

#### **RESEARCH ARTICLE**

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# Improving the Reading Skills of a Third-Grade Primary School Student with Specific Learning Disability

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# **ABSTRACT**

This study aims to improve the reading skills of a third-grade primary school student with specific learning disfficulties. The study has been conducted with a third-grade primary school student diagnosed with specific learning disabilities who was studying at a Special Education and Rehabilitation Center in Meram district of Konya province between the 2019-2020 academic years. In the study, first of all, the student's current reading level, accurate reading, reading speed, and reading prosody are determined. In this regard, the student's reading is recorded by having the student read four texts appropriate to his level, and the student's reading level is determined by examining the records. Then, an individualized education program based on the syllabary method is prepared for the student. The program is implemented for a total of 43 lesson hours, one lesson two days a week, over a 22-week period. Audio recordings, video recordings, observation notes, and reading prosody phased scoring key are used as data collection tools in the study. In addition, the student's correct reading percentages and reading speeds are also measured. A total of four texts are used as pre- and post-tests. According to the data obtained from the findings, reading accuracy increases from 64.63% (Concerned Reading Level) to 93.33% (Improvable Reading Level); reading speed increases from 16 words to 52.75 words. It is also determined that reading prosody increases from 25% to 62.50%.

Keywords: Specific learning disability, dyslexia, reading disability, syllabary method, fluent reading.

#### Introduction

All Specific learning disability is a condition in which unidentified neurological and psychological factors cause serious impairment of the expected normal progress in the individual's mental, academic and language processes (Özsoy et al., 2002). If we briefly explain learning as the acquisition of knowledge, we can interpret the problems that occur due to the difficulties experienced by the individual in acquiring knowledge as difficulties in learning (Korkmazlar, 2003). Students who face learning difficulties generally have low academic success. Especially in their surroundings, these people are found inadequate in many areas. In addition to their academic failures, these individuals generalize all negative situations because they think that they are unsuccessful in terms of other skills as well. This generalization causes individuals who have problems in learning to have low selfesteem (Undheim and Sund, 2008).

According to another definition made by the US National Learning Disorders Board, learning disorder is a general concept and is defined as disorders that occur to a significant extent in the development of the individual's skills in the fields of reading, writing, listening, speaking and mathematics, and in the application of these acquired skills (Hammill, 1990). A person with a learning disability has a normal or above-normal intelligence level, does not have any psychological problems, a brain-based pathology, or a sensory deficit. However, they have significant difficulty in acquiring and applying reading, speaking, writing, listening, reasoning, and mathematical skills. They also have problems in self-management, social

perception, and interaction with their environment, and who cannot achieve a certain level of success in line with their peers, age, and intelligence level, despite receiving the education that everyone else receives (Siegel, 2005).

According to the classification of the American Psychiatric Association, learning disabilities are classified as follows:

- Difficulty in reading,
- Difficulty in mathematics
- Difficulty in written expression,
- Learning disorder not otherwise specified (Hammill, 1990).

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Reading is an instructive and entertaining tool that an individual uses constantly throughout his life. Despite the use of many audiovisual techniques in our society, reading continues to exist as one of the oldest means of obtaining information. Experts state that reading will be used as the most effective tool in accessing and learning information not only today but also in the future (Akçamete, 1990). A person needs reading skills in his childhood, in his daily life, and throughout his life (Güldenoğlu, 2016). Reading skills are of great importance for an individual to reach self-awareness, organize his relationships in the society he lives in, understand his purpose of existence, and develop his wealth of knowledge (Kimmel and Segel, 1983). Reading skill, which is one of the most important skills of an individual, is used throughout education, and individuals will constantly improve themselves by it. Reading skills are important not only in Turkish teaching courses but also in other branches. Because it is known that individuals who do not have reading skills will fail in their academic lives (Sidekli, 2005).

Fluent reading, which is one of the reading components, is very important for an individual to gain reading skills. Fluent reading is the ability to read words quickly, meaningfully, easily and effectively, and it means reading sentences and text without effort (Carnie, 2006). In other words, fluency is the ability to read a text quickly without any problems or unnecessary pauses. It is the ability to read accurately, quickly and smoothly (Kodan, 2017). Fluent reading means speaking, paying attention to stress and intonation, paying attention to punctuation marks while reading. It happens without word repetition and comebacks, without spelling or unnecessary pauses, and by paying attention to analysis and meaning units (Akyol, 2003). Fluency, which is called the key to reading skill, serves as a bridge in the recognition and interpretation of the read text (Carnine et al., 2006). It is important to select the right texts for performing fluent reading studies in order to determine the child's reading level (1-8th grades). The word counts of these texts should be different according to grades. These are as follows (Akyol and Kodan, 2016: 7-21):

- a) First and second grades, 25-100 words
- b) Third and fourth grades, 100-200 words
- c) Fifth and sixth grades, 200-300 words
- d) Seventh and eighth grades, 300-350 words

In order for students to be able to read fluently, they must have acquired some skills beforehand. These skills are also called f luent reading skills. The skills required for f luent reading are: Accurate reading, speed reading and prosodic reading (Deeney, 2010; Klauda & Guthrie, 2008; Pikulski & Chard, 2005; Rasinski, 1989; Vilger, 2008).

#### **Accurate Reading**

Accurate reading is the correct and meaningful reading of the words in the sentence (Torgesen & Hudson, 2006). In other words, it means pronouncing each word in the text read correctly. Accurate reading skill requires understanding the alphabet principles in our language, having a large vocabulary, comprehending sound events, making predictions for the next word to be read in the text, grasping and understanding the clues given in the text (Vilger, 2008).

# Speed Reading

Speed reading can be defined as fast word recognition and reading time (Baştuğ, 2012, p. 38). Speed reading is a method used by teachers in schools as a competition. Teachers make children understand the importance of speed reading by rewarding the students who read the fastest per minute so that they become eager and enthusiastic about reading. To determine the reading speed, teachers find the reading speed of the students by determining how many words the students read in a minute. It would be correct to call the time it takes the reader to finish the reading text as reading speed. Reluctant and slow reading negatively affects the fluency of reading (Rasinski, 2000; cited in Baştuğ, 2012: 39).

