The Effects of Usıng Games in Teaching Vocabulary to EFL Learners

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Abstract

The purpose of this study is to examine the effects of using games in teaching vocabulary to EFL students. The research is an experimental research with a pretest-posttest control group. In the study, the effect of the independent variables, game teaching and the traditional method, on the dependent variable, student success, was investigated and tried to be presented in a comparative manner. The research was carried out in the fall semester of the 2023-2024 academic year in a primary school located in the city center of Ankara. The population of the research is the students studying in the 7-C and 7-D classes of the specified private school. The findings consistently indicate that foreign language teaching through games is more effective than the traditional teaching method across different aspects of the cognitive domain. The Experiment group consistently outperformed the Control group in knowledge acquisition, comprehension, and application. These results underscore the limitations of traditional teaching methods in comparison to more interactive and engaging approaches, such as game-based learning. The study provides valuable insights for educators and policymakers seeking to enhance language learning outcomes through innovative and student-centered instructional methods.

Keywords: Gamification, attidute, perception, achievement

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1.INTRODUCTION

1.1.Problem

The learning of foreign languages, such as English, has been continually evolving through the examination of various methods to effectively enhance language skills. However, the challenges faced by English as a Foreign Language (EFL) students in the vocabulary learning process may not be easily overcome with traditional teaching methods. In this context, focusing on the effects of using games in teaching vocabulary to EFL students can bring an innovative approach to language learning strategies.

Game-based learning has the potential to transform language learning into a fun, interactive, and participatory experience. However, the actual effects of using games in teaching vocabulary to EFL students have not been sufficiently explored. At this point, the effectiveness of various game-based learning strategies in increasing the vocabulary of EFL students, their impact on motivation levels, the permanence of learned words, and the development of language skills should be investigated.

Moreover, it is essential to explore whether students at different language proficiency levels respond differently to game-based learning, the influence of cultural differences on this process, and the attitudes of students towards game-based learning. This way, a fundamental understanding of the potential benefits of using games in teaching vocabulary to EFL students can be gained, and these strategies can be applied more effectively.

1.1. Purpose of the research

The purpose of this study is to examine the effects of using games in teaching vocabulary to EFL students. For this purpose, hypotheses such as the following were created;

Hypotheses

1. There is no significant difference between the posttest scores of the Experiment group, in which foreign language teaching through games was applied, and the control group, in which the traditional teaching method was applied, in the knowledge level section of the cognitive domain of the achievement test.

2. There is no significant difference between the posttest scores of each of the Experiment and Control Groups in terms of the success scores they received from the comprehension step section of the cognitive domain of the achievement test.

3. There is no significant difference between the posttest scores of the Groups achievement test in the application phase section of the cognitive domain.

4. There is no significant difference between the posttest scores of the students in the groups from the entire achievement test.

5. There is no significant difference between the average scores of the students in the achievement test and the knowledge level achievement of the cognitive domain.

6. There is no significant difference between the average scores of the cognitive domain comprehension step achievement scores of the achievement test of both groups.

7. There is no significant difference between the posttest scores of the Groups achievement test from the application step of the cognitive domain.

1.2. Importance of Research

Examining the effects of using games in teaching vocabulary to FL students has significant importance in the field of language learning. This importance is based on the following basic points:

Increasing Motivation: Games can increase students' engagement in the language learning process. A fun and interactive environment can increase students' motivation towards language learning, which can lead to a more sustainable and effective learning experience.

Strengthening Vocabulary: Games can strengthen students' vocabulary through different strategies and repetition in teaching vocabulary. Games can support learning by providing practice in using words in context.

Developing Interaction and Communication Skills: Games encourage interaction among students and can improve communication skills. Students can have the chance to practice their language skills by interacting with each other through games.

Making What Has Been Learned Permanent: Games give students the chance to use and apply the words they have learned in the context of games. This can help students make the information they learn longer-lasting and permanent.

Improving the Language Learning Experience: Compared to traditional teaching methods, game-based learning can make the language learning experience more enjoyable and engaging. This may contribute to students developing a more positive attitude towards lessons.

For these reasons, understanding the effects of using games in teaching vocabulary to EFL students and developing these strategies represent an important research area in order to provide more effective language teaching and strengthen language skills.

