overall quality of education. Let's consider the question of why reading assessments are necessary in primary grades? In many countries around the world, primary education coverage has reached unprecedented levels. This is driven by the United Nations Education for All (EFA) initiative and the targeted efforts under the Millennium Development Goals (MDGs), which are set to be achieved by 2015. Primary education coverage in developing regions rose from 83 percent in 2000 to an average of 91 percent in 2015. During this time, the number of school-age children out of school has almost halved. Data from the World Bank's EdStats platform now allows for comparison of results from different international assessments of students in grades 1–3 in low-income countries. However, there is evidence that while coverage has increased, average educational outcomes remain very low in most low-income countries.

In recent years, international and national studies have widely used the EGRA (Early Grade Reading Assessment) diagnostic tool as an effective tool for assessing the reading skills of primary school students. The theoretical foundations and practical

application of EGRA diagnostics have been widely covered in international scientific literature.

In particular, the pedagogical essence and measurement construct of EGRA have been deeply analyzed in the research conducted by Margaret M. Dubeck. The author interprets EGRA not only as an assessment tool, but also as a diagnostic mechanism that identifies the structural components of the reading process. Dubeck's research scientifically substantiates which reading skills (phonemic sensitivity, decoding, reading fluency, comprehension) EGRA tasks measure and shows how this data can be used to monitor students' reading skills in the education system.

In 2021, a study by Margaret M. Dubeck, Jonathan M. B. Stern, and Nabacwa developed a methodology for creating "learner profiles" based on EGRA data in the Ugandan context. This approach allows for the analysis of students' reading levels across skills rather than total scores. As a result, students with different levels of reading difficulties are identified and appropriate teaching strategies are recommended for them. This methodology is important in the scientific justification of the differentiated approach. Amber Gove has a special place in the methodological structure and international implementation of the EGRA tool. She developed the theoretical and methodological foundations for the standard components of EGRA — phonemic awareness, letter recognition, word reading, oral reading fluency, and text comprehension — and contributed to the global implementation of the tool.

EGRA: Early Grade Reading Assessment, edited by Amber Gove and Anna Wetterberg, examines the practical application of EGRA in different countries, its integration with reading intervention programs, and the results obtained. This resource provides a scientific justification for the process of transforming EGRA from an assessment tool to a mechanism for improving the quality of education.

Anna Wetterberg's research, on the other hand, highlights the issues of using EGRA results at the level of education policy. The author shows that it is possible to plan the educational process, adapt teaching methods, and develop intervention strategies based on the needs of students based on EGRA data. This approach provides an integral link between diagnostics and pedagogical decisions. In research conducted in the Indonesian context, Jonathan M. B. Stern and Anna Dick developed a methodology for categorizing students according to their reading skills based on EGRA data. They classified students according to "learner profiles" and recommended appropriate instructional approaches for each category

CONCLUSION

In conclusion, we can say that the process of forming reading literacy in primary school students, the psychological and pedagogical foundations of reading difficulties, and the theoretical and practical aspects of early detection of dyslexia symptoms were comprehensively studied. The above study proved that early detection of dyslexia symptoms is not only an important factor in developing a student's reading skills, but also in ensuring his success in the general educational process. Because timely pedagogical assistance forms self-confidence in the student, strengthens a positive attitude towards education, and prevents possible problems at later stages.

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