# **Prosodic Reading**

Prosody refers to the reader's ability to read the text smoothly using appropriate sentences and expressions (Deeney, 2010). Prosody, a linguistic term, is related to the rhythm and intonation of speech. In other words, it would be correct to call prosody the music of spoken language (Dowhower, 1991; Schreiber, 1991). Prosodic reading is reading in which the reader adjusts the tone and rhythm of voice in accordance with the text he reads and pays attention to punctuation marks (Dowhower, 1991; Solic & Allington, 2012, p. 112).

Some students seem to experience certain difficulties when learning to read. It is necessary to intervene in the situations of these students at the beginning of their educational life and seek solutions to their problems. Otherwise, students may have to struggle with problems caused by reading difficulties throughout their lives (Sidekli & Yang, 2005). It is observed that students who have problems in reading and writing are usually diagnosed with dyslexia or reading difficulty. Dyslexia is defined as the insufficient level of reading, spelling and writing skills expected depending on the intelligence and age of the individual. According to Bingöl (2003), dyslexia is "a partial reading disorder that is a higher cortical function of the brain related to language." According to another definition, dyslexia is the difficulties seen in the process of learning to read, spelling and trying to understand general information (Everatt, 1999). According to Razon (1976), dyslexia is explained as a reading disorder that can arise from disorders in spoken and written

language, lack of perception, difficulty in structuring space and time, and can be observed especially during reading. Dyslexia is one of the most common disorders among other learning disabilities. Reading difficulty, which is a learning problem that affects at least one in five children and is seen in every individual regardless of culture, race and economic level (Saraç, 2014, p. 71), may be interpreted as the individual misreading words while reading only. However, as explained in the definitions, the problems experienced by the individual in all processes from pronunciation to reading comprehension are also included in the scope of reading difficulty (Sarıpınar & Erden, 2010). Developmental characteristics and behaviors in individuals with reading difficulties are listed as follows (Ergin, 2015);

- They have a reading level well below their age.
- While reading, they lose track of where they left off and frequently skip lines.
- They have difficulty understanding the texts they read.
- They can read visually, by looking at pictures.
- They cannot read fluently while reading.
- Their vocabulary is small.
- They do not pay attention to punctuation marks while reading.
- They reverse sounds and words as they write.
- They skip some words while reading.

The syllabary method begins teaching students how to form syllables by first teaching them to read and write. One of the most important features of the syllabary method is to teach the student how to combine consonants with vowels to form syllables by showing the types of syllables that each letter can form. When the student learns to form and write syllables with this method, he/she learns how to write letters at the beginning, middle and end of words, and the pronunciation of sounds by practicing the skill of creating new words. Educators think that the syllabary method includes both letters, sounds and words. It is known that good results are obtained in reading when this method is applied in languages such as Japanese, Portuguese and Spanish. It can be said that the syllabary method is suitable for teaching Turkish reading and writing (Demir, 2015). This method is also preferred for students who have reading difficulties. Because it can be said that learning to read and write is easier and faster with the effective use of syllable table teaching. Classroom teachers contribute to the learning of new words by systematically planning the teaching of syllables prepared for students with learning disabilities (Uygun, 2022).

The problems experienced by students with specific learning difficulties in reading constitute an obstacle in all academic fields. The student's failure in reading plays a negative role in his desire to go to school, his communication with his peers, and his ability to become a useful individual to society. There are situations where the student, who tries to cope with situations such as decreasing motivation and increasing reluctance to read, being away from school, being excluded by his peers, and not being understood by the educator, cannot develop his reading skills on his own. In these cases, the student's reading skills can be improved thanks to an individual education program specially prepared for the student. In the research, syllable method-based education plans have been prepared according to student performance.

The aim of the study is to improve the reading skills of a third-grade primary school student with specific learning disabilities. Taking into account the individual characteristics of the student with specific learning disabilities, an educational program to be implemented at certain times per week has been prepared and the aim is to improve the student's reading skills. For the purpose of this research, answers are sought to the following questions:

- 1. What is the current reading level (by taking into account reading speed, accurate reading, and prosody) of a thirdgrade primary school student with specific learning disabilities?
- What kind of activities can improve the reading performance of a third-grade primary school student with specific learning disabilities?
- 3. What is the current reading level (by taking into account reading speed, accurate reading, prosody) of a third-grade primary school student with specific learning difficulties after the syllable method-based individualized education program?
- 4. How does the reading performance of a third-grade primary school student with specific learning difficulties improve after the individualized education program based on the syllable method?

# **METHOD**

#### Research Design

Action research method, which is one of the qualitative research designs, has been used in this study. Action research aims to determine the actions to be taken to improve the existing problem situation by evaluating the application from a critical perspective, under the supervision of expert researchers, with the participation of practitioners and the party that has the problem (Yıldırım & Şimşek, 2005). "Action research is a scientific research process carried out in cyclical or spiral steps, focused on ensuring change and development, involving individuals' own practices, collecting data systematically and preparing and implementing new action plans based on them." (Gürgür, 2017, p. 39). Action research is a development model that enables students to learn and at the same time improve and maintain what has been learned (Rawlinson & Little, 2004; Guskey, 2002). This model is a process in which the concepts

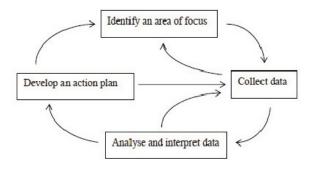
of research and development are interconnected, ensuring the success of the concepts of change and development. Action research allows for conscious change and awareness of this change (Dick, 1993, 2002). Action research is a specific social process that focuses on a problem or specific practices (Baker & Logan, 2006). The aim of this process is to minimize the problem and increase the adequacy of the activities being implemented (Masters, 1995; Stringer, 1996).