In addition, educational digital games; It can also be used in complementary or enriching educational activities (Demirel, Seferoğlu, & Yağcı, 2005). In these respects, although it is thought that digital games will be beneficial in the learning processes, some of the reasons for the use of digital games in the classroom environment by the student groups who will use the games can be counted as attracting attention, maintaining motivation and interest, having rich visual content, shortening the learning period, and supporting meaningful learning (Doğusoy & İnal, 2006).). Educational digital games form the basis of digital game-based learning, and digital game-based learning facilitates the work of educators as learners have longer attention spans in these environments, these environments are of a quality that will support lifelong learning, and they offer the opportunity to easily teach any subject to individuals of all ages (Prensky, 2008). 2001). In addition, educational digital games; It can also be used in complementary or enriching educational activities (Demirel, Seferoğlu, & Yağcı, 2005). In these respects, although it is thought that digital games will be beneficial in learning processes, the analysis of the demographic structure of the student groups who will use the games is important and comprehensive studies are needed to bring digital games to classroom environments in Turkey (Doğusoy & İnal, 2006).

2. LITERATURE REVIEW

2.1.Game

It is very difficult to define the word game. According to parents, games are additional activities they do for fun outside of their daily work, a learning tool that can make the lesson fun for teachers, and activities where children can spend their time all day. In fact, play is an inseparable part of children's lives (Aksoy & Çiftçi, 2020). The main reason why a single and general definition of the game cannot be made is that it takes place in more than one discipline as a concept (Aytaş & Uysal, 2017). Some of the definitions made are as follows:

➤ "It is a volitional action or activity that is freely consented, but carried out within certain time and place limits in accordance with completely imperative rules, has a purpose in itself, accompanied by a sense of tension and joy and the awareness of being different from ordinary life" (Huizinga, 2015). citing Gönül, 2019).

➤ "It is the most natural learning tool that affects all developmental areas of the child, with or without a purpose, with or without a purpose, with or without a tool, in which the child participates willingly and with pleasure" (Koçyiğit et al., 2007).

➤ "Activities organized for entertainment or distraction are physical or mental competition conducted by the participants in accordance with the rules" (cited from Merriam-Webster, 2017, Aytaş & Uysal, 2017).

➤ "It is entertainment that develops talent and intelligence, has certain rules, and helps to have a good time" (TDK, 2017).

Three common points, which are accepted by the majority of game definitions in the literature, draw attention; participants, rules and goals (Smed & Hakonen, 2003). Within each game, there are the person or people playing the game, the rules that are determined before playing the game or shaped while playing the game, and the goal to be reached or just to have fun and enjoyment. In short, one of the ways children learn about life is through play. Play is a transition between the child's real life and fantasy worlds, a way of expressing themselves. Playing games is just as important and necessary for a child as eating, drinking, being loved and being well cared for (Koçyiğit et al., 2007).

2.2. Digital Game

Digital games can be named in different ways such as "Computer games", "Video games" or "Console games", and these name differences can cause confusion. This change in naming is due to the different platforms on which they are played (Terlemez, 2019). When the same game is played on the computer, the computer game can be called a console or video game when played by connecting to a monitor such as a television. The common point of all these games is that they can be played with technological tools. For this reason, "digital game" is perceived as a more general concept that includes all of the other names. This name is also used in this study.

2.3. Difference Between Game and Digital Game Concepts

With the rapid development of technology in the last century, the concept of games has undergone a great digitalization. Although the concept of "game", which we previously

perceived as a traditional game, now turned into a digital game, has not changed in terms of meaning and basic elements, it has diverged in terms of some features. These distinguishing features are the environment in which the game is played, the number of participants, the materials used during the game, the form and content of the game (Hazar et al., 2017). Traditional games are activities that can be played in a place like a street, house, school, sometimes with fixed rules and certain materials (such as steel rod, blindfold, hide-and-seek), and sometimes completely based on the imagination of the child. Digital games, on the other hand, are games produced as software that can be played on the screen with a technological device.

The fact that digital games are produced in an industrial way and that what is experienced in digital games takes place in a virtual environment are the obvious differences that distinguish digital games from traditional games (Söğüt, 2020). There is a deep cultural accumulation for traditional games. However, today, even if children are side by side, they prefer to play digital games rather than traditional games, they talk about digital games among themselves and spend their free time with these games. It is understood from these situations that a new digital game culture is forming and growing rapidly (Biricik & Atik, 2021).

