THE EFFECT OF VISUALS, GAMES, AND SONGS ON VOCABULARY LEARNING OF THE STUDENTS WITH SPECIFIC LEARNING DIFFICULTIES

(Research article)

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Abstract

The study aims to investigate the impacts of visuals, games, and songs as vocabulary teaching materials on students with specific learning difficulties (SLD) who learn English as a foreign language. The participants are 6th and 8th-grade students with SLD. Data have been collected through pre-and post-tests of achievement, pre- and post-interviews with their parents, and teacher journals after the collection of consent forms. Expert opinions have been received for achievement tests and interview questions. Tests have been analyzed quantitatively, and content analyses have been conducted to analyze the qualitative data. At the end of the study, visuals, games, and songs were found useful for students with SLD in their process of English vocabulary learning, and the students felt more motivated to learn English.

Keywords: English vocabulary, visuals, games, songs, specific learning difficulties (SLD)

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1. Introduction

"Sun is for cucumbers, rain for rice" (Vietnamese Proverb).

Each person is unique with individual differences. People can learn a foreign language at a different rate, with different techniques and methods, or may need extra support to be able to learn better. Some of these differences can be "specific learning difficulties" that are also called by other names such as specific learning disabilities or differences in the literature. For instance, Kormos and Smith (2012) prefer the expression specific learning differences (SLD) for students with special needs who have dyslexia, dyscalculia, autism spectrum disorder (ASD), attention deficit and hyperactivity disorder (ADHD), and Asperger´s syndrome (as cited in Nyikes, 2019, p. 16). Plocková (2013, p. 9) states that "According to the individuals with Disabilities Education Act, a child has a specific learning disability if he or she encounters unexpected underachievement in one or more of the following areas: 'oral expression, listening comprehension, written expression, basic reading skills, reading fluency skills, reading comprehension, mathematics calculation and mathematics problem solving".

Students with specific learning difficulties do not need to have intellectual deficiencies although they may have difficulties in having long attention span throughout the classes and developing or expressing language skills and components such as grammar and vocabulary as stated by Korkmazlar (1999, cited in Erol and Gündoğdu, 2023, p. 81). However, as Juřičková (2006) emphasizes the importance of learning English vocabulary and the necessity of dealing with it systematically, vocabulary is a crucial component and the first step in learning a language because having active vocabulary knowledge facilitates communication among people who learn English as a foreign language. Because "everyone has the right to education" (Universal Declaration of Human Rights, 1948, cited in UNESCO, 2005, p. 12), these students are expected to benefit from vocabulary instruction processes.

It is important that teachers have pedagogically useful ideas and effective techniques to support these learners' language learning process. There are many techniques for vocabulary presentation and teaching such as using synonyms/ antonyms; visuals as realia, flashcards, videos, posters, body language; music, and games. However, most of the studies in the literature have focused on only dyslexia one of which is by Mohamadzadeh, Sotoudehnama, Marandi, and Tafti (2019) who conducted a multiple-case study to teach English to students with dyslexia in Iran, and they concluded that phonics instruction in L2 promote students' performance in both L1 and L2. It is also stated by Kormos (2012) that "There is very little empirical research on the L2 learning processes of students with SLDs other than dyslexia" (p. 2), which can be because dyslexia is more common than other SLD types as Afitska and Moah Said (2022) mention in their study. Arju (2019) explores the English learning experiences of students with dyslexia in content language integrated learning (CLIL) and inclusive practices in mainstreaming schools and finds that an intervention can have a positive effect when it is planned very well. Halimi (2022) focuses on the challenges of teaching English to students with dyslexia and finds out some difficulties such as limited time and lack of support by the schools in terms of providing differentiated lesson plans or tips to foreign languages to work with these students. In a recent study by Yıldırım and Surer (2021), researchers developed

adaptive serious games such as word, memory, category, space, and math for children with SLD in a special education center and find that these games are enjoyable and have positive feedback by the participants. Gharaibeh and Dukmak (2021) conducted an experimental design research to see the effectiveness of a computer-based multisensory program on the English reading skills of students with dyslexia and reading difficulties and found a significant difference in the students' mean scores between the groups of the study. Romero (2020) works with a focus group of ninth and tenth-grade students with dyslexia in an action research through which multisensory activities are used to teach verbs, grammar rules, question words, and minimal pairs. In the end, it is seen in the study that these activities are useful to help students exercise and remember because the senses are integrated into the process.

As a result, it is seen that the literature is so limited in teaching English vocabulary to students with SLD to guide the teachers working with these students in their classes. Görgün and Melekoğlu (2019a) review the studies conducted about special learning difficulties in Turkey, and there is not a single study related to foreign language teaching and SLD in the list of topics according to their findings. As a result, the current study will contribute to the field with its findings for the students and implications for their teachers.

Everyone has the right to be educated and learn school subjects including foreign languages. Moreover, vocabulary development is one of the key requirements of learning a language. Nevertheless, students with SLD cannot follow their classes as much as their peers without SLD can because they do not have enough vocabulary competence. In addition, as Al-Zboon, Al-Dababneh, and Baibers (2022, p. 150) state, "There is an obvious lack of competence among teachers regarding working in an inclusive setting, as well as a lack of curriculum for those with specific learning difficulties (SLD)."

Students with specific learning difficulties need extra support in English language teaching and learning contexts because of the challenges they have in the learning process. As Erol and Gündoğdu (2023, p.98) state, students with SLD may feel worried and lose their self-confidence while covering new topics because they already have difficulties in their native language. However, teachers can feel incompetent working with these students as they do not have enough special pre- or in-service training about their difficulties and how to manage their learning processes. Therefore, the current study will focus on the effects of three vocabulary presenting and teaching techniques so that the findings can give teaching ideas and tips for the teachers of students with SLD.

This study aims to see the effects of three vocabulary teaching techniques such as visuals, games, and songs on students with specific learning difficulties and support the literature about the topic.

For this purpose, the following research questions will guide the study:

1) Is there any difference between the achievement levels of students with SLD before and after the intervention? If yes, to what extent?
    a. To what extent do visuals affect the vocabulary learning process of students with specific learning difficulties?

b. To what extent do songs affect the vocabulary learning process of students with specific learning difficulties?

c. To what extent do games affect the vocabulary learning process of students with specific learning difficulties?

2) What are the perceptions of parents about the intervention of students with specific learning difficulties?

3) What is the researcher's point of view about the process of the intervention?

Moreover, the following hypothesis have been suggested for the study: Visuals, games, and songs increase the vocabulary achievement levels of students with SLD.

1.1. Specific Learning Difficulties

The term to express problems in the process of learning has changed over the years sequentially as learning disabilities, learning difficulties, and, lastly, learning differences (Nyikes, 2019). The researcher prefers using the term "difficulty" as it represents the participants' diagnoses better.

"Specific learning difficulties" is a general title including four categories according to the American Psychiatry Association (DSM IV, 1998, cited in Koç, 2012, p. 10) such as reading difficulty (dyslexia), writing difficulty (dysgraphia), calculating difficulty (dyscalculia) and difficulties that cannot be defined.

Huys (2020, p. 9) states the definition of dyslexia as the following:

"Dyslexia is an alternative term used to refer to a pattern of learning difficulties characterized by problems with accurate or fluent word recognition, poor decoding, and poor spelling abilities. If dyslexia is used to specify this particular pattern of difficulties, it is important also to specify any additional difficulties that are present, such as difficulties with reading comprehension or math reasoning" (DSM-5, 2013).

The next group of specific learning difficulties is dyscalculia which is "related to the understanding of concepts and symbols in mathematics", so it is not relevant to foreign language learning as Plocková (2013, p. 12) underlines.