This study aims to improve the reading skills of a third-grade primary school student with specific learning disabilities. Action research design has been preferred in the research in order to be able to work on solving problems such as the student having specific learning difficulties, making frequent reading mistakes while reading, not being able to read texts fluently, and having problems combining syllables. The research has been conducted over a 22-week period in the 2019-2020 academic year. In action research, there are various methods and techniques used during the collection of data regarding the problem to be improved and the analysis of the collected data. Among these methods and techniques, observation, individual interview, document scanning, keeping a diary, survey, case study, and structured interview questions are the most commonly used methods and techniques (Aksoy, 2003). In this research, data collection has been carried out in three stages: taking preliminary measurements, application process and taking final measurements. Audio recordings, video recordings, observation notes have been used as data collection tools, and the student's reading speed, reading accuracy and reading prosody have been measured. As a preliminary measurement, four texts have been read aloud to the student and recorded on a voice recorder. Preliminary measurements have been analyzed by the researcher by listening to these recordings, and the student's correct reading percentage, reading speed, and reading prosody have been calculated. Then, the implementation process of the individualized education program based on the syllabary method begins. In order to take the final measurements of the student who completes the application process, the four texts they read during the preliminary measurement have been read aloud by the student and recorded again. These recordings have been listened to by the researcher and the student's last measurements have been analyzed, and the student's correct reading percentage, reading speed and reading prosody have been calculated. Finally, the results obtained in the preliminary and final measurements have been interpreted.

One of the most important features of action research is the role of the researcher. In action research, the researcher is the person who observes, implements, intervenes and evaluates the research when necessary. There are different types of action research, one of which is participatory action research. Participatory action research can be called a new method, technique, application or technology (Şencan, 2005, cited in Uygun, 2019). Participatory action research, which is one of the types of action research, has been adopted in this research. Participatory action research offers the opportunity to create accurate and meaningful learning experiences for students. In these researches, the process proceeds systematically and socially. Thanks to this method, the researcher has the opportunity to evaluate and test his own application, and to identify and change deficiencies in the application (O'Sullivan, & MacPhail, 2010). In this research, the researcher played an active role in the process and carried out the individualized education program based on the syllabary method.

Action research covers a cycle that must be implemented in a certain order and is interconnected at every stage.

In this research, the process was planned in a certain order and then implementation started. First, the problem situation was determined according to the researcher aiming to find a solution for the lack of reading skills of the student who is a third-grade primary school student with specific learning difficulties in the Special Education and Rehabilitation Center. After the problem situation was determined, the research design was decided. Action research design was preferred in the study in order to conduct studies to eliminate problems such as the student participant in this study having specific learning difficulties and making frequent reading mistakes while reading, not being able to read texts fluently, and having problems combining syllables. After the research design was selected, the participant was decided. While selecting the participant, a third-grade primary school student diagnosed with specific learning disabilities was preferred. The fact that the participant was the researcher's own student and that the researcher got to know the individual characteristics of the participant was very beneficial in terms of preparing the most suitable program for the participant. With the decision of the participant, the preparation of the action plan started. While preparing the action plan, the syllabary method was researched in the literature, the most appropriate book set was



**Fig. 1:** Dialectical action research cycle (Adapted from Mills, 2003).

selected and the most effective methods and techniques were determined. An individualized education program based on the syllabary method was prepared, and it was decided on when and how the program would be implemented. After the action plan was prepared, preliminary measurements of the student were taken. After preliminary measurements were taken, an individualized training program based on the syllabary method began to be implemented. Final measurements were taken after the application. Finally, the collected data was analyzed and interpreted. The action research process of this research is given in Figure 3.2.

Action research is the work carried out on organizing the necessary environment in this context, which ensures that the student's activities in education and training life are more qualified than before and makes the situation better by intervening in the problems that arise (McTaggart, 1997, pp. 1-12). In this research, it is aimed to improve the reading skills of a third-grade primary school student with specific learning disabilities, and to eliminate the problems experienced in reading skills, which would greatly affect the student's academic life, and to improve this situation of the student. The main purpose of action research is to improve the student's situation by increasing the quality of education and training. In this research, the action plan was implemented systematically. The researcher managed the training process impartially and recorded the implementation process without giving any guidance. The researcher benefited from his own experiences and experiences when choosing the syllabary method during the application process. The researcher experienced that the sound-based reading method and sentence-based reading method he used with his own students did not have a positive effect on the reading skills of some students, so he decided to try the syllable method with his student, who was the participant of this research.

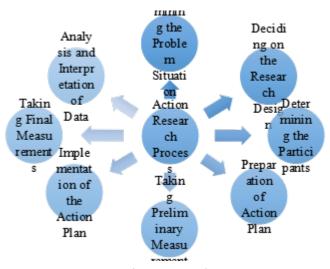


Fig. 2: Action Research Process

The researcher, who has applied the syllable method many times before, saw that this method was effective in improving students' reading skills and therefore decided to apply this method. While explaining the application process, expressions as clear as possible were used, avoiding unnecessary details. In the research, the action plan was adhered to in every aspect of the pre-implementation, implementation process and post-implementation phase.

#### **Participants**

This research has been conducted with Cem, a third-grade primary school student who attends a Special Education and Rehabilitation Center in Konya and has problems with his reading skills due to a specific learning disability. In order for the research to comply with ethical values, the student's name is not deciphered and he is named Cem instead of his real name. Cem, who was born in Selçuklu on 22.05.2012, is the youngest child of the family. Cem, who has three siblings, has two older brothers. One of his older brothers is 19 years old and the other is 14 years old. The elder brother works in the auto electrician shop of a family friend in his neighborhood, and the other one is in the 8th grade of secondary school. Cem's mother and father are primary school graduates. His mother is a housewife and his father is a long-distance driver. The family's income is at a medium level. The household is supported by the salaries of both the father and the elder brother.