Computer games are potentially the most engaging pastime in human history. According to Prensky (2001), this is due to the combination of twelve features:

➢ Games are a form of entertainment. This gives us pleasant times.
➢ Games are exciting. This gives us an overly enthusiastic participation.
➢ Games have rules. This gives us structure.
➢ Games have goals. This gives us motivation.
➢ The game is an interactive process. This gives us active participation.
➢ Games can be adapted to the situation. This gives us continuity.
➢ Games have results and feedback. This makes learning happen.
➢ Games have win states. This gives students self-confidence.
➢ Games include competition, challenge and clash of ideas. This gives us adrenaline.
➢ Games have problem solving. This ignites creativity.
➢ There is communication in games. This ensures socialization.
➢ Games have a story. It allows to experience the emotion in the story.

Nothing but computer games provides all of these twelve features. It can be said that books and movies provide many of the features listed. However, they are not interactive activities, they do not provide active participation (Prensky, 2001).

Due to the above-mentioned features, it is desired to use digital games in education and to make the learning process interesting and fun.

2.4. Usability of Digital Games in Education

With the increasing importance given to education and the areas where technology is used in our country since the 2000s, the inclusion of computers in education has come into question and has come to the fore in different ways over time (Çakıroğlu et al., 2009). Adapting digital games to education is one of these issues. This situation has emerged not only from the advancement of technology, but also from the young generation's interest in these games and their indifference to the lessons. Students get bored in the lessons, act indifferent to the subjects, and generally seem unhappy during class hours at school.

Motivation is indispensable for high school students to come to school willingly and leave school happily. The desired motivation for students cannot be achieved with educational digital games. Because the entertainment factor, which is constantly mentioned and cared for, is very low in these games. While producing digital games for educational purposes, the educational aspect is increased by reducing the entertainment factor. For this reason, these games are not interesting enough for students. On the other hand, although it is desired to produce educational digital games as interesting as commercially produced games, financial resources do not allow this. In this case, the use of games produced for commercial purposes in education comes to the fore. These games are generally thought to negatively affect academic achievement. Drummond and Sauer (2014) analyzed the effects of video games on education by reanalyzing the data of more than 192,000 students in 22 countries participating in 2009 PISA. In the research, it was concluded that video game cannot be said to have a negative effect on academic performance. Many similar studies abroad have revealed that games produced for commercial purposes can be used in education and that they do not harm students academically and emotionally.

2.4.1. Foreign Language Teaching Methods

When the word method is used in the field of education, it means "the path followed to reach the student's goal". Thanks to the method, it is aimed to organize and conduct teacher and student activities during the lesson according to a plan by using certain teaching techniques and tools (Fidan, 1983:167). Techniques are in-class activities planned within the method. As it can

be deduced from this definition, the method can be called as the whole of the techniques used to reach the target behaviors at the end of the training process.

Hengirmen (1997:16) claims that the number of foreign language teaching methods in the world is around 40. However, each method emerged with the aim of providing students with different linguistic skills according to their nature; while emphasizing one language skill, he ignored another (Tarcan, 2004: 7). Under these conditions, it is up to the teacher to choose the most appropriate group of methods and techniques for the target behavior. However, it is extremely important to develop and use new teaching techniques in line with the needs and expectations of younger students (Bazo & Cabrera, 2002). As a result, the teacher should be able to teach the students the skills with the most appropriate method, taking into account the physical conditions of the classroom, the student profile and the target behavior.

2.4.1.1.Traditional Method

The traditional method, also known as Grammar - Translation Method, first emerged in the teaching of Latin and Greek; It was used in the teaching of modern languages until the middle of the 20th century (Ayhan, 1999: 27). Currently, it can be observed that this method is still valid in foreign language courses and self-study books, where the target behavior is only to pass the passing grade in the written exams.

In this method, while the student is passive in terms of classroom activities, the teacher is active. The teacher is the source of knowledge and is the sole ruler of the class. He conducts the class like an orchestra conductor, first explaining the grammar rules openly using the mother tongue as if explaining a mathematical formula. Then, by translating the written texts in the target language into the mother tongue or by translating the texts in the mother tongue into the target language, the pattern in the target language, which should be taught by emphasizing unknown words, is transferred to the students (Richards and Rogers, 1991: 3). In this way, the grammar rules of the target language are given in accordance with the deductive method, as in the example of "subject + have (auxiliary verb) + been (auxiliary verb) + verb (-ing) + object + adverb" and the taught pattern and sample sentences and newly learned words are made memorized by students (Harmer, 1991: 4). Speaking skill is given very little place, the purpose of this method is to teach the structural features of that language rather than to use the target language effectively.

In addition, in the classroom environment where the traditional method is applied, students avoid answering the questions posed by the teacher to the class, although they know the answer

correctly, because they do not actively participate in the learning action, they are afraid that they will make a mistake or that their friends will make fun of them or that their teacher will react negatively (Hızal, 1982: 13-14).).

Students can be successful in the exams that measure grammar and reading skills after this method, but since speaking and writing skills are not emphasized, students are likely to have difficulties in situations that require these skills. Again in this method, as a result of not gaining the ability to think in the target language and acquired translation habit; When the student is asked to produce, they think in their mother tongue and try to translate what they think into the target language. In this process, the brain has to perform many complex operations such as thinking, choosing the target language's pattern of the structure of the sentence it creates in the mother tongue, placing the equivalents of the words in the appropriate places, and finally saying or writing it. Unless students are trained as linguists or teachers, the validity of this method in language teaching is controversial (Yıldız, 2001:11).

2.4.1.2.Contemporary Methods

In the 19th century, language teaching experts Marcel, Prendergast and Gouin were pioneers in bringing alternative dimensions to foreign language teaching. These experts, who believe that speaking and pronunciation, which are neglected in the traditional method, should be emphasized, argued that memorizing the grammar rules and the native language equivalents of the words in the target language is not sufficient for language learning (Richards and Rogers, 1991: 7). As a result, new methods have emerged that can be examined under the umbrella of contemporary methods.

The common feature of these new methods is to enable students to discover the rules themselves in a context, instead of giving the grammar rules openly. In this respect, unlike the traditional method, learning takes place by induction. Translation and the use of mother tongue have been minimized, and the oral and written production dimension of the language has come to the fore. The teacher moved away from the center of the lesson, the students were drawn to the center and their active-passive roles in the teaching process were thus replaced. In contemporary methods, the task of the teacher should be guiding, facilitating learning, aiming to keep student participation at a high level (Taşlı, 2003: 24).

The newly developed methods agree that young students learn the target language faster and more effectively when they have fun during the lesson and enjoy the activities (İnan, 2006: 2). However, it is also concluded that the activities specially designed for this group should not be

boring and should include constant movement and entertainment. As a matter of fact, Radick (2006) named the implementation of lesson plans prepared in this style as "edutainment" (entertaining while educating) and emphasized its importance.

In addition to this information, it can be argued that the starting point of contemporary teaching methods is related to the mother tongue learning process. Just like a child learning his mother tongue, sentences are passed directly in context instead of grammatical rules. Even without knowing the order of placement of the elements of the sentence, the student can communicate in the target language by thinking in the target language again (Cook, 1991: 34). Being able to think and express oneself in the target language also eliminates the obligation of translation; It saves time for the student in the production phase, and the student is protected from possible mistakes when thinking in their mother tongue and translating into the target language. Vahapoğlu (2002: 81) talks about the impossibility of being successful in that language unless one learns to think in a foreign language.

2.4.2. Classroom Foreign Language Teaching Techniques

Techniques brought by contemporary teaching methods to the field of language teaching have been examined under this title.

2.4.2.1.Show

Demonstration technique is a technique used to show how to do a job in front of students (Ayhan, 1999: 36). This technique can be used without the need for a mother tongue during the teaching of mostly unknown words, the development of speaking skills and the presentation of a new grammar rule (Demirel, 1993: 56).

In this technique, while real materials can be brought to the classroom; In cases where this is not possible, the show can be performed by drawing on the board, imitating, and explaining with previously known words or phrases.

2.4.2.2.Question-Answer

In general, it can be argued that it is the most widely used technique in the classroom. It is useful in developing listening and speaking skills, as it aims to think and judge in a foreign language and transfer it to the other party in a foreign language.

The question-answer technique enables students to actively participate in the lesson, to put what they have learned into practice, to analyze and synthesize the subjects they know, and to

establish good communication with the teacher and their classmates (Ergün and Özdaş, 1997: 54-55).

In order to get the full benefit of this technique, if questions are asked in general, the whole class should be thought to answer, correct answers should be immediately reinforced, and wrong answers should be corrected immediately. If the questions are asked one by one, they should be asked randomly to the students. In the question-answer technique, instead of always asking the teacher and answering the student, the student should be able to ask a question to another student or teacher (Demirel, 1993: 58).

2.4.2.3.Role Playing and Drama

The activity of staging situations that may arise in social life in an environment where students participate as actors and reaching the target skills of the lesson with the help of these scenes is called drama (Ergün & Özdaş, 1997: 84).

In the role-play technique, students develop their speaking skills in a foreign language by disguising themselves as different personalities, expressing the feelings and thoughts of the person they are disguised as (Demirel, 1993: 59).

In order for the student to act well, not only the target language skills, but also the self-confidence and the courage to speak in public are required, which can be said to be almost impossible to start as soon as you enter the class. In order for this technique to be effective, in-class warm-up activities should be done for a sufficient time beforehand.

Before the series of free activities, it is likely that it would be more appropriate for students to simulate an existing conversation within the scope of controlled activities. In addition, in terms of reinforcing courage, Demirel (1993:61) argues that willing and successful students should be given priority in these activities and other students should be encouraged.

Yüksel (1996: 20-24) lists the benefits of using drama in education as follows:

➢ Dramatization brings a wide range of experience to the classroom.
➢ Dramatization puts students in a position to use what they have learned.
➢ It is a rehearsal for real life. It provides communication skills in various situations.
➢ To shy students, the role given is a mask. This type allows students to express themselves more easily and be comfortable.
➢ Dramatization activities are both more fun than other techniques and more interesting and facilitating learning.

> ➢ Dramatization provides fluency and motivates students during speaking.

In addition to these items, Holden (1981: 3) argues that while learning a foreign language, the student's taking on the character he plays will also help him learn how to act in different environments according to the situation, and it is also effective in enriching his vocabulary.

2.4.2.4.Pair and Group Studies

The activity in which at least two and at most eight students come together and work on the same subject and purpose, depending on the number of students in the class, is called group work (Demirel, 1993: 65).

In group work, the teacher should determine the spokesperson and also the leader of the group while assigning tasks to the groups he/she creates. In group work, it can be observed that the students speak their mother tongue or that other than a few students in the group watch what is going on. In order to prevent this, the teacher should follow the circulating activity and help the students to communicate in the target language. The tasks given to the groups should also be adjusted according to the foreign language level of the students in the group.

2.4.2.5.Teaching with Educational Games

Rixon (1988: 3) defines "game" as a source of entertainment that is bound by rules, can be repeated continuously, has a purpose and is fun. Carrier (1985: 6) mentions that games are invaluable activities for teachers to use, as they take students away from the formal classroom environment and create an opportunity for them to use their skills. Play is the child's most natural learning environment. Thanks to the game, they try what they hear and see and reinforce what they have learned. Children become aware of their senses through play and develop hand-arm skills. In addition to these, the game also helps the child's personality development as well as his mental development (Taşlı, 2003: 26).

2.4.2.5.1. Foreign Language Teaching to Children

In recent years, teaching English to children has gained great importance, especially since foreign language courses were started in the 4th grade of primary education; In fact, after the law was published, "Teaching English to Young Learners – Teaching Children a Foreign Language" course was placed in the undergraduate program in the category of compulsory courses (YÖK Web Site).

Studies have not been able to reach a clear conclusion that children are more advantageous in learning English than adults; however, it is necessary to follow a different method than adults in language teaching (Rubin & Thompson, 1982: 4).

Philips (1993: 5), while describing young learners; meant students from the 1st grade of primary education up to the age of 11-12. Children at this age differ in foreign language learning compared to adults. Children differ from adults in terms of needs, expectations, interests, psychological and cognitive development. For example, children are distant to rules, explanations, and topics that are unfamiliar with their world. Since the energy accumulation in the body is intense, they are easily distracted. And this reveals the fact that it is a torment for them to "become a flower" and listen to the teacher for a long time (Yıldız, 2001: 2).

Dilbaz (1998: 20) summarizes the teaching behaviors that should be applied to the students in this group as follows:

➢ Make sure your course content consists of activities in context.
➢ Make them responsible in the learning process.
➢ Remember the importance of motivation, never discourage them.
➢ Encourage them to participate in all teaching activities so that they are not distracted.
➢ Never think that everything that needs to be learned has been taught when the lesson is over. Reinforce the same topic under different activities in the following days.
➢ A crowd sitting quietly in the classroom like a flower in a pot actually indicates that the lesson will not be productive. Create opportunities for social interaction and tolerate noise.
➢ Create a stress-free, interesting and fun-filled atmosphere.
➢ Make sure to make changes in activities every 5-10 minutes to avoid distractions. Remember that they get bored very quickly.
➢ In your lesson plan, ensure that they are always active in the teaching process.
➢ Do not think that every activity you choose for the class will be liked by them. Get feedback from them after each activity about whether they like it or not.
➢ Speak as clearly and slowly as possible when explaining the activity to the class. If necessary, use native language for full understanding of the activity.
➢ Prevent them from seeing the English lesson as "a lesson". Keep your evaluation phase as covert as possible. Emphasize that English is a way of communication, not a lesson. For this purpose, you can prepare lesson plans that establish links between English, music, mathematics and science lessons.

2.4.2.5.2. The Function of the Game in Foreign Language Teaching

Play is an unimaginable part of the children's world. Since they love to play games, it is easy for them to learn while having fun. Playing games in foreign language teaching has a very important role in the development of language skills, beyond providing motivation. In particular, the learning style called "self-directed learning" can only be achieved with games (İzgören Kutay, 2003: 3). In this context, the teacher should be able to implicitly impart the skill that needs to be taught to young students by decorating the lesson with games (Yıldız, 2001: 2). In this way, the student will be able to reach the target behavior while having fun, unaware that the lesson is being taught. Moon (2000:6) on the other hand, in terms of classroom play activities, there is already a potential for playing and entertainment in young students; He also argues that students assimilate the game played in the classroom and want to continue the game, which leads to real life without realizing what has been learned.

Numbers, which are difficult to teach by spending a long time, can be taught in a short time with a simple and fun game. Wright et al. (1990: 2) suggested that the game technique addresses all target language skills and can be used at all stages of the teaching process. Indeed, looking at the game structurally, it can be thought that the game is a perfect fit for children's foreign language lessons and has many different uses.

In the traditional understanding, some teachers may see the game as a reward to be given to the students in the last five minutes of the lesson if they behave well. However, today, the game is seen as an effective tool that moves the language out of the teacher-centered language lesson in gaining communicative skills in terms of content and structure in foreign language lessons (Rixon, 1988: 5).

In language teaching, games make the lesson more interesting while adding variety to the lesson and communication. In this regard, Dobson (1985: 109) argues that the game creates a flexible and comfortable atmosphere in the classroom, allowing the student to have an extroverted character. The game technique in language teaching allows students to express their feelings and thoughts more comfortably and precisely by combining language and movements.

In addition, games get students accustomed to smooth and fluent speech, improve social relations, reduce shyness, and help develop imagination (Chastain, 1976). At the same time, thanks to games, students' desire to learn will increase, and since students will constantly move during the game, the need to act specific to their developmental age will also be met (Dunn, 1978).

Mc Collum (1980: ix) points out that there are many valid reasons for using game technique in a language classroom. According to the author, the prominent role of play in language teaching is undeniable, given the importance of communicative skill in the target language and the necessity of using this skill creatively in various life situations.

Moon (2000:6), on the other hand, argues that young students already have a potential for playing and having fun in terms of classroom play activities. In addition, students want to assimilate the game played in the classroom and continue the game, which leads to real life without realizing what has been learned.

In summary, Carrier (1985: 6) lists the advantages of using the game in the classroom as follows:

➢ Games bring change to classroom activities and students enjoy these changes.
➢ Games facilitate attention by constantly changing the rhythm of the lesson; increases motivation.
➢ Implicit exercises on certain topics in the target language can be performed through games without the students being aware of it.
➢ Since games create an informal classroom atmosphere, they allow even the most shy students to express themselves.
➢ Games transform the traditional formal classroom position of the teacher into a teacher who "organizes activities and then steps aside and follows his students".
➢ Games increase communication between students.

Apart from these, games are also a measuring tool. Students' weaknesses are revealed during the activities; deficiencies can be corrected.

4.FINDINGS AND INTERPRETATION

4.1. Mann Whitney U and T Test Results for the 5th Grade English Grade Point Averages of the Groups

Table 1. Mann Whitney U and T Test Results for the 5th Grade English Grade Point Averages of the Groups

Grou	N	$\bar{X}$	SS	sd	Le	A	t	A	M.W.	A	Sı	Sır
Exp	20	4,8	0,4								21,75	435,00
Kontr	25	5,00	0,000	43	11,265	0,002	-1.537	0,132	225,00	0,110	24,00	600,00
Total	45											

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As a result of the analysis, five students were excluded from the evaluation and a total of 45 students were selected, 20 for the Experiment group and 25 for the control group. There was no loss of subjects in either group during the study. Table 1 shows the t test and Mann Whitney U test results regarding the 5th grade grade point averages of the Groups.

When the findings in Table 1 are examined, a statistically significant difference was observed as a result of the t test applied for the 5th grade grade point averages of the students in the Experiment and Control Groups. However, since it was determined that the distribution was not normal according to the Levene test (P = 0.002), Mann Whitney U test was also applied and no significant difference was found between the groups (P = 0.110). While the mean rank of the experimental group was 21.75, the mean rank of the control group was determined as 24.00. According to this result, it can be said that Groups was created impartially based on 5th grade English grade point averages. Mann Whitney U and t Test Results for Groups' 5th Grade Grade Point Averages are shown in Table 2.

Table 2. Mann Whitney U and T Test Results for the 5th Grade Grade Point Averages of the Groups

Grou	N	$\bar{X}$	SS	sd	Le	A	t	A	M.W.	A	S₁	Sır
Exp	20	4,8	0,3								21,62	432,50
Kontrol	25	4,96	0,200	43	7,358	0,010	-1,283	0,206	222,500	0,203	24,10	602,50
Total	45											

The findings in Table 2 reveal the situation regarding the students' 5th grade GPA. As a result of the t test applied to the GPA of the groups, no statistically significant difference was found. However, since the Levene test result showed that the distribution was not normal (P = 0.010), the Mann Whitney U test was applied. No significant difference was determined as a result of this test (P = 0.203). Considering the findings, the average rank of the Experiment group was 21.75, while the average rank of the control group was determined as 24.00. This finding shows that both groups were formed impartially based on 5th grade GPA. The t test results regarding the first five year GPA of the Groups are given in Table 3.

Table 3. t Test Results for the First Five Year General Grade Point Averages of the Groups

Groups	N	$\bar{X}$	SS	sd	Lev.Test	An. Düz.	t	P
Experiment	20	4,90	0,308	43	0,210	0,649	-0,229	0,820
Kontrol	25	4,92	0,277					
Total	45							

The results seen in Table 3 regarding the first five year GPA of the Groups show that there is no significant difference between the Groups (P = 0.820). According to the results of the independent Groups t test, it was determined that the Groups were created impartially based on the GPA of the first five years. After the Groups were created impartially according to these determined criteria, the extent to which impartiality was achieved was tested with the pretest scores they received from the achievement test administered to the students. For this purpose, the independent Groups t test results performed on the pretest scores are presented in Table 4.

Table 4. Average Scores of the Groups from Pretest Questions

Groups	N	$\bar{X}$	SS	sd	Lev.Test	An. Düz.	t	An.Düz
Experiment	20	18,90	1,518	43	1,582	0,215	-0,753	0,455
Kontrol	25	19,20	1,154					
Total	45							

After the experimental and control groups were created according to the three criteria mentioned above, the pretest scores were also evaluated in order to test to what extent these Groups were created impartially. Looking at the t-test results on the pretest scores, it can be said that Groups were created in an unbiased manner. As a result of the analysis, it was determined that there was no statistically significant difference between the groups (P = 0.455). Considering all these findings obtained in the research, it is observed that the students in the Experiment and Control Groups have similar characteristics to each other according to the criteria determined at the beginning. According to these results, it can be said that Groups were created in an impartial manner, this situation was tested with the pretest score averages of the

achievement test applied to the students, and as a result, impartiality was ensured according to the criteria set out in group formation.

4.2. Findings Regarding Hypotheