The Effect of Keyword Games on Reading Comprehension and Fluent Reading Skills of Primary School 4th Grade Students [*]

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Abstract

The objective of this study is to establish whether the Keyword Games (KWG) created by the researcher using the keywords in the texts affect the students' reading comprehension and fluent reading skills. In the research, in which the experimental method, one of the quantitative research methods, was utilized; a quasi-experimental design with pre-test post-test control group has been used. The study group of the research, which has been conducted in one of the central districts of Van province in the fall semester of the 2021-2022 academic year, consists of 50 students attending 4th grade in two different primary schools in the same district. In order to obtain the research data, 'Running Records', 'Reading Comprehension Questionnaire' and 'Multidimensional Fluency Scale' have been utilized. As a result of the research, a significant difference has been obtained in favor of the experimental group in terms of students' reading comprehension levels. In the sense of fluent reading skills, a significant difference was obtained in favor of the experimental group in terms of correct reading and prosodic reading levels, no significant difference was obtained in terms of reading speeds as well. It was concluded that the students in the experimental group, who were taught vocabulary using Keyword Games (KWG), had higher reading comprehension and fluent reading levels than the students in the control group, who were taught vocabulary in accordance with the current Turkish lesson curriculum (2019).

Introduction

Vocabulary is tried to be explained with the notions of word recognition and word discrimination, which are sub-titles. Despite word recognition is expressed as the perfect pronunciation of words, word discrimination is defined as knowing the meaning of the word as well as correct pronounciation of the word, as a concept that includes word recognition (Akyol, 2005). One of the effective ways in order for improving students' vocabulary, word recognition and word discrimination skills is games. Along with ensuring the active participation of students in the lesson process, the game also affects their cognitive, affective, social, kinetic and language skills. It aids students to undertake

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and adopt roles in social life through their interactions with each other, to think differently about a situation or subject and to develop their vocabulary and expression skills by means of in-game communication. Research results indicating that the game has an effect and significant contribution to the physical development (Akandere, 2006; Aytekin, 2001; Hazar, 2006), psychological and emotional development (Altunay, 2004; Yavuzer, 2007), social and social development (Dağbaşı, 2007; Karadağ & Çalışkan, 2005), development of psychomotor skills (Çoban & Nacar, 2008), cognitive development (Altunay, 2004; Hazar, 2006) and language skills (Dağbaşı, 2007; Karadağ & Çalışkan, 2005; Pehlivan, 2005) of children, draws attention to the fact that games are an issue that should not be neglected in the education-teaching process.

The game is actually considered as a learning tool and since children come from the game world and start school, no way, method or tool used in the education and training process can be as effective as the game with regards to making students interested and eager in the process (Özaslan, 2006). For the word games motivate students to learn vocabulary, word games created by the teacher to improve students' vocabulary might be quite efficient as they will meet the needs of the students or the problem aforementioned (Blachowicz & Fisher, 2015). Word games, which will be used particularly within the context of Turkish Teaching course, will help students enhance their vocabulary and treasure by providing an environment in which the education-teaching process is away from a process full of undesired activities and in which students will participate with pleasure. Through the games created for vocabulary teaching, students will have the opportunity to think about relevant words, associate the words they are learning with the words they already have and probe the words.

In the course teaching process, besides the fact that the games motivate the students and enable them to participate in the lesson and develop their important skills such as affective, social and kinetic, using them in the vocabulary teaching process will enhance the students' vocabulary, word recognition and word discrimination skills; hence, it is believed that the student will read more fluently and understand what s/he reads better. Reading comprehension, which is one of the notions highlighted in this research, is the main principle and also the main goal of reading. In Demirel and Şahinel (2006)'s opinion, the concepts of reading and comprehension, which are discussed as two separate concepts, are essentially the concepts that are the continuation and complement of each other. Likewise the first thing that an individual desires as a result of reading is to want to understand what s/he reads. Thus the first aim of reading is to understand.

In general terms, reading comprehension is defined as the mental processes of the information acquired through reading and the structuring of the meanings in the mind by bringing together the information that is already available to the individual (Güneş, 2009). In their study, Akyol and Yıldız (2013), stated that reading comprehension depends on a number of mental and linguistic processes and that it is a concept that expresses the understanding of words, sentences and texts as a whole. Furthermore, they suggested that the fact that most of the activities and materials utilized in the course teaching process in schools are language-based resources further increases the importance and necessity of reading comprehension skills. Ulusoy (2016), on the other hand, emphasizes that the essential condition for a good and effective reading is to analyze the written and visual characters in the text, to recognize words, to distinguish their meanings, to interpret and to construct meaning and in other words, to interact with the text.

The reading skill acquired throughout primary school and especially the ability to understand what s/he reads, may affect all future learning of the student. The academic success and learning of students with good reading comprehension skills are more positively affected, the school life, learning processes and academic success of students who do not have this skill are more negatively affected as well. Studies supporting this idea and concluding that reading comprehension skills affect academic achievement (Baykul & Fidan, 1994; Bloom, 1995; Yılmaz, 2004) show how substantial it is for an individual to have a sufficient level of vocabulary, to recognize the words in the text s/he reads and to be able to understand the text aforementioned.

In general terms, fluent reading, which is another of the concepts emphasized within the scope of the research, the reader's text is explained correctly, with the appropriate speed and expression, as well as being read with attention to comprehension (Hudson, Lane, & Pullen, 2005; Rasinski, Samuels, Hiebert, Pestcher, & Feller, 2011). Due to the concept of fluent reading and the concept of reading comprehension are interconnected and have a strong relationship between them, the concept of fluent reading in the process of monitoring the reading success of the student is also a concept that is underlined and given importance from the first moment the student begins school.

Reading a text correctly, with an appropriate speed and expression is vital for success in reading comprehension (National Institute of Child Health and Human Development [NICHHD], 2000). Researchers who consider fluent reading as an indispensable criterion of the reading comprehension process, discussed the elements of fluent reading in three sub-headings: accuracy in word recognition, reading speed and prosody (Rasinski, 2004; Samuels, 2006). With respect to these researchers, in order for a fluent reading to occur, the individual should read the text at a proper speed and without making too many reading errors such as spelling, misreading, incomplete reading, repetition and skipping, as well as reading the text by paying attention to the proper emphasis and intonation. In order to achieve the desired level of reading comprehension, the relevant text must be read fluently. Being able to read the text fluently is associated with the recognition of the words in the text by the reader. Because the individual who has difficulty in recognizing the word will pay attention to decoding the word. The purpose of the individual in this situation will be to be able to pronounce the word rather than to understand it. Hence, understanding will be mostly neglected. As the individual who recognizes the word in the text will read the word with an appropriate speed and expression and the sentence with the appropriate emphasis and intonation, s/he will not waste time with pronounciation and will regard the understanding more. Therefore, the development of the student's vocabulary at school will enable the student to recognize and discriminate the words in the text to be read and thus to read and understand the text fluently.

Baştuğ, Hiğde, Çam, Örs, and Efe (2021) suggested that correct reading, reading speed and prosody must be exhibited simultaneously during reading aloud in order for fluent reading to become competent and the lack of any of these skills will lead a deficiency in fluent reading. Besides, they also stated that for the development of prosodic reading, the student should not have problems with word recognition and reading speed and that prosodic features such as emphasis, intonation and pause appropriate to the meaning of the text should be exhibited during outloud reading (Baştuğ et al., 2021). Additionally, Rasinski (2004) expressed that prosody is an indicator of whether the student understands what s/he reads. When the reader reads at an appropriate speed, without errors, paying attention to comprehension and intonation, it can be concluded that s/he probably understands the text. Based on these expressions, it is possible to say that the realization of reading comprehension depends on the fluent reading of the text and the realization of a fluent reading depends on the recognition of the words of the text and thus the adequate level of vocabulary. This situation shows the importance of vocabulary teaching and that vocabulary teaching is an issue that should not be neglected in the development of reading skills.

Regarding the literature on the research subject, it is seen that the studies conducted in our country are mostly studies on secondary school and high school students and the concept of educational games is preferred rather than the concept of word games in these studies. In the aforementioned studies, the effects of educational games used in the course teaching process on students' vocabulary, high-level thinking skills, attitudes towards the course, academic achievement, reading comprehension and fluent reading skills were examined and seen that it also provides positive consequences such as being willing, increasing communication and socialization, making teaching permanent and eliminating undesired behaviors (Aşuluk, 2020; Belet & Yaşar, 2007; Boz, 2018; Demirel & Yağmur, 2017; Duran & Tufan, 2017; Kara, 2010; Özaslan, 2006; Savaş & Gülüm, 2014; Tuncer, 2010; Varan, 2017).

It is observed that the studies performed abroad are similar to the studies in Turkey in terms of the subject, yet the concept of word games is not used, the concepts of intelligence games and educational games are used instead of this concept and the studies are carried out with primary school classes rather than secondary and high school classes. In the studies aforementioned, it is seen that the effect of the lesson process, which is taught by using intelligence games or educational games, on the academic achievement, high-level thinking skills and vocabulary of the students is investigated. Nevertheless, it is shown that there are more studies examining the long-term effects of educational games on relevant variables (Alemi, 2010; Bottino & Ott, 2006; Huyen & Nga, 2003; Ott & Pozzi, 2012; Randel, Morris, Wetzel, & Whitchil, 1992).

In general, it is observed that the majority of studies on the effect of word games on high-level thinking and academic achievement. It is possible to say that there are studies on teaching vocabulary through word games in the literature, however they are insufficient and almost all of the existing studies are in the context of foreign language teaching (English, German). (Atay, 2007; Bülbül, 2019; Edwards, 2018; Işık, 2016; Kalaycıoğlu, 2011; Kaya, 2016). Moreover, it can be mentioned that there are studies examining the effects of students' reading comprehension and fluent reading skills as a result of learning the words taught through word games, still, there are almost no studies using keywords that are critical for reading and understanding the text. Therefore, it is believed that the research may contribute to the elimination of this deficiency in the literature.

Turkish teaching, which has been carried out in a certain pattern for many years and vocabulary teaching, which is a part of it, has undergone a radical change with the program change in 2005. In the Primary Schools Turkish Curriculum prior to 2005, vocabulary teaching was included after the text. Text processing process in general terms; 'read the text silently, identify the words you do not know the meaning of, find the meaning of the words in the dictionary and use the word in a sentence and write it in your notebook' (Ministry of National Education [MoNE], 2005), with the program change in 2005, vocabulary teaching within the scope of Turkish lesson, activities before reading the text, is carried out in three stages as activities during text reading and activities after the text reading process (MoNE, 2005). However, even though this process has become systematic, it is seen that the number of keywords focused on pre-text meaning is quite few (5-6 words). Vocabulary teaching process, which can be called traditionally, "to guess the words they don't know the meaning of, to find them from the dictionary, to compare the estimation and dictionary information and to use the related word in a sentence" continues to be used by most educators. Nonetheless, this activity is inadequate in vocabulary teaching. Since students cannot focus enough on the learning process as they are constantly trying to learn the word with the same activity or as the learning process is not effective, they are not able to transfer the word to their daily life and forget it after a short time.

Paying more attention to pre-reading activities related to a greater number of critically important words, as well as teaching vocabulary by using word games instead of direct vocabulary teaching in pre-text studies can enable much more keywords to be recognized, distinguished and internalized. Nevertheless, students who know the critical words of the text they will read through word games and have a good understanding of their meanings can increase their fluent reading and reading comprehension skills as they will give more importance to meaning rather than pronounciation the words in the text reading process. As a matter of fact, Varan (2017), Özaslan (2006) and Atay (2007) concluded that the vocabulary teaching process through the word games they carried out with primary school students made the students know the words better and have a grasp of their meanings and for they knew the words of the text they read, they read the text more fluently and their reading comprehension skills increased.

Regarding to 2018 PISA reading data, it is noted that Turkey's reading skill score is below the average score of OECD (Organization for Economic Cooperation and Development) countries (MoNE, 2019b) and in general, the results for Turkey are not at the desired level. In 2018 PISA Turkey Preliminary Report (MoNE, 2019b), it is assumed that one of the reasons why the results obtained in the field of reading skills are not at the desired level, are that students' reading habits are not at a sufficient

level and therefore their fluent reading and reading comprehension skills are not at an adequate level. In addition to PISA, the outcomes of the PIRLS exam, which is the other international exam and the ABIDE (Monitoring and Evaluation of Academic Skills) exam , which was held in our country in 2019 and defined as "Domestic PISA", it is seen that the results of reading skills are not at the expected and desired level for Turkey. Among the reasons why our country has achieved unsuccessful results from these practices are the poor reading skills and comprehension levels of the students, low reading habits and weak attitudes towards reading (IEA, 2003; MoNE, 2019a). All these results indicate that students' vocabulary and word recognition skills are insufficient due to the lack of reading habits in our country and thus there are problems in student skills with regards to the reading comprehension and fluent reading skills.

In this study, our objective is to make students think about the words that contain critical keywords for the purpose of understanding the text to be read and are determined by using various word games developed by the researcher, to enhance their awareness, to strengthen their pre-knowledge, as well as to improve students' fluent reading and reading comprehension skills by improving their vocabulary. Therefore, the aim of this research is to establish the effect of keyword games on students' reading comprehension and fluent reading skills. In line with the general objective of the research, responds to the following questions have been searched:

1. *Is* there a statistically significant difference between the reading comprehension and *fluent reading post-test scores of the experimental group students* and the *control group students*?

2. As a result of the KWG practices, *was there* a significant difference in the reading comprehension and fluent reading skills of the experimental group students?

3. *Is there* a statistically significant difference between the reading comprehension and fluent reading *pre-test* scores and the *post-test* scores of the control group students?

Method

Research Design

In this study, the effect of Keyword Games (KWG) on students' reading comprehension and fluent reading skills has been investigated. In the research, quantitative research method and quasi-experimental pattern with pre-test post-test control group, which is one of the experimental research types, have been utilized. The principal purpose of experimental research is to test the cause-effect relationship between dependent and independent variables (Büyüköztürk, Çakmak, Akgün, Karadeniz, & Demirel, 2019). The experimental process of the research is given in Table 1.

Table 1. Keyword Games (KWG) Experimental Process

Group/Test		Initial	Process	Final
E	R	0_1	KWG (6 weeks)	0_3
C	R	0_2	MoNE Curriculum	0_4

Study Group

The study group of the research, which was carried out in one of the central districts of Van province in the fall semester of the 2021-2022 academic year, consists of 50 students attending 4th grade in two different primary schools in the same district. In the light of the previous semester's report card grades, general course average scores and teacher opinions of all students in the 4th grade branches in both schools, the two closest branches were selected. In line with the normal distribution of the results obtained by determining the reading levels of all students in both groups, 25 students from each of the experimental and control groups were determined and the research was carried out with a total of 50 students. The aim of selecting the experimental and control groups from different schools is to minimize the possibility of sharing the information of the studies and activities carried out with the experimental group students with the control group students.

Considering the physical and socioeconomic potential of the schools, the schools were selected from the TOKI region of Edremit district of Van province for the research. Hence, typical sampling, one of the purposive sampling methods, has been utilized in the selection of schools. Since the number of the class assigned as the experimental group by random selection method was 25 and the number of the class assigned as the control group was 30, the data of 25 control group students whose measurements were obtained in accordance with the experimental group pre-test data were taken into consideration. Therefore, criterion sampling, one of the purposive sampling methods, has been used in the selection of students.

The table showing the gender distribution of the students participating in the study is as follows:

Table 2. Gender Distribution of Study Group Students

Group	Gender	f	%	Total
E	F	11	44	25
	M	14	56	
C	F	11	44	25
	M	14	56	
Total	F	22	44	50
	M	28	56	

According to Table 2, each of the research groups consists of 25 students, 11 female (44%) and 14 male (56%) students. 50 students participated in the research, including 25 students in each group.

Data Collection Tools
Running Records and Question Scale
'Running Records' and 'Reading Comprehension Question Scale' adapted by Akyol (2006) were used to establish students' reading comprehension levels as well as reading comprehension percentages, reading errors, correct reading percentages, reading speeds and reading levels.

Open-ended questions, both in-text and out-of-text, were utilized to determine the reading comprehension levels of the groups. 5 in-text and 3 extra-textual questions were prepared by the researcher related to two informative texts selected in line with the expert opinions from the MoNE 4th Grade Turkish Textbook and presented to the expert opinion. In accordance with the expert opinion obtained from 10 doctoral faculty members, doctoral students and classroom teachers who work in the field of reading, 3 in-text and 2 non-text questions were determined for both texts.

According to the Running Records question scale, 2 points are given for the answers to the simple (in-text) comprehension questions, 1 point is given to the answers that can be accepted as half of the correct and complete answers that are not given completely and 0 points are given to those that are left blank and cannot be answered. For the answers to the extra-textual comprehension problems; 3 points are given to the effective and complete answers, 2 points to the expected close but slightly incomplete answers, 1 point to the answers that can be accepted as half of the complete and correct answer and 0 points if no answer has been given. On the basis of this scoring, the highest score that can be obtained from the reading comprehension question scale is 6 points for each of the 3 simple comprehension questions and 6 points for each of the 2 in-depth comprehension questions. The lowest score that can be obtained is 0. Within the context of the research, the averages of the scores obtained by the experimental and control group students from the questions based on 3 simple comprehension and 2 deep comprehension from two separate texts were evaluated as the reading comprehension scores of the students.

Reading comprehension percentages of the experimental and control group students were obtained by using the students' reading comprehension questionnaire. According to Akyol (2005), the student's reading comprehension percentage is obtained by dividing the score obtained from the reading comprehension question scale by the total score that can be obtained and multiplying the result obtained by 100. In the study, the reading comprehension percentages of the groups were determined along with the reading comprehension scores measured in the pre-test and post-test.

In the determination of fluent reading, which is another dependent variable of the study, partially running records has been utilized. In the study, in which each of the correct reading, speed and prosody were handled separately, the prosodic reading skills of the students were obtained with the Multidimensional Fluency Scale, which is explained in detail below, while the inventory was used to determine the proper reading and reading speed scores of the students. In the study, in the process of measuring the fluent reading skills of the experimental and control group students, 2 texts *(One Cup of Coffee, Let's Keep Handicrafts Alive)* determined as a result of expert opinions were read by the students at one hour intervals. During the readings, the researcher recorded the readings with a voice recorder, taking into account the same text form prepared for each student at the same time and recorded the reading errors of the students during reading and the necessary notes on the form. The student readings recorded through the recording device were repeatedly listened to by the researcher at a separate and appropriate time and the necessary checks were made on the form of the relevant student and the overlooked details, if any, were noted on the form. In this regard, it was aimed to achieve healthier results and it became possible to recheck the details missed during the first reading process and the reading errors of the students.

The first of the important stages in determining the correct reading, correct reading percentage and reading speed scores in the process of measuring fluent reading skills is the determination of reading mistakes and the number of mistakes. As a matter of fact, the number of mistakes made during reading affects the correct reading score of the student, the correct reading percentage and the number of words read per minute. In the pilot application of the study carried out with students with the same socioeconomic level and at the same grade level as the experimental and control group students, it was noted that the students made mistakes such as jumping, adding, re-reading, incorrect reading, incomplete reading and spelling from reading errors. Also, as it was detected that the same reading errors were made during the measurement of the reading skills of the experimental and control group students at the beginning of the experimental process, skipping, adding, re-reading, incorrect reading, incomplete reading and spelling criteria were determined as reading errors within the scope of the research.

The following practices are used to measure the correct reading percentage (word recognition percentage) and reading speed (Akyol, 2016; Rasinski, 2004):

- In the first stage, the total number of words that the student has read for a minute is determined.

- In the reading process within a minute, the number of incorrectly read words and the number of mistakes are established.

- The number of words read without error in a minute is determined by subtracting the incorrectly read words from the total words read. This value is accepted as the student's reading speed.

- The outcome obtained by dividing the number of words read correctly by the total number of words read in a minute by the value multiplied by 100 gives the correct reading percentage of the student.

- The correct reading percentage is used to determine the student's reading level. According to this classification, a reader with a correct reading percentage in the range of 99-100% is considered to be a free reader, that is, a good reader; a reader with a correct reading percentage in the range of 95-98% is considered to be a developable reader at the educational level, that is, under the guidance of a teacher or a good reader; and a reader with a correct reading percentage below 90% is considered to be a reader at the level of Concern in terms of word recognition.

As data were obtained from two different texts selected from the 4th grade Turkish textbook of the Ministry of National Education and the difficulty levels were close, the arithmetic mean of the data obtained from both texts constituted the pre-test and post-test scores of the students' reading comprehension, reading comprehension percentages, correct reading, reading speed, correct reading percentage and prosodic reading scores. In the research, primarily, it was determined in how many minutes the students read the entire text by enabling them to read the relevant texts. Reading errors made in the reading process were determined and the number of errors was subtracted from the total number of words read. In this regard, the number of correctly read words was established within the determined time. In the light of this data, the correct number of words that the student read in one minute (60 seconds) has been determined. This value formed the reading speed scores of the students.

The correct reading percentages of the students were acquired by multiplying the value obtained by dividing the number of correct words read by the total number of words read in a minute by 100. Based on the correct reading percentages and reading comprehension percentages of the students, their reading levels (Free, Instructional, Concern) were also determined following the pre-test and post-test measurements. While determining the reading levels of the students, the following table of reading levels and percentages of Ekwall and Shanker (1998, as cited in Akyol, 2016) was used:

Table 3. Reading Levels and Percentages

Reading levels	Word Recognition	Understanding
Free	99% +	90% +
Instructional	95% +	75% +
Concern	90% -	50% -

Table 3 shows three levels of reading in its most general sense. Accordingly, readers with a word recognition level of at least 99% and a comprehension level of 90% and above are free readers. Readers with a vocabulary recognition level between 95-98% and a comprehension level between 50-89% are the readers at the education level. Readers with a vocabulary recognition level of 90% and below and readers with a comprehension level of 50% and below, are those with a level of concern (Akyol, 2016).

Multidimensional Fluency Scale

In order to determine prosodic reading levels, which is another important element of fluent reading, the 'Multidimensional Fluency Scale' developed by Rasinski (2004) and adapted to Turkish by Yıldız, Yıldırım, Ateş, and Çetinkaya (2009), which consists of four relevant basic dimensions such as (a) expression and sound level, (b) meaning units and intonation, (c) smoothness and (d) speed, was utilized. In the scoring made by taking into account the relevant dimensions in the scale, a score in the range of 1 to 4 can be obtained in each dimension. Therefore, the lowest score that can be obtained from the scale is 4 and the highest score is 16. The fact that the reader scores below 8 points generally indicates that prosodic reading skills are weak, the fact that the reader scores above 8 points indicates that prosodic reading skills are developing as well.

Data Collection

1. The general success levels of the two primary schools selected from a central district of Van province were selected as two 4th grade sections close to each other. The selected 50 students were interviewed and informed about what the research was, how long it would take and what would be done in the process. It was reminded that the research was voluntary and those who did not want to participate had such an option. All students in the two groups mentioned that they wanted to participate in the research voluntarily.

2. Reading comprehension and fluent reading skills of all students who continued their education in the 4th grade sections selected and randomly assigned as the experimental and control group were determined through the 'Running Records' and 'Multidimensional Reading Scale'. These measurements also formed the pre-test scores of the students in both groups.

3. Two informative texts named *a Cup of Coffee* and *Let's Keep Handicrafts Alive* were selected from the 4th grade Turkish textbook of the MoNE in line with expert opinions. The reason why both selected texts are informative texts is that there are many words used in daily life in the narrative texts in the 4th grade Turkish textbook of the MoNE and therefore the number of unknown words is few.

4. Reading errors, reading speeds, correct reading percentages, reading comprehension scores and reading comprehension percentages of the students were determined through the *Running Records* and question scale by reading the texts selected from the 4th grade Turkish textbook of the MoNE in line with expert opinions and understanding questions were prepared. Prosodic reading skills were determined through the *Multidimensional Fluency Scale*. The data obtained generates the reading comprehension and fluent reading skills pre-test scores of both groups of students. The same scales were reapplied to all students following the KWG practices and the effect of the experimental process on students' reading comprehension and fluent reading skills was tried to be determined. These data have been the reading comprehension and fluent reading skills post-test scores of all students.

5. In order to understand and read the texts fluently, 35 critical keywords in the texts were determined in line with expert remarks. Using the determined keywords, games were played with the experimental group students to comprehend the words, learn their meanings, reveal the students' preliminary knowledge and increase their high-level thinking skills such as thinking and decision-making. The experimental procedure lasted 6 weeks.

6. The control group students, on the other hand, were taught with the texts of *a Cup of Coffee* and *Let's Keep Handicrafts Alive* in accordance with the 4th grade Turkish curriculum and vocabulary studies were performed using current methods and activities. The teaching of 7 words (*hospitable, excuse, calligraphy, couplet, felt, pottery, figure)* in the vocabulary teaching activity given before the text in the book has been carried out using the activities in the book. No other treatment was implemented to the control group except the initial and final measurements.

7. During the first three weeks, afterwards the experimental and control groups were informed about the experimental process and pre-tests were applied, Keyword Games (KWG) were performed with the experimental group for 6 weeks in the form of 2 lesson hours per week using the keywords of the texts determined through student and expert opinions. In the last two weeks, post-tests were implemented. The experimental process and weekly procedures are summarized in the Table 4 below.

Table 4. Experimental Procedure Process

Week/Group	Procedures to be Implemented		Test / Procedure
	Experiment	**Control**	
1.	Introduction	Introduction	
	Providing information about the procedure	Providing information about the procedure	
2. and 3.	Measuring reading skills	Measuring reading skills	Pre-Test
4.	Word Hunt, Let's Match	----	KWG
5.	Anagram, Missing Words	----	
6.	Word Network, What's On My Back?	----	
7.	Together, Resfebe	----	
8.	The Word of Our Group, Fly Hunt	----	
9.	Fishing, Pathway	----	
10. and 11.	Measuring reading skills	Measuring reading skills	Post-Test

Table 4 shows during the experimental process, which lasted for 6 weeks, 2 course hours were used each week and one game was used in each course hour. At the beginning of each course, students were given detailed information about the rules of the game in question or how to play the game. If the game to be played is an individual game, activities were performed by explaining what to do in general and the time determined for the game. In the group game, the number of groups required for the game was created and activities were performed, taking into account the situations such as the equal number of students and the mixed students. Sensitivity was also shown for all students to participate in the games. At the end of the two lessons taught every week, a general evaluation was made by the class and ideas were exchanged with the students about the games played and the words that were recognized and learned to mean were repeated by the class.

Data Analysis

In the study, the Shapiro-Wilk Test was used to determine whether the data were normally distributed through SPSS, as the number of subjects was less than 30.

Independent Sample T-Test was used to determine whether there was a significant difference between the groups if the parametric conditions were met; Paired-Sample T-Test was utilized to establish whether there was a significant difference between the pre-test and post-test scores of the groups. Mann Whitney U Test was used to determine whether there was a significant difference between the groups if the parametric conditions were not met; Wilcoxon Signed Rank Test was used to determine whether there was a significant difference between the pre-test and post-test scores of the groups (Büyüköztürk, 2016).

Keyword Games (KWG)

KWG, which is the independent variable of the research, is a word game created by the researcher that activates the preliminary knowledge of the students about the relevant texts by using the keywords of the texts to be read, increases their awareness, aims to improve their vocabulary and high-level thinking skills (reasoning, problem solving, decision-making, etc.).

Among the word games in the literature, some of the games selected for KWG are aimed at gaining the ability to recognize words and some are aimed at gaining the ability to discriminate words. While games aimed at gaining vocabulary recognition skills enable students to see, recognize and be familiar with the words in question due to the game format, games aimed at gaining the ability to distinguish the words enable the meaning of the words as well as seeing and recognizing the words used in the games. While 4 of the 12 games (word hunting, missing words, word network, resfebe) selected to be used within the scope of KWG are games aimed at gaining the ability to recognize words, 8 of them (let's match, anagram, what's on my back, all together, the word of our group, fly hunting, fishing, path) are games aimed at gaining the ability to teach the meaning of the word or distinguish the word. Besides, within the context of KWG, it is aimed that students exhibit both their individual skills and performances and acquire skills and achievements such as intra-group interaction, communication, role taking and being a part of the group. Therefore, care was taken to ensure that some of the selected games were individual and some were group games.

Findings

Findings Regarding Reading Comprehension

The outcomes of the Shapiro-Wilk test and the Skewness-Kurtosis value, which were used to determine the conformity of the data obtained from the reading comprehension levels of the groups to the normal distribution, are given in Table 5:

Table 5. Reading Comprehension Levels Shapiro-Wilk Test and Skewness-Kurtosis Value Results

		Statistics	sd	Skewness	Kurtosis	p
E	Pre-Test	.937	25	.359	-.727	.129
	Post-Test	.916	25	-.739	-.438	.042
C	Pre-Test	.956	25	-.009	-.881	.345
	Post-Test	.919	25	-.601	-.437	.048

According to Table 5, the outcomes of the experimental group pre-test (.129) and the control group pre-test (.345), due to p>.05, showed that the scores are normally distributed. Other test results were examined in terms of the skewness and kurtosis values of the relevant tests due to p<.05. Since these outcomes are in the range of +1.5 to -1.5 (Tabachnick & Fidell, 2013), it can be said that these scores also show a normal distribution.

Table 6. Reading Comprehension Pre-Test and Post-Test Scores T-Test Results

Test	Group	N	$\bar{X}$	S	sd	t	p
Pre-Test	E	25	2.68	1.76	48	-0.44	.965
	C	25	2.70	1.46			
Post-Test	E	25	8.40	2.31	48	10.53	.000
	C	25	2.92	1.17			

According to Table 6, there is no significant difference between the pre-test scores of the reading comprehension levels of the groups ($t_{(48)}$ = -0.44, p > .05). This finding shows that the reading comprehension average scores of the groups (experiment, 2.68; control, 2.70) are almost the same. Therefore, it can be said that the groups are equivalent in terms of their reading comprehension levels prior to the experimental process.

When the post-test data of the groups are examined in the table, it is shown that there is a significant difference between the reading comprehension scores of the groups ($t_{(48)}$ = 10.53, p< .05). According to the findings obtained, in the post-test, it is seen that there is a difference close to 6 points between the total averages of the reading comprehension levels of the groups (experiment, 8.40; control, 2.92). Therefore, according to the post-test measurements, it is possible to suggest that there is a significant difference in favor of the experimental group in terms of the answers given by the students in both groups to the reading comprehension questions. This finding can be considered as an indicator of a positive relationship between KWG and students' reading comprehension skills.

The outcomes obtained regarding whether the groups made progress in terms of their reading comprehension levels in the pre-test and post-test are shown in Table 7:

Table 7. Reading Comprehension Pre-Test and Post-Test Score Differences T-Test Results

Group	Test	N	$\bar{X}$	S	sd	t	p
E	Pre-Test	25	2.68	1.76	24	-18.55	.000
	Post-Test	25	8.40	2.31			
C	Pre-Test	25	2.70	1.46	24	-.891	.382
	Post-Test	25	2.92	1.17			

Examining the Table 7, it is seen that there is a significant increase in the scores of the experimental group students regarding their reading comprehension skills following the KWG practice ($t_{(24)}$ = -18.55, p< .05). The mean reading comprehension score of the students before the KWG was 2.68, it is seen that the mean reading comprehension score increased by 8.40 after the KWG as well. This finding indicates that KWG contributes positively to students' reading comprehension skills.

According to the data obtained, it is seen that there is no significant increase in the scores of the control group students regarding their reading comprehension skills ($t_{(24)}$ = -.891, p> .05). The average of the students' pre-test reading comprehension scores is 2.70, it is noted that the average of the post-test reading comprehension score is 2.92 as well.

Findings Regarding the Fluent Reading

Findings Regarding the Correct Reading

The outcomes of the Shapiro-Wilk test, which was used to establish the conformity of the data obtained regarding the correct reading skills of the groups to the normal distribution, are given in Table 8:

Table 8. Correct Reading Skills Shapiro-Wilk Test Results

		Statistics	sd	p
E	Pre-Test	.883	25	.008
	Post-Test	.882	25	.008
C	Pre-Test	.943	25	.047
	Post-Test	.917	25	.043

According to the Shapiro-Wilk test results shown in Table 8, the group test results, the scores did not show a normal distribution since p<.05.

Table 9. Correct Reading Pre-Test and Post-Test Scores Mann Whitney U Test Results

Test	Group	N	Mean Rank	Rank Total	U	p
Pre-Test	E	25	22.74	568.50	-1.34	.179
	C	25	28.26	706.50		
Pre-Test	E	25	30.58	764.50	-2.48	.013
	C	25	20.42	510.50		

According to Table 9, there is no significant difference between the pre-test scores of the groups regarding their correct reading skills (U=-1.34, p> .05). Hence, it can be said that the groups are equivalent in terms of correct reading pre-test scores.

When the post-test data are examined, there is a significant difference between the correct reading post-test scores of the groups (U=-2.48, p< .05). In the light of these findings, when the correct reading final measurements of the groups are examined, it is seen that there is a significant difference in terms of the experimental group.

The outcomes of whether the groups made progress according to the pre-test and post-test scores in terms of correct reading are given in Table 10:

Table 10. Correct Reading Pre-Test and Post-Test Score Differences Wilcoxon Sequential Signs Test Results

Group		N	Mean Rank	Rank Total	Z	p
	Negative	1	2.00	2.00	-4.32	.000
E	Positive	24	13.46	323.00		
	Equal	0				
	Total	25				
	Negative	7	11.29	79.00	-.651	.515
C	Positive	12	9.25	111.00		
	Equal	6				
	Total	25				

When Table 10 is examined, it is seen that there is a significant increase in the correct reading scores of the experimental group students following the KWG practices (Z=-4.32, p< .05). This data indicates that KWG is positively effective in increasing students' correct reading skills. There was no significant increase in the correct reading scores of the control group students. (Z=-.651, p> .05).

Findings Regarding Reading Speed

The outcomes of the Shapiro-Wilk test, which was utilized to determine the conformity of the data obtained regarding the reading speeds of the groups with the normal distribution, are given in Table 11:

Table 11. Reading Speed Shapiro-Wilk Test Results

		Statistics	sd	p
E	Pre-Test	.976	25	.791
	Post-Test	.965	25	.534
C	Pre-Test	.973	25	.714
	Post-Test	.954	25	.312

Based on Table 11, all of the test results for the reading speeds of both groups, the scores were normally distributed since p<.05.

Table 12. Reading Speed Pre-Test and Post-Test Scores T-Test Results

Test	Group	N	$\overline{X}$	S	sd	t	p
Pre-Test	E	25	58.96	22.00	48	-.731	.468
	C	25	63.36	20.51			
Pre-Test	E	25	69.08	24.50	48	-.605	.548
	C	25	73.16	23.18			

According to Table 12, there is no significant difference between the pre-test scores of the groups regarding their reading speeds (t$_{(48)}$= -.731, p> .05). Therefore, it is possible to say that the groups are equivalent in terms of reading speed scores prior to the experimental procedure.

When the table is examined, it is seen that there is no significant difference between the reading speed post-test scores of the groups (t$_{(48)}$= -.605, p> .05). Therefore, it can be said that the reading speed of the groups is equivalent in terms of post-test scores.

The outcomes of the groups regarding whether there is a significant difference according to the pre-test and post-test scores in terms of reading speed skills are given in Table 13:

Table 13. Reading Speed Pre-Test and Post-Test Score Differences T-Test Results

Group		N	$\bar{X}$	S	sd	t	p
E	Pre-Test	25	58.96	22.00	24	-6.49	.000
	Post-Test	25	69.08	24.50			
C	Pre-Test	25	63.36	20.51	24	-4.42	.000
	Post-Test	25	73.16	23.18			

Examining the Table 13, it is seen that there is a significant increase in the scores of the experimental group students regarding their reading speed after KWG practices ($t_{(24)}$= -6.49, p< .05). While the mean reading speed score of the students before the KWG was 58.96, the mean reading speed score after the KWG was 69.08. This finding shows that KWG is positively effective in increasing students' reading speed.

As can be seen in the table, there was a significant increase in the reading speed scores of the control group students. ($t_{(24)}$= -4.42, p< .05). While the average of reading speed pre-test scores of the control group students was 63.36, the average of reading speed post-test scores was 73.16.

Findings Regarding the Prosodic Reading

The outcomes of the Shapiro-Wilk test and the Skewness-Kurtosis value, which are used to establish the conformity of the data obtained from the prosodic reading skills of the groups to the normal distribution, are shown in the Table 14 below:

Table 14. Prosodic Reading Skills Shapiro-Wilk Test and Skewness-Kurtosis Value Results

		Statistics	sd	Skewness	Kurtosis	p
E	Pre-Test	.871	25	.774	-.256	.004
	Post-Test	.895	25	-.402	-1.147	.014
C	Pre-Test	.862	25	.054	-1.496	.003
	Post-Test	.932	25	-.029	-1.181	.096

According to the results seen in the Table 14, the control group post-test (.096), is normally distributed due to the fact that it is p>.05. Other test results were examined in terms of the skewness and kurtosis values of the relevant tests since p<.05. Since these values are between +1.5 and -1.5 (Tabachnick & Fidell, 2013), it can be said that the scores show a normal distribution.

Table 15. Reading Speed Pre-Test and Post-Test Scores T-Test Results

Test	Group	N	$\bar{X}$	S	sd	t	p
Pre-Test	E	25	7.00	3.02	48	-1.72	.092
	C	25	8.68	3.82			
Pre-Test	E	25	11.56	3.88	48	2.02	.048
	C	25	9.36	3.79			

According to Table 15, there is no significant difference between the pre-test scores of the groups regarding prosodic reading ($t_{(48)}$=-1.72, p > .05). Based on these findings, it is possible to say that the students in the experimental and control groups are equivalent groups in terms of expression and sound level, meaning units and intonation, smoothness and speed skills and therefore prosodic reading levels before the practice.

According to the table, there is a significant difference between the groups' prosodic reading skills post-test scores ($t_{(48)}$=2.02, p< .05). According to the findings obtained, it is seen that there is a significant difference in favor of the experimental group in terms of prosodic reading levels of the

experimental and control group students. Therefore, it is possible to say that there is a significant relationship between KWG and prosodic reading skills.

The outcomes of whether the groups made progress according to the pre-test and post-test scores in terms of correct reading are given in Table 16:

Table 16. Prosodic Reading Skills Pre-Test and Post-Test Score Differences T-Test Results

Group	Test	N	$\overline{X}$	S	sd	t	p
E	Pre-Test	25	7.00	3.02	24	-10.45	.000
	Post-Test	25	11.56	3.88			
C	Pre-Test	25	8.68	3.82	24	-3.77	.001
	Post-Test	25	9.36	3.79			

Examining the Table 16, it is seen that there is a significant increase in the scores of prosodic reading skills of the experimental group students after KGW ($t_{(24)}$=-10.45, p< .05). While the mean score of prosodic reading skills of the students prior to KWG was 7.0, the mean score of prosodic reading skills following KWG practices was 11.56. This finding indicates that KWG increases students' prosodic reading skills.

When the table is examined, it is seen that there is a significant increase in the scores of prosodic reading skills of the control group students ($t_{(24)}$=-3.77, p< .05). While the average of prosodic reading skills pre-test scores of the control group students was 8.68, the average of prosodic reading skills post-test score was 9.36. It is observed that there is a small increase in the mean scores of prosodic reading skills of the control group students compared to the mean scores of the experimental group.

Conclusion, Discussion and Recommendations

In the study, it was determined that students generally had difficulty in answering all questions, particularly non-text questions, in the question scale created to establish students' reading comprehension skills. Considering that the highest score that can be obtained from the scale is 12, when the reading comprehension pre-test mean scores of the groups are examined (experimental: 2.68; control: 2.70), it is noted that the scores are quite low. The fundamental reason for the difficulty in answering the in-text and non-text questions in the scale is that the words in the question roots are not known by the students. It is considered that the fact that the words in the question roots are not recognized and cannot be distinguished has led to the problem not being understood and thus not being answered. As a result of the experimental process, according to the post-test measurements obtained at the end of the vocabulary teaching process through keyword games, the average reading comprehension score of the experimental group students increased to 8.40 and a significant and effective increase of about 6 points was determined according to the pre-test results. Nonetheless, no significant change was detected in the control group comprehension score. This result indicates that Keyword Games (KWG) make significant contributions to the process of improving students' reading comprehension skills.

The result that the vocabulary knowledge and increased vocabulary acquired as a result of teaching vocabulary through games improve students' reading comprehension skills is similar to previous studies that found a positive relationship between vocabulary and reading comprehension skills (Akaydın, 2018; Alemi, 2010; Aşuluk, 2020; Atay, 2007; Baştuğ, 2012; Bülbül, 2019; Deniz, 2017; Güleryüz, 1999; Jacovina, Jackson, Snow, & McNamara, 2016; McNamara, O'Reilly, Best, & Ozuru, 2006; Yıldız, Divrik, Özçelik, & Aktaş, 2022). Furthermore, Özdemir and Kıroğlu (2019), in their study on the reading comprehension skills of 4th grade students, revealed that students had difficulties in answering non-textual questions, which supports the result of the research at this point.

The fact that the ability to read correctly, one of the elements of fluent reading, develops as a result of KWG and the average score of correct reading increases by about 8 points to 30.58; on the other hand, the fact that there is no significant difference in terms of correct reading in the control group reveals that the vocabulary teaching process with KWG is effective in improving the correct reading skill of students. The reader's mispronunciation of a word in the text may cause misunderstanding of the word and hence misunderstanding and inadequate understanding of the text, leading to a shift in meaning (Deeney, 2010). Therefore, in order to achieve a fluent reading and an adequate level of understanding, reading errors should be minimized and necessary measures should be taken for this. In the study, it was concluded that the words encountered in the text were read more easily and more accurately by the students as the vocabulary of the students developed as a result of the KWG practices. The fact that Baştuğ et al. emphasized that vocabulary is essential for the reader to recognize the word, that the reader uses her/his own mental dictionary in the process of recognizing the word and that s/he recognizes the words s/he uses frequently and frequently more easily and accurately (Baştuğ et al., 2021) supports the result of the research at this point.

In the study, it is seen that students make reading errors such as skipping, adding, re-reading, misreading and spelling and the most common reading errors among these are misreading and skipping. It was concluded that the error rate of the experimental group students decreased from 11.3 to 3.6, the error rate in addition from 3.6 to 1.2, the error rate in re-reading from 3.4 to 0.3, the error rate in misreading (incomplete reading, displacement) from 15.3 to 12.0 and the error rate in spelling from 5.2 to 0.6. Moreover, it was concluded that there was no significant improvement or change in the number of mistakes made by the control group students. It was concluded that the average number of errors of the experimental group students decreased from 36.8 to 16.6 and there was a significant improvement of 20 points after the KWG practices; and the average number of errors of the control group students decreased from 31.6 to 29.4 as a result of an improvement of approximately 2 points. According to this result, it can be suggested that the vocabulary recognition and discrimination skills of the experimental group students improved significantly as a result of the KWG practices and therefore the reading errors decreased significantly compared to the control group, which contributed positively to the correct reading skills. As a matter of fact, Aşıkcan (2019), Demirtaş (2022) and Yılmaz (2008) concluded that the vocabulary and vocabulary developed as a result of the activities carried out by the students to improve their fluent reading skills reduced their reading errors and thus, there was an increase in the reading speed and correct reading skills of the students, which supports the result of the research at this point.

It was observed that the groups had similar results in terms of reading speed according to the pre-test and post-test results. It was concluded that there was an increase of approximately 10 words in both groups in the average number of words read correctly in a minute. Despite it is seen that there is a significant difference between the first and last measurements of each of the groups, it is not possible to say that the increase in the reading speed of the students is entirely due to KWG practices and that the word games and vocabulary teaching process increase the reading speed of the students.

Rasinski (2010, p. 194) established a reading rate table for primary school students according to grade level and seasons. Based on this table;

- The word range that 2nd grade students should read correctly in a minute is 30-80 in the fall and 70-130 in the spring,

- The word range that 3rd grade students should read correctly in a minute is 50-110 in the fall and 80-140 in the spring,

- The word range that 4th grade students should read correctly in a minute is 80-130 in the fall and 100-140 in the spring.

Rasinski stated that the reading speed of the students at the 4th grade level, which was carried out in the fall season and targeted in this research, should be in the range of 80-130 words. Based on this

statement, in the first measurement, it was concluded that there were 3 experimental and 5 control group students with reading speed in the range in question. In the final measurement, it was concluded that the reading speed of all students included in the study increased, however, 9 students from the experimental group and 11 students from the control group had reading speed in the said range. It is considered that the most important reason why the reading speeds of the students were not at the desired level in both measurements in general is that the schools were closed for about one and a half years during the Covid-19 pandemic and the online education process could not be followed by the students who did not have the opportunity. Since this research was started at the beginning of the year when the face-to-face education and training process started after a long online education process, it is believed that the negative effects of the process are also reflected in the reading skills of the students. As this research started in the 3rd week of September 2021, when face-to-face education started after a year and a half of distance education, it is thought that the negative effects of the process are reflected in the reading skills of the students. As a matter of fact, most of the research on this subject supports our thinking at this point (Ali & Kaur, 2020; Arslan & Şumuer, 2020; Demirdağ, 2022; Kırmızıgül, 2020; Kızıltaş & Çetinkaya Özdemir, 2021). In addition, Kultas and Çalışkan (2021), in their study conducted to determine the problems experienced by classroom teachers during the Covid-19 process, revealed that there were problems in the participation of students in the lesson during the distance education process, the teaching process was not efficient and some teachers and students did not have the necessary infrastructure and technological resources to participate in the lesson.

Following the KWG practices, it was concluded that the mean scores of prosodic reading in the experimental group increased to 11.5 with an increase of approximately 4.5 points; however, there was no significant increase in the mean score of prosodic reading in the control group. This indicates that KWG increases the prosodic reading skills of students and is effective in developing this skill. It is observed that the studies in the literature related to prosody are studies examining the relationship between comprehension and understanding in general (Dowhower, 1987, 1994; Kuhn, Schwanenflugel, & Meisinger, 2010; Miller & Schwanengflugel, 2008; Rasinski, Padak, & Fawcett, 2009) and there are no studies examining the relationship between word games or vocabulary and prosody. Therefore, it is possible to say that there is a gap at this point.

According to Rasinski (2004), a reader's score below 8 on the Multidimensional Fluency Scale indicates that her/his prosodic reading skills are weak and not at the desired level and a score above 8 indicates that this skill is developing and at a good level. From this point of view, according to the results of the research, it was concluded that 12 out of 25 students in the experimental group had a prosodic reading skill above 8 points in the first measurement and that this skill of all students increased after the KWG and the number of students who scored above 8 points increased to 21. In the control group, the number of students with a prosodic reading skill score of 8 and above was 15 in the first measurement, while this number was again 15 in the last measurement and at this point, it was concluded that there was no significant change in the prosodic reading skills of the students.

In the light of the research outcomes obtained in terms of fluent reading items, it was concluded that the process of teaching vocabulary through key word games improved correct reading and prosodic reading skills from fluent reading items and that there was no significant difference between the groups in terms of reading speed. Since the vocabulary teaching process using word games enhances students' vocabulary recognition and word discrimination skills, it is possible to say that their fluent reading skills in general have also improved. It can be said that this development in fluent reading is effective in improving students' reading comprehension skills. Likewise these skills, which are prerequisites for each other, are interconnected skills and a deficiency or positive development in one affects the other skill. As a matter of fact, the studies (Akyol & Ketenoğlu Kayabaşı, 2018; Alkan, 2019; Baştuğ & Akyol, 2012; Güldenoğlu, Kargin, & Miller, 2015; Kaya & Yıldırım, 2016; Öney & Durgunoğlu, 1997; Yüksel, 2010) that have concluded that vocabulary knowledge plays an essential role in developing fluent reading skills and vocabulary and fluent reading skills play an essential role in improving reading comprehension skills support our thinking and research result on this point.

Considering the reading levels and percentages table of Ekwall and Shanker (1998, as cited in Akyol, 2016), when the research data about the reading levels of the students were evaluated, it was concluded that all the students included in the study had *concern level* reading levels based on the correct reading percentages and comprehension percentages obtained as a result of the first measurement. In the final measurement, it was concluded that despite there were increases in the correct reading percentages of the control group students, their reading levels remained at the *Concern* level due to the fact that their reading comprehension percentages were below 50%. In the last measurement obtained after the vocabulary teaching process using keyword games in the experimental group, it was concluded that there was an increase in the correct reading and reading comprehension percentages of almost all students; 2 of the students increased to the *Free* level and 17 to the *Teaching* level; 6 students remained at the *Concern* level. In Demirtaş (2022)'s study examining the effect of prosody on reading skills, the result that the development of prosodic reading skills of students increases their reading levels from concern level to education level supports the result of our research at this point. This improvement in reading levels obtained as a result of the research might be considered as another result that supports the conclusion that KWG practices have a positive effect on students' fluent reading and reading comprehension skills.

Suggestions

In line with the results obtained based on the findings obtained within the scope of the research, the following suggestions can be made:

1. The words in the text that the students do not know their meaning should be well determined. Vocabulary teaching studies can be carried out by using word games containing these words determined prior to reading the text.

2. It is essential to determine the reading errors that students make during reading. It can be explained to teachers that these mistakes are an important factor affecting fluent reading and reading comprehension skills and that appropriate scales and inventories should be utilized in order for the correct determination of reading errors, fluent reading and reading comprehension skills.

3. In the textbooks prepared in line with the Turkish Course Curriculum, vocabulary studies can be re-evaluated and activities related to vocabulary teaching can be enriched. Nevertheless, the issue of how vocabulary teaching should be done through games or different activities can be explained in the guidebooks.

4. Trainings can be given to increase the awareness of all branch teachers, especially classroom teachers and Turkish teachers, in order to learn Keyword Games (KWG) practices and implement them in their lessons.

5. It is observed that vocabulary teaching through word games is mostly based on foreign language (English, German) courses. Research can be conducted on the Turkish course and examining the effect of word games on other basic language skills.

6. It is seen that vocabulary development studies are mostly conducted in secondary and high school level classes. Studies targeting primary school level can be increased.

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