Dysgraphia, the third group of difficulties, is about writing and drawing skills, and "it generally refers to extremely poor handwriting" (Tlustošová, 2006, p. 12).

The reports of participants in the study do not state a specific characteristic of these first three categories, so they can be included in the last group which is called "undefined specific learning difficulties".

1.2. Foreign language teaching

Nwoye (1988, as cited in Arju, 2019, p. 56) summarizes some frequent problems of students having language-based learning difficulties as reading and understanding written texts, learning, and understanding different phonemes, graphemes, and digraphs from their native language, comprehending new syntax, remembering vocabulary items, spelling, searching for word while speaking and following instructions. Therefore, that is the reason why the current study focuses on improving their vocabulary knowledge.

"Foreign language learning and teaching refer to the teaching or learning of a nonnative language outside of the environment where it is commonly spoken" (Moeller and Catalano, 2015, p. 327).

As a result of globalization, English has been spoken as a means of communication all around the world. Therefore, it has been taught in many different contexts as a foreign language with the use of special techniques and methods varying from traditional and teacher-centered approaches to more communicative and learner-based ones for many years. Moreover, thanks to the advances in technology, even web-based materials and techniques have been integrated into foreign language teaching processes recently.

To create an effective learning atmosphere and achieve intended outcomes, planning and organizing language lessons rich in various materials and techniques play a crucial role in the process because learners have different characteristics such as needs, interests, levels, and learning styles. Like many other learners who have individual differences, the ones with specific learning difficulties need attention and care to be able to make the best use of this language-learning environment.

As Kormos (2017, p. 30) underlines, specific learning difficulties affect the students' both first and second language learning processes, so more research should be conducted to understand their language acquisition skills better.

1.3.   EFL Vocabulary and SLD

There are many English vocabulary teaching techniques and materials in foreign language teaching. In the context of the current study, visuals such as flashcards and videos; games, and songs have been chosen to focus on because these are techniques that support concrete learning with contextual clues, and more senses of the learners are activated in the process. Moreover, they create a learning by fun atmosphere.

As students with specific learning difficulties need to be exposed to these various materials and techniques to improve their English vocabulary, this study aims to enrich their learning environment with three types of them.

In the literature, many studies support the effectiveness of these techniques. For instance, Lynhiavu (2013) makes use of visuals such as photographs, still pictures, video clips, and realia and finds out that the participants acquired intended vocabulary items. Another study is about the use of games with 6th graders conducted by Gülsoy (2013) who concludes that using vocabulary games is effective, and "EFL teachers can create a beneficial atmosphere in the classroom" with them (p. 45). Lastly, Çevikbaş, Yumurtacı, and Mede (2018) state that songs can improve young learners' vocabulary, and English teachers prefer using them as effective pedagogical tools.

On the other hand, few studies are focusing on the learning processes of students with SLD. For instance, Total Physical Response (TPR) is suggested by Juřičková (2006) so that they can remember new words easily because it provides learners with a strong memory association in the process.

1.4.   Related studies

Cohen (2006) studies teacher-student interaction in EFL classrooms with students who have specific learning difficulties and finds out that types of interaction such as interactive, reciprocal teaching of reading, writing, vocabulary, and grammar are effective in the process.

Juřičková (2006) works with eight sixth-grade children with SLD aged between 12-13 to identify their preferred ways to learn vocabulary and finds out that the most popular ones are those that require the most senses "such as movement, hearing, speaking, and touch, and at the same time the activities have to be interesting, funny, easy to understand, and that the children can practice them by themselves or together with their friends" (p. 55).

Koç (2012) investigates the actions of primary school teachers towards students with specific learning difficulties and finds out that teachers cannot spend enough time with these students, which affects them negatively. Moreover, they generally prefer individual studies, ask them to work with successful students, give them responsibilities to attract their attention, make use of visuals and simple activities they can manage, cooperate with the families and counseling service, and give them prizes.

Mavuso (2014) conducts qualitative interpretive research to identify the experiences of senior phase teachers in specific mainstream schools and summarizes some suggested strategies such as giving students extra work, translating, reteaching, differentiation, assessment of learners, and providing peer support to facilitate learning processes of students who have specific learning difficulties.

Delimehmet Dada (2017) examines the relationship between vocabulary and reading comprehension of students with specific learning difficulties in the causal-comparative study. According to the findings, there does not seem a significant relation among students with typical development in terms of these two dimensions while students with learning difficulties have a moderately meaningful relation between their vocabulary knowledge and answering questions in the narrative and informative texts. The research suggests earlier evaluations for vocabulary knowledge and improving the skills of these students.

Görgün & Melekoğlu (2019b) study the development of a reading support program for students with learning difficulties to improve reading fluency and comprehension skills. They state that students with SLD generally have problems in reading although the participant teachers report that they do not have support in reading programs or materials. The findings of the study suggest that teachers prefer repetition activities, giving homework, cooperating with the families, recording videos, and making use of tablets while working with these students.

Arı, Yıkmış, and Özokçu (2019) review experimental studies on specific learning difficulties in Turkey and state that they are carried out with dependent variables such as Maths, Science, writing numbers in English, reading, visual perception, and independent ones which are education programs (Frostig, PASS), teaching techniques and computer-based education.

Sinou (2022) studies the effectiveness of using digital flashcards on the academic vocabulary of students with specific learning difficulties in mainstream classes and finds that they are useful and valuable tools.

Ramdhani and Ibrahim (2022) study the benefits of flashcard media in improving the speaking skills of elementary school students with specific learning difficulties and find that it is practical, attractive, and effective because students can easily recognize letters and pronounce vocabulary items. Moreover, students can memorize the vocabulary and tell the stories by looking at the pictures, which also helps them develop their imagination and critical thinking skills.

Afitska and Said (2022) aim to explore practices of second language teachers working with students having specific learning difficulties and identify that teachers use such techniques to help learners as highlighting for better focus and comprehension, increasing font sizes in texts, providing extra instruction or scaffolding for tasks and using extra visual or aural support in activities and materials.

As a summary of the studies, it is suggested that these learners with specific learning difficulties need to be supported with different types of tools and techniques so that they can benefit from the language learning process better, on which the current study focuses.

2. Method

This part includes details of the study such as sample, participants, research design, instruments, procedure, and data analyses.

Purposive sampling has included students with specific learning difficulties at secondary schools because this identification is so common in this age group (11-14). The participants of the study are two male secondary school students in mainstream classes in the 6th and 8th grades and their mothers. The students are aged 13 and 14 called P1 and P2 in the study, respectively. Moreover, their mothers are coded as P1M and P2M.

P1 has had the diagnostic report of special learning difficulty since he was in third grade. On the other hand, P2 took the same report when he started school because he was born with epilepsy. Both students have taken English courses at school since they were second graders. P1 has never taken any remedial training in English so far although P2 has had this training for one or two hours a week since he was a third grader. Except for the activities conducted by the researcher throughout the study, P1 attended only online classes (3 hours a week) with his classmates while P2 took face-to-face classes for two hours a week at a course center to prepare students for LGS (a standard entrance examination for high schools) and could not attend any online classes because of the internet limitation. Lastly, both students were exposed to some English while playing an online game in their daily lives.

The researcher talked to the teacher from the school counseling service about the details of the participants' specific learning difficulties. However, none of the reports include detailed information about what their learning characteristics or levels of difficulties are or

how they perceive the new information. Therefore, they can be included in the "undefined" group of specific learning difficulties.

According to the observation of the researcher throughout the sessions, it was seen that both participants had similar characteristics in terms of their perception and learning processes. For instance, they both needed to practice new vocabulary items as many times as possible although they could easily comprehend their meaning using the context available. Moreover, they did not have much difficulty in reading and writing in Turkish and English. On the other hand, P2 made an extra effort to practice the words he learned each week voluntarily out of the sessions.

The current research has been conducted as a case study to be able to investigate the topic better because as Creswell (2014) states, "Case studies are a design of inquiry found in many fields, especially evaluation, in which the researcher develops an in-depth analysis of a case, often a program, event, activity, process, or one or more individuals" (p. 14). Moreover, Cohen, Manion, and Marrison (2007, p. 253) underline the importance of the case studies stating that "contexts are unique and dynamic, hence case studies investigate and report the complex dynamic and unfolding interactions of events, human relationships and other factors in a unique instance". Therefore, the researchers wanted to have a deeper understanding of the process of teaching vocabulary using visuals, games, and songs to students with SLD.

The data have been collected through achievement tests as pre and post-tests, and semi-structured interviews for both of which expert opinions have been taken. Two experts in the field of English Language Teaching were asked to evaluate the appropriateness of the achievement tests and interview questions to ensure the instruments' reliability and validity, after which changes were made according to their comments. Later, piloting was done with the participants from another similar context. Moreover, triangulation was done with three different data collection tools, which increases reliability (Yıldırım& Şimşek, 2021, as cited in Erol &Gündoğdu, 2023).

Matching activities were more common in the tests so that participants would not have difficulty in spelling and focus on the meanings of the words studied more easily. Vocabulary items and pictures in both tests were taken from participants' coursebooks. The test for 6th grade consisted of four parts: 1) Writing down the names of six breakfast items (butter, sausages, jam, cucumber, cereal, croissant) under their pictures, 2) Matching six weather conditions (snowy, lightning, hailing, stormy, windy, sunny, cloudy) with their pictures, 3) Matching five fun fair vocabulary items with their pictures (bumper cars, roller coaster, Ferris wheel, carousel, train ride), 4) Matching eight jobs (cook, mechanic, driver, lawyer, hairdresser, dentist, engineer, tailor) with their pictures. The other one for 8th grade included four parts, too: 1) Writing down the names of seven camping materials under their pictures (torch, pocketknife, matches, rope, sleeping bag, tent), 2) Matching five cooking methods with their pictures (fry, boil, roast, steam, grill), 3) Writing down the names of four sports (mountain biking, golf, skydiving, archery) under their pictures, 4) Writing down the names of vocabulary items about tourism such as bridge, castle, urban, rural and square under their pictures. Semi-structured interviews with the mothers were conducted both at the beginning of

the process and at the end for about 15 minutes each to be able to compare their ideas. The pre-interview included five questions such as What has your student's experience of learning English been so far? What is his attitude/approach towards learning English? Does he have exposure to English in daily life or at home? What kind of activities attract his attention to learning English?   while post-interview questions were as follows: What do you think about your student's approach to English in this process? Did he have an interaction with English in daily life except from our activities and online classes throughout the process? Did you talk to him about our activities? What was his reflection? How do you think our activities such as visuals, games, and songs affected his learning? What would you like to add according to your observation throughout the process? Moreover, one of the researchers had the role of the teacher in both cases and kept a journal after each session.

After the consent forms were received, both participants completed pre-tests: P1 did it online as there were no face-to-face classes for them at school at that time while P2 could have a chance to do it at school. Then, according to the test results, sessions were planned based on vocabulary items participants did not know yet. The study lasted four weeks with 40 minutes of online classes each week, and a maximum of six vocabulary items were chosen to teach at a time so that the participants would not feel overloaded and have difficulty learning them.

For the content of the lessons, themes such as breakfast, camping, weather, cooking, fun fair, sports, occupations, and tourism were selected from the students' coursebooks because they were concrete enough and the ones that could be adapted to all types of materials studied in the current research. As one of the effective vocabulary teaching principles, at most seven items have been covered at a time to motivate students to learn them more easily.

All three types of activities (visuals, games, songs) were added to the lesson plan on breakfast for P1 and camping for P2's first week. The lesson plan for this week included PowerPoint (PPT) presentations with pictures of the vocabulary items butter, sausages, jam, cucumber, and cereal for the "breakfast" theme with P1 and tent, torch, pocketknife, matches, rope and sleeping bag for "camping" with P2. Both participants could see the expressions with their pictures on the screen. In the song activity, they could hear most of these words in a fun way and tried to sing together. For the game part of the class, they played online hangman on "Fun with English" which is a software developed by a publisher.

The following three weeks were organized to include just one type each so that the impacts of techniques and materials could be compared. Therefore, visuals such as flashcards, videos, and matching activities with pictures were used on the weather for P1 and cooking methods for P2 second week. The PPT presentations were prepared with pictures of weather items such as snowy, stormy, lightning, cloudy, windy, and hailing and expressions of cooking including boil, steam, fry, roast, and grill. Students also watched videos covering these items and tried to identify them. Lastly, the PPTs included another activity so that the participants could see the pictures and match them with the related vocabulary items from the list given.

Songs were planned for the following week. P1 wrote down fun fair elements in the first song he watched on a video website and tried to sing the second one that was included in the coursebook together with the researcher after he listened to it a few times. The songs

included expressions such as Ferris wheel, carousel, bumper cars, and train ride. P2 had two songs on sports both of which were made up by the researcher and tried to sing them together in the same way as P1. They covered the words mountain biking, golf, archery and skydiving.

The last week was planned with games such as Kahoot (a website to create online games), hangman, and miming (one acts out the words while the other guesses them) on occupations for P1 with the words cook, lawyer, engineer, tailor, mechanic and hairdresser and tourism for P2 including the vocabulary items square, bridge, urban, rural and castle.

Both students had assignments to revise the vocabulary items of each session with the techniques of that week. For instance, they prepared vocabulary cards with pictures in the week of visuals by themselves or with the help of elder siblings.

At the end of the teaching sessions, both students completed their online post-tests, and short interviews were carried out with them with questions such as What do you think about the activities we have done so far? How did you feel? Which one was the most useful one for you? Which one did you like most? for five to seven minutes each. Finally, mothers were interviewed about the process.

Table 1

Vocabulary Items and Techniques Used Weekly

Participant	Week	Vocabulary Items	Techniques and related materials
P1	1	Butter, Sausages, Jam, Cucumber, Cereal	All three types
	2	Snowy, Stormy, Lightning, Windy, Cloudy, Hailing	Visuals
	3	Roller coaster, Train ride, Carrousel, Ferris wheel	Songs
	4	Cook, Lawyer, Engineer, Tailor, Mechanic, Hairdresser	Games
P2	1	Torch, Pocketknife, Matches, Rope, Sleeping bag, Tent	All three types
	2	Fry, boil, roast, steam, grill	Visuals
	3	Mountain biking, Golf, Archery, Skydiving	Songs
	4	Square, Bridge, Urban, Rural, Castle	Games

Achievement tests were scored to see the impacts of the activities, and a statistical significance test was conducted so that the researchers could compare the differences among them. Moreover, interviews were transcribed, and content analyses were conducted for them and the teacher journal.

3. Results

The results from the collected data have been presented and discussed according to the order of research questions in this part.

RQ1: Is there any difference between the achievement levels of students with SLD before and after the intervention? If yes, to what extent?

According to the pre-test findings, P1 was familiar with the meanings of just the following items: croissant, sunny, bumper cars, dentist, and driver, so these items were not included in the planning of the sessions. On the other hand, P2 could do items such as skydiving, golf, steam, and grill correctly in the pre-test, but it was realized that he did them by chance using them according to the order of the words given. Therefore, these expressions were also added to the lesson plans of the study.