Cem, who lives in the Selçuklu district of Konya, goes to the 3rd grade of a primary school 25 km away from his home. Cem, a very calm and popular student at school, is a child who studies diligently, tries to do the best he can, and is loved by his friends. The researcher is Cem's teacher at the Special Education and Rehabilitation Center where he attends. The researcher, who is a teacher at the rehabilitation center, meets Cem there. He teaches Cem with 40-minute lessons two days a week. During the interviews with the mother of Cem, who has a specific learning disability, it is learned that this special situation has been noticed by the kindergarten teacher before, and then the RAM center has been visited and examinations have been carried out. Although the family do not understand the situation of their child at first, as a result of their research and conversations with teachers, they accept the difficulty their child goes through and look for a solution. His mother, who is a primary school graduate, is the person who helps and supports Cem the most in the family. The mother states that she takes Cem to every lesson, encourages her son to do his homework at home, and gives him rewards. His brothers also help Cem with his lessons as much as they can. Cem, who stays in the same room with his younger brother, states that he gets along very well with his older brother, and that he plays football with him outside when he finishes his homework and enjoys it very much. Cem's older

brother, who is a high school graduate, also takes great care of him, teaches him about cars by giving him a toy car as a gift, and plays games with him. Cem, who has good relations with his father, only states that he misses and loves him very much.

In the interviews with his mother, it is stated that Cem is the first to encounter that no one else in the family has a specific learning disability. Cem, who has a very good family upbringing, is a child who is known for his respect at every opportunity and is set as an example by his teachers and family. The problems he experiences while studying at school does not discourage him, and every time he comes to training, he says to the special education teacher at the rehabilitation center, who is the researcher of this study, that he should work even harder. The fact that he could not distinguish most of the words and confused the letters while reading was effective in the teachers' understanding of Cem's situation at school. His teachers informed his family that he was very excited during the readings at school and could not complete the reading. The researcher explains his situation to Cem and informs him before starting the study. He is encouraged that if he studies with determination and enthusiasm, his deficiencies in reading skills due to his learning disability can be corrected and he can read correctly. Cem, who is both excited and anxious, promises his special education teacher, the researcher of this study, that he will work hard to improve this reading problem. Believing that Cem is willing in this regard, the researcher starts working by preparing an individual training program that he believes will be beneficial, taking into account the student's interests, wishes and needs.

#### **Data Collection Tools**

In this study, which aims to improve the reading skills of a third-grade primary school student with specific learning disabilities, data collection has been carried out in three stages: taking preliminary measurements, application process and taking final measurements. Audio recordings, video recordings, researcher's observation notes and measurement tools have been used as data collection tools.

Accurate reading, reading speed and reading prosody have been measured to determine the participant's reading performance before and after the application.

#### **Voice Recordings**

A voice recorder has been used to take preliminary and final measurements and to record the texts read during the application. The four texts that the student read aloud before and after the application have been recorded by the researcher in order to fully evaluate the student's reading speed, reading accuracy, reading prosody and errors made during reading. Preliminary measurement records have been recorded as 1

minute, and final measurement records have been recorded as 1 minute. The recordings have been listened to carefully by the researcher in a quiet environment and the necessary pre- and post-measurements have been analyzed.

# **Video Recordings**

A video recorder has been used to take preliminary and final measurements and to record the texts read during the application. The researcher video-recorded the implementation process of the training plan they prepared and watched all the details during the implementation again in order to be able to add it to their study later. Video recording times have been recorded for each lesson hour with the start of the application. Thanks to these video recordings, the student's gestures, facial expressions and intonations while reading have been reviewed in more detail and allowed the researcher to record them in detail in their study.

#### **Observation Notes**

Taking pre- and post-measurements and all studies carried out during the application and notifications regarding the process have been recorded daily by the researcher. During the implementation of the education plan, the researcher recorded in detail the answers to questions such as which letters the student made mistakes in, which syllables he had problems combining, and which words he could not read fluently. These notes have been made a clean copy after each lesson, making it easier for the researcher to follow the student's progress.

#### Measuring Reading Accuracy

Reading accuracy percentage is determined by calculating the percentage of the words the student read correctly during a 60-second read aloud. The percentage of correct reading is "the number of words read correctly / the number of words read) x 100 (Daane et al., 2005; Dowhower, 1991; Hudson et al., 2005; Valencia et al., 2010). Correct reading is the correct and meaningful reading of the words in the sentence (Torgesen and Hudson, 2006). In this study, four texts that the student had not encountered before and that were suitable for his level were read aloud and recorded, and these recordings were later examined and the student's reading accuracy was measured. In interpreting the findings obtained from accurate reading scores, the reading percentage score ranges described by Vaughn and Linan-Thompson (2004) have been used.

Free reading level (between 96% and 100%): It is the level at which the student can read independently without any support.

**Developable reading level (between 90% and 95%):** It is the level at which the student can read with instructional support.

Concerned reading level (89% and below): It is the level at which the student has difficulty in reading despite receiving support.

Measuring Reading Speed

To determine the student's reading speed, the words read correctly in 1 minute of reading time are calculated. The formula is calculated as "Total number of words read – errors made = number of words read correctly" (Deeney, 2010; Fuchs et al., 2001). There is no intervention to the student while reading; when the student corrects his own mistakes, the word he reads is considered correct. In this study, four texts that the student had not encountered before were read aloud and recorded. Then, the researcher examined the records and measured the student's reading speed. There are no standardized norms for reading speed in our country. However, Güneş (2013) developed some criteria as a result of his studies and practices. In this study, reading speed

is evaluated based on the following criteria (Güneş, 2013) (Table 1).

# **Measuring Reading Prosody**

In measuring reading prosody, first, a text appropriate to the student's level is given and the student's reading for 60 seconds is recorded. Then, the recordings are examined by the researcher, taking into account features such as the student's emphasis, intonation, and whether the punctuation marks are followed while reading, and the student's reading prosody is measured according to the dimensions of the reading prosody phased scoring key (Akyol, 2014). In this research, the method developed by Zutell and Rasinski (1991) and Yıldırım et al. "Reading Prosody Progressive Scoring Key" adapted to Turkish by (2009) has been used. The table below includes the reading prosody phased scoring key evaluation criteria (Table 2).

The lowest score the student will get from this key is 4 and the highest score is 16. When calculating, the student's

Table 1: Targeted reading rates on a class basis developed by Güneş (2013)

Grades	Autumn	Winter	Spring
1	0-10	10-50	30-90
2	30-80	50-100	70-130
3	50-110	70-120	80-140
4	70-120	80-130	90-140

Table 2: Reading prosody progressive scoring key

Dimension	1	2	3	4
A. Expression and Voice Level	enthusiasm in his voice while reading. It is as if he reads		voice sounds like natural speech. Occasionally he switches to expressionless reading. Volume throughout the text is generally	Reads with good expression and enthusiasm throughout the text. Reads naturally. Expression and volume vary depending on one's interpretation of the text.
B. Phrases	Reading is monotonous and he has poor understanding of phrase boundaries, frequently reading word by word.	Frequently used two- and three-word phrases give the impression of disjointed reading; It fails to indicate sentence and clause endings due to improper stress and intonation.	without pauses, pausing mid-sentence for breath,	sufficient attention to
C. Smoothness	Long pauses, hesitations, false starts, fading, repetitions and/ or multiple attempts are often observed.	points" in the text, where long	S ome inter r upt ions in smoothness occur due to difficulties caused by certain words and/or structures.	Readingis generally smooth with occasional interruptions, but vocabulary and structure difficulties are often quickly resolved through self-correction.
D. Speed	Continues slowly and with difficulty.	Moderately slow.	An erratic mix of fast and slow reading.	like speaking constantly

score from the scoring key is divided by 16 and multiplied by 100 to find the student's prosody score percentage. Prosody score = expression and voice level score + phrase score + smoothness score + speed score. Prosody score percentage is calculated as = expression and voice level score + phrase score + smoothness score + speed score/16 X100. A student who scores below 10 from the rubric indicates that the student has a fluency problem, a student who scores above 10 does not have a problem in reading, and a score higher than that indicates that the student is successful (Yıldırım et al., 2009).

#### **Data Collection**

In the study, first of all, the student's current reading level was determined. In order to determine Cem's reading speed, reading accuracy and prosody in the first lesson and the last lesson, four texts taken from the MEB Turkish 3rd grade textbook, appropriate to his level and approved by the Board of Education and Discipline, which he had not encountered before, were read aloud and recorded with a video camera. During the research process, faculty members working in the thesis monitoring committees and the university, the classroom teacher and the family (mother) also took part and cooperated with the researcher. To determine the suitability of the selected texts, the opinions of two academicians who are experts in their fields were consulted. The selected texts were read after confirmation that they were appropriate for the student's level. First, the reading text "The Field Mouse and the Snail Family" was read aloud and recorded with a video camera. During this reading, the researcher noted which words Cem made mistakes in and which words he read correctly. The number of words read in one minute was calculated and notes were taken. After completing the first reading text, Cem was asked to read a text called "Veysel and Musa", which he had not encountered before and was selected from a Turkish textbook suitable for his level, and it was recorded with a video camera. The researcher noted the mistakes made while reading by calculating the number of correct words read in a minute. Later, Cem was made to read the text called "Little Boat" and a video was recorded. The last reading text, "Punctuation Game", was recorded by Cem. Data collection was done by the researcher. The researcher, who was the participant's teacher at the rehabilitation center, recorded the data impartially, without any intervention. During the application process, the researcher tried to solve the student's problem and aimed to improve the application by taking advantage of both the experiences they gained from the teaching profession and the achievements of their academic processes.

#### **Data Analysis**

In analyzing the data, error numbers and error percentages have been determined for each text by using the reading prosody gradual scoring key, reading speed and reading percentage formulas explained in detail in the data collection tools section. It calculates the student's reading speed, reading accuracy and prosody for the student's reading level and enters the necessary data into the computer environment.

The pre-test and post-test texts have been examined for the student on the basis of all scales and the results obtained. The obtained results have been averaged separately for the pre-test and post-test. In light of the results, the student's pre-test and post-test values have been compared on the basis of the same scales and it has been examined whether the individualized education program based on the syllabary method creates a change in the student's condition and, if so, to what extent.

#### **FINDINGS**

In this part of the study, the findings obtained in line with the research questions are presented. The research questions addressed and the findings obtained are as follows:

# **Findings Regarding the First Sub-Problem**

What is the current reading level (by taking into account reading speed, accurate reading, and prosody) of a third grade primary school student with specific learning disabilities?

The findings and comments regarding this sub-problem and the pre-test results of the student's reading accuracy, reading speed and prosody scores, which are fluent reading skills, are shown in Table 3 and the analysis results are explained. Reading accuracy is based on word recognition percentage, speed is based on the number of correct words read in one minute, and prosody is based on reading prosody progressive scoring key results (Table 3).

When the data regarding the pre-test reading passages of a third grade primary school student with specific learning disabilities are analyzed in detail:

- The average reading speed of the student is 16 words,
- The average of the student's correct reading percentage is 64.63%,
- The average reading prosody score of the student is 4,
- The average reading prosody percentage of the student is 25%.

In order to determine the student's accurate reading level, the following reading percentage score ranges described by Vaughn and Linan-Thompson (2004) have been used..

Free reading level (between 96% and 100%): It is the level at which the student can read independently without any support.

**Developable reading level (between 90% and 95%):** It is the level at which the student can read with instructional support.

Concerned reading level (89% and below): It is the level at which the student has difficulty in reading despite receiving support.

In line with these values, the fact that the student's accurate reading percentage in the pre-test measurements is 64.63% shows that the student is at the worrying reading level.

The student's reading speed values are interpreted according to the table below, developed by Güneş (2013) as a result of his studies and practices (Table 4).

Based on the table, the average reading speed of the student is 16 words, which shows that he is behind his grade level, the 3rd grade of primary school. Considering the student's reading speed, it can be seen that his grade level is at the level of the first grade of primary school.

The lowest score the student will receive from the reading prosody graded scoring key is 4 and the highest score is 16. However, when we look at the pre-test measurements, we see that the student receives the lowest score of 4 points. A student who scores below 10 from the rubric indicates that the student has a fluency problem, a student who scores above 10 does

not have a problem in reading, and a score higher than that indicates that the student is successful (Yıldırım et al., 2009). Based on this scoring system, it is concluded that the student has a fluency problem in reading.

# Findings Regarding the Second Sub-Problem

What kind of activities can improve the reading performance of a third-grade primary school student with specific learning disabilities?

The findings and comments regarding this sub-problem are given below in Table 5, which contains information about the studies of the individualized education program based on the syllabary method that the researcher applied to the participant.

Findings regarding Table 5 are given by the researcher explaining and interpreting in detail the studies of the individualized education program based on the syllabary method applied to the participant, in the form of lessons. Below, as an example, information about the 1st, 2nd, 3rd course studies is given (Table 5).

Table of Hemmins of Hemmins of Hemmins of Hemmins						
Reading Texts	Reading Speed	Reading Accuracy (%)	Prosody	Percentage of Prosody (%)		
Text 1	16=25-9	% 64	4	% 25		
Text 2	15=24-9	% 62,5	4	% 25		
Text 3	16=24-8	% 66,7	4	% 25		
Text 4	17=26-9	% 65,3	4	% 25		
Average	16	% 64.63	4	% 25		

Table 3: Preliminary measurements of reading level

- 1. Reading speed (number of words read correctly in one minute) = total number of words read number of words read incorrectly
- 2. Correct reading % = number of words read correctly in one minute / total number of words read x 100
- 3. Prosody score = expression and sound level score + meaning units and intonation score + smoothness score + speed score

Grades Autumn Winter Spring 1 0-10 10-50 30-90 2 30-80 50-100 70-130 3 50-110 70-120 80-140 4 70 - 12080-130 90-140

Table 4: Targeted reading rates by grade

Table 5: Information about the syllable method study

Dates	Lessons	Activites	Duration
08.08.2019	Lesson 1	The texts are read aloud and recorded with a video camera	40min
09.08.2019	Lesson 2	Teaching vowels	40min
15.08.2019	Lesson 3	Teaching the syllable "ba"	40min
16.08.2019	Lesson 4	Teaching the syllable "sa"	40min

Dates	Lessons	Activites	Duration
22.08.2019	Lesson 5	Teaching the syllable "ra"	40min
23.08.2019	Lesson 6	Teaching the syllable "ma"	40min
29.08.2019	Lesson 7	Teaching the syllable "ka"	40min
05.09.2019	Lesson 8	Teaching the syllable "ça"	40min
06.09.2019	Lesson 9	Teaching the syllable "ta"	40min
12.09.2019	Lesson 10	Teaching the syllable "ma"	40min
13.09.2019	Lesson 11	Teaching the syllable "ya"	40min
19.09.2019	Lesson 12	Teaching the syllable "ha"	40min
20.09.2019	Lesson 13	Teaching the syllable "pa"	40min
26.09.2019	Lesson 14	Teaching the syllable "sa"	40min
27.09.2019	Lesson 15	Worksheet activity is done. (Puzzle-matching exercises are carried out with picture cards.)	40min
03.10.2019	Lesson 16	Teaching the syllalbe "za"	40min
04.10.2019	Lesson 17	Teaching the syllable "la"	40min
10.10.2019	Lesson 18	Teaching the syllable "va" ve "dı"	40min
11.10.2019	Lesson 19	Teaching the syllable "ca" ve "fa"	40min
17.10.2019	Lesson 20	Teaching the syllable "ga", "ja" ve "ǧa"	40min
18.10.2019	Lesson 21	OVERVIEW (BOOK 1 IS OVER.)	40min
24.10.2019	Lesson 22	Teaching "m" and "s" sounds	40min
25.10.2019	Lesson 23	Teaching "r" and "k" sounds	40min
31.10.2019	Lesson 24	Teaching "m" and "s" sonuds	40min
01.11.2019	Lesson 25	Teaching "r" and "k" sonuds	40min
07.11.2019	Lesson 26	Teaching "m" and "s" sounds	40min
08.11.2019	Lesson 27	Teaching "r" and "k" sounds	40min
14.11.2019	Lesson 28	Teaching "ç" and "t" sounds	40min
15.11.2019	Lesson 29	Teaching "y" sound	40min
21.11.2019	Lesson 30	BOOK 2 IS OVER. Teaching "d" sound	40min
22.11.2019	Lesson 31	Teaching "l" sound	40min
28.11.2019	Lesson 32	Teaching "n" sound	40min
29.11.2019	Lesson 33	Teaching "ş" sound	40min
05.12.2019	Lesson 34	Teaching "h" sound	40min
06.12.2019	Lesson 35	Teaching "b" sound	40min
12.12.2019	Lesson 36	Teaching "z" sound	40min
13.12.2019	Lesson 37	Teaching "g" sound	40min
19.12.2019	Lesson 38	Teaching "v" sound	40min
20.12.2019	Lesson 39	Teaching "p" sound	40min
26.12.2019	Lesson 40	Teaching "c" sound	40min
27.12.2019	Lesson 41	Teaching "f" sound	40min
02.01.2020	Lesson 42	Teaching "j" and "ğ" sounds	40min
03.01.2020	Lesson 43	LAST LESSON EVALUATION	40min

# PART 1

In this lesson, Cem was given four reading texts respectively and pre-test data were taken. While this pre-test data was being collected, Cem had the reading texts at his grade level read aloud and recorded with a voice recorder and camera. During this reading, the researcher noted the number of words the student read in a minute and the words he misread. Although Cem, who was previously aware of the research, was excited when his teacher was going to record it, he later overcame his excitement with the encouragement and explanation of the researcher and got used to video and audio recordings. After his first reading, Cem asked his teacher: "Teacher, how was I? Do you think my reading will improve?". Upon the question, the researcher motivated Cem by telling him that the purpose of the research was to improve his reading skills and that he wholeheartedly believed that his reading would improve by working hard together. The researcher recorded the student's readings without making any corrections during reading. Then, a sheet of paper with all the letters was shown to Cem and it was checked whether the student knew the letters. Cem, who saw the cards, expressed his thoughts as follows:

Cem: Oh teacher, I know these. I was afraid that you would ask me things I didn't know.

The researcher told Cem that there was nothing to be afraid of and that it was important for him to say the letters he knew and laid the cards in front of him. The researcher noticed that Cem knew all the letters, but confused the letters b-d and m-n. These letters will be emphasized during the application process and the letters will be distinguished.

Pre-test data of the student who knew all the letters but could not combine syllables correctly while reading and read very incorrectly were taken by the researcher in this lesson and the individualized education program was implemented.

# PART 2

In this study, the aim was to teach Cem the vowels "a-e-i-o-u-i-ö-ü", respectively. In teaching letters, vowels were emphasized by making vocalizations and giving various examples: For example, in teaching the letter "a", a card with a picture of a bee (it's "arı" in Turkish) was shown, the sound "a" was emphasized and the aim was to make the sound felt.

Then, colored cards with letters written on them were mixed and the student was asked to choose them at random, and the student was asked to identify the letter on the selected card. The letters that are emphasized and distinguished are supported by repetitive writing exercises and the learning of vowels is completed..

A-a-arı (bee) İ-i-inek (cow)
E-e-eşek (donkey) Ü-ü-üzüm (grape)
O-o-olta (fishhook) Ö-ö-örümcek (spider)

U-u-uçak (plane) I-1-1şık (light)

#### PART 3

Teaching "ba" sound

After learning the vowels is completed, the aim of this lesson is to teach the syllable "ba" to Cem. Cem was given a worksheet containing pictures of balloons (balon in Turkish) and asked to write the syllable "ba" under the images. Then, the words "baba-oba-aba" (father, tent, gaberdine in English) were first read and then these words were written five times. After completing the writing exercise, the following "ba" syllable reading page was given and the reading was made.

aba oba aba oba aba baba a a a a a baba baba e e e e e baba baba i i i i i i i baba baba o o o o o baba baba u u u u u baba baba 1111111 baba baba ö ö ö ö ö baba baba ü ü ü ü ü baba

Finally, Cem, who completed his reading, was asked to write the words "aba"- "oba"- "o aba"- "aba oba aba oba aba"- "baba a a a a dad"- "baba e e e e e dad". Since Cem confused the letter "b" with the letter "d" while reading, the researcher made frequent corrections to ensure that he read accurately.

# **Findings Regarding the Third Sub-Problem**

What is the current reading level (by taking into account reading speed, accurate reading, prosody) of a third-grade primary school student with specific learning difficulties after the syllable method-based individualized education program?

			•	
Reading Texts	Reading Speed	Reading Accuracy (%)	Prosody	Percentage of Prosody (%)
Text 1	54=57-3	% 94,7	10	% 62,5
Text 2	52=57-5	% 91,2	11	% 68,75
Text 3	50=54-4	% 92,6	9	% 56,25
Text 4	55=58-3	% 94,8	10	% 62,5
Average	52,75	% 93,33	10	% 62,5

Table 6: Lat measurements of reading level

- 1. Reading speed (number of words read correctly in one minute) = total number of words read number of words read incorrectly
- 2. Correct reading % = number of words read correctly in one minute / total number of words read x 100
- 3. Prosody score = expression and sound level score + meaning units and intonation score + smoothness score + speed score
- 4. Prosody score percentage = expression and voice level score + meaning units and intonation score + smoothness score + speed score/16 x 100

The findings and comments regarding this sub-problem have been explained by showing the post-test results of the student's reading speed, reading accuracy and prosody scores in Table 6.

When the data regarding the reading passages are analyzed in detail;

- The average reading speed of the student is 52.75 words,
- The average of the student's correct reading percentage is 93.33%,
- The student's reading prosody score is 10
- The average reading prosody percentage of the student is 62.5%.

#### Findings Regarding the Fourth Sub-Problem

How does the reading performance of a third-grade primary school student with specific learning difficulties improve after the individualized education program based on the syllable method?

Findings and comments regarding this sub-problem have been interpreted by comparing the pre- and post-test results of the student's reading speed, reading accuracy and prosody scores. The analysis results are explained in Table 7.

As seen in Table 7, the individualized education plan based on the syllable method applied for 22 weeks provides a visible increase in the student's fluent reading skills, namely reading accuracy, reading speed and reading prosody, compared to the pre-test and post-test data. Reading skills are reflected in the results according to pre-test and post-test data as follows:

- Accuracy score increases from 64.63% to 93.33% on average. The accuracy average increases from the reading level of concern to the level of reading that can be improved.
- Reading speed increases from 16 words to 52.75 words on average. With these results, the word range of its own grade level (50-140) is achieved.
- When the pre-test and post-test results of prosody, which are one of the student's fluent reading skills, are compared, the scores the student receives from the

- reading prosody phased scoring key increase from 4 points to 10 points.
- Finally, it is determined that the student's reading prosody developes positively, with the student's reading prosody percentage increasing from 25% to 62.5%.

# **DISCUSSION**

When we look at the results of the student in the field of reading speed in this research, it is observed that the student's pre-test results are below the averages in the studies conducted in Türkiye. According to the reading accuracy results, it is found that the average of the student's correct reading percentage is 64.63%, and according to the reading speed results, the average of the student's reading speed is 16 words. According to the reading prosody results, the average of the student's reading prosody score is 4, while the average of the reading prosody percentage is 25%. The results of the research obtained after the application are that the average of the student's correct reading percentage is 93.33%, the average of the reading speed is 52.75 words, the average of the reading prosody score is 10 and the average of the reading prosody percentage is 62.5%. This research reveals that, in developing the reading skills of a third-grade primary school student with specific learning disabilities, working with the student by preparing an individualized education program based on the syllabary method creates a visible improvement in the student's reading skills (taking into account reading speed, accurate reading, prosody). Akyol and Temur (2006) find in their study that the reading speed of third grade primary school students is 74.13 in informative texts; They calculate it as 77.2 in narrative texts. According to the pre-test and post-test results obtained from this research, the student's pre-test results reveal a deficiency in reading speed. In their study, Ateş and Yıldız (2011) reveal that the average reading speed of third grade primary school students who learn to read with different methods is 79.36 in the sound-based reading method and 75.38 in the sentence-

Table 7: Compar	rison of nre-no	st measurements	regarding	reading l	evel

Texts	Reading Speed		Reading Acc	Reading Accuracy %		Prosody		Percentage of Prosody %	
	Pre-test	Post-test	Pre- test	Post-test	Pre-test	Post-test	Pre-test	Post-test	
Text 1	16	54	% 64	% 94,7	4	10	% 25	% 62,5	
Text 2	15	52	% 62,5	% 91,2	4	11	% 25	% 68,75	
Text 3	16	50	% 66,7	% 92,6	4	9	% 25	% 56,25	
Text 4	17	55	% 65,3	% 94,8	4	10	% 25	% 62,5	
Average	16	52,75	% 64,63	% 93,33	4	10	% 25	% 62,5	

- 1. Reading speed (number of words read correctly in one minute) = total number of words read number of words read incorrectly
- 2. Correct reading % = number of words read correctly in one minute / total number of words read x 100
- 3. Prosody score = expression and sound level score + meaning units and intonation score + smoothness score + speed score
- 4. Prosody score percentage = expression and voice level score + meaning units and intonation score + smoothness score + speed score/16 x 100

based reading method. According to the results of this research, it is observed that the student's reading speed in the preliminary measurements is below the average. In addition, it is observed that there is no syllabary method-based education in schools and individuals with specific learning disabilities continue their education without this method.

Another result of the research is that positive improvements have been observed in the reading performance of the student by making him read frequently and repeatedly with worksheets prepared based on the syllabary method. It can be said that the activities and teacher-student interactions used in the application process of this method are shown in the results. Adler (1995) says that it is not possible to talk about any method as the most effective method in education. Education is a system that requires continuous change. Even if the method or technique is the best, and if it is used constantly, uniformity will begin in education and this will negatively affect the quality of teaching. In this research, a syllable method-based education program has been prepared and implemented for the student, in addition to the reading methods taught at school. Begeny and Silber (2006) emphasize that special methods and techniques should be used to improve the reading skills of students who have deficiencies in reading skills. It is very difficult for students who are behind the grade level in reading skills to reach the same level as their peers unless they receive support through special methods. A special training program has been prepared and implemented by the researcher for Cem, the participant of the research. Following the individualized education program based on the syllabary method, positive results appear in the student's reading speed, which are similar to other studies. Additionally, when the literature is reviewed, there are very few studies on syllabary method-based reading teaching. While the literature review has shown that fluent reading skills of individuals with normal/typical development can be improved with various methods and techniques, it is found that the syllabary method has never been used in improving the reading skills of a student with specific learning disabilities. Based on this situation, an assumption can be made that this method is not used by educators because it requires repeated studies and covers a long process (Demir, 2015).

Another of the results of this research is that the student's reading performance can be improved by determining the student's current reading level and providing an individualized education program suitable for his/her performance. In Ateş's (2013) study, it is found that repetition and preparing a student-specific method and program have a positive effect on reading skills of students who have reading problems. The study conducted by Akar (2017) shows the development of reading skills by preparing and implementing an individualized education program for students with reading difficulties, which supports this research. As in the study conducted by Seçkin

(2012), it is concluded that individuals who have difficulty in reading are academically unsuccessful compared to individuals who do not have difficulty in reading. Reading skill, which is one of the cornerstones of education, is a skill that every student should have. Individuals who lack this skill may face failure in all academic fields. Based on this, the positive development of these skills of the student, who is a participant in the research, has the power to positively affect the student's skills in other academic areas. Can and Yavuz (2017) state that the biggest factor in detecting a student with reading problems is that they are behind their peers in reading and writing processes, they become confused with sounds and words, and they have speed problems. In this study, according to the information received from the family about the participant, it is observed that early recognition, the influence of the family and the preschool teacher are of utmost importance. According to Razon (1980), it is quite normal for a child with dyslexia to make mistakes while reading, skip letters, or skip lines while reading. During the application process of the research, the student shows similar behaviors to these and the researcher continues the education process considering that these behaviors are normal. As stated by Hogan and Thomson (2010), individuals with reading difficulties do not only have academic difficulties, but also does it affect the individual's social life and adulthood, it is concluded that developing the student's reading skills with special methods can have positive results in the individual's future life. Hutchinson, Whiteley, Smith, and Connors (2004) support in their studies that detecting the existence of individuals' dyslexia problems at an early stage can facilitate the individual's educational life.

In conclusion, it is revealed that the individualized education program based on the syllable method is an effective way to improve the student's f luent reading skills such as reading speed, accurate reading and prosody. The syllabary method, an alternative reading teaching method, can also be used to eliminate the deficiencies in the reading skills of primary school students with specific learning disabilities. Explaining the entire functioning of the individualized education program in detail is hoped to contribute to the literature in terms of serving as a guide for educators and families.

#### SUGGESTION

Based on the research findings and results, the following suggestions can be made to teachers and researchers: In order to collect better data at the end of the research, an individualized education program based on the syllabary method can be applied with more than one participant instead of a single participant, so that its effect on more than one student can be examined. Participant characteristics of the study can be changed. In addition to students with specific

learning disabilities, this study can also be applied to students with hearing problems, students with articulation disorders, or students with autism spectrum disorder, and the effect of the syllable method on reading skills can be examined. In this study, the student's reading skills have been studied. Other researchers can also conduct studies by adding the student's reading comprehension skills to their variables.

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#### **APPENDIX**

Appendices should be added following the References section. Typesetting will be applied following acceptance.