Table 2

The Percentages of the Pre and Post Test Scores

Participant	Pre-Test (%)	Post-test (%)
P1	18	100
P2	20	100

The achievement levels of the P1 and P2 were 18% and 20% respectively in the pre-tests while 100% success was achieved at the end in both post-tests. There was a significant difference between the tests according to statistical analysis of paired samples T-test because the p-value was less than 05 (p:,004), which showed that all types of techniques were useful for teaching English vocabulary to students with specific learning difficulties.

Table 3

Percentages of the Items in Pre-and Post-Tests of the P1

Parts	Pre-Test (%)	Post-test (%)
1 Breakfast	3	18
2 Weather	4	28
3 Fun Fair	5	30
4 Occupations	6	24

P1 was familiar with one vocabulary item in each part "breakfast", "weather" and "fun fair" while with two items in the "occupations" part. On the other hand, P1 could complete the whole parts correctly in the post-test.

Table 4

Percentages of the Items in Pre-and Post-Tests of the P2

Parts	Pre-Test (%)	Post-test (%)
1 Camping	5	30
2 Cooking	5	25
3 Extreme Sports	10	20
4 Tourism	0	25

P2 was familiar with one vocabulary item in the parts "camping" and "cooking" while with two items in the "extreme sports" part. However, there was no correct answer about the part "tourism". On the other hand, P2 could manage all parts correctly in the post-test, too.

Table 5

Mothers' Comments on Useful Techniques

Interviewee	Pre-Interview	Post-Interview
P1M	Visuals and games	Visuals
P2M	Games and videos	All three types

Secondly, in the pre-interviews, when asked about the favorite techniques of their children, P1M stated that P1 might be interested in visuals and games more, and P2M said that as P2 felt motivated by fun, games, and videos could be more effective for him. On the other hand, during the post-interviews, P1M focused on P1's interest in visuals while P2M underlined the effectiveness of all types of techniques for P2. Moreover, both students reported that they liked the visuals most in the process when they were interviewed at the end.

Thirdly, in the journal entries, it was identified that P2 found visuals useful to get the meaning of new vocabulary, but he needed extra support to remember these items better while songs were effective and fun to P1. However, P1 could not remember the expression Ferris wheel which he learned with songs the previous week. That might be because it consisted of two words, and he was unfamiliar with it beforehand. Moreover, he had some difficulty with the word stormy which was one of the words covered in the week of visuals. The visual related to this word included both rain and lightning to give the actual meaning of it, but he might have found it a little bit confusing to remember. The picture of it in the post-test was clearer to identify, which might be the reason why he could do it more easily.

Finally, it was understood that all techniques were useful in the process of learning English vocabulary for students with specific learning difficulties. As they all supported students' learning, they could be preferred for different purposes. For instance, visuals could be more useful to present the meaning of new items while games and songs could work better to practice the learnt items.

RQ2: What are the perceptions of parents about the intervention of students with specific learning difficulties?

Both students had negative attitudes towards learning English at the beginning of the process although P2M said that P2 wanted to make an effort to learn English due to the LGS exam in the pre-interview. P2 had the prejudice that he would not be able to manage to be successful in English according to his mother. Moreover, he was not so eager even to attend the first session. P1M stated that P1 did not want to learn English as he was afraid of failing to speak or be successful in it.

According to the post-interviews, P1M stated that she reminded him of the session hours and called him while he was playing in the park to come home for the classes, but he started to come without a need for her to do so during the process, and he felt more self-confident. Moreover, P2M said "He is waiting for the sessions impatiently and excitedly despite his unwillingness in the beginning. We are shocked if this is the same P2…" In the pre-interview, she stressed that according to teachers with whom P2 had remedial training before, he benefitted from one-to-one classes. Therefore, it might be concluded that both the activities throughout the study and working with one teacher especially contributed to his motivation to learn the vocabulary items.

When P1 and P2 were interviewed in the end, they summarized the process with the following statements:

"The more I learn, the nicer becomes English for me. I was worried feeling that I would not be able to succeed at the beginning, but I can do it now." (P1)

"I could do very little English before, but I can remember what I have learned better now. All of them were good, but I would not be able to understand the words if I had not seen their pictures." (P2)

RQ3: What is the researcher's point of view about the process of the intervention?

The journal entries had specific notes about participants' reactions to different techniques. For instance, firstly, P2 was reluctant to sing the songs as he was worried about being judged because of the way he sang, but when the researcher made him feel safe, he liked singing together, which was not supported by Juřičková (2006) who stated that boys did not like singing. Moreover, P2 stated that the meanings of the words came to his mind while trying to memorize the song he was assigned after the previous session. While playing the games, he felt happy with the scores he got and said that the games made him think at the end of the session. On the other hand, according to P1's reported opinion of the techniques, he had fun with all types of them.

It was seen in the interviews and notes in the teacher's journal that the use of the techniques affected the students' motivation in addition to their learning.

To sum up, it was seen that all techniques affected participants' vocabulary learning process positively. As they could practice the words with different types both during and after the sessions, they enjoyed learning English and had the feeling of success, which motivated them to learn more.

4. Discussion

As a result of the interviews, it was seen that they had both positive attitudes towards visuals, which might be because they provided clues to get the meanings of new items and remember them more easily. This finding was in line with Juřičková (2006) who identified that posters, pictures, and drawing were some of the most popular activities of students with SLD to learn vocabulary. What is more, Sinou (2022) compared digital and traditional paper flashcards for the academic vocabulary acquisition of students with learning difficulties and indicated that digital ones were more effective than traditional paper flashcards. As the visuals used in the current study were digital, the findings were similar in terms of the effects of the materials used.

Moreover, the participant students in the study were interested in using technology in the process and this is a similar finding to the one suggested by Turan and Atila (2021) in a study that focused on the effects of augmented reality technology in science education for students with SLD.

As the findings suggested the participants in the current study were motivated to learn the vocabulary items and had positive feelings in the end, which was supported by Sarı Yıldırım and Mirici (2023) who studied the effect of an Action-Oriented approach on the

English language skills of the students with SLD and stated that the students were encouraged to use the vocabulary they learned in the intervention process outside the classroom.

Lastly, all three types of materials contributed to the process of vocabulary development of the students with SLD in the current study although Erginer (2022) claimed that it was difficult for the children to remember if they used more than one sense together at the same time.

5. Conclusion

A summary of the current research, some limitations of the study, suggestions for further studies, and pedagogical implications are covered in this part.

The study was conducted to investigate useful English vocabulary teaching techniques for students with specific learning difficulties, and how they affected their vocabulary learning process. Therefore, online classes were carried out with two students who had these difficulties individually for four weeks. To get a deeper understanding of the contexts, their mothers who could observe them in the process better were interviewed, and the researcher kept a journal taking detailed notes about the sessions. Lastly, interviews were carried out also with the students themselves to get their opinions.

According to the findings, it was seen that all types of techniques used in the study supported the students' vocabulary learning and motivated them to learn English. Moreover, students were active both in and after the sessions, which might be one of the reasons for the positive effects as Laufer and Hulstijn (2001) stated that "… the deeper they are involved in the vocabulary learning process, the better they will retain the word in their memory (cited in Cohen, 2006, p. 152).

One of the most important limitations of the study was the lack of related literature about teaching English vocabulary to students with SLD. The researchers could find very few studies to compare and discuss the findings of the current research. Moreover, because of time limitations, long-term effects could not be observed in the process.

Only online sessions could be organized due to the pandemic Covid-19. Therefore, further studies can be conducted to be able to observe the participants better and see the impacts of face-to-face classes over a longer period when the pandemic is over. Moreover, research can be carried out with different age groups to compare the findings.

As positive impacts of the techniques covered in the study have been identified, teachers can plan their vocabulary sessions making use of them according to the needs of their learners with SLD. Moreover, extra-curricular activities can be organized with these techniques to support the vocabulary learning process in addition to the classes at schools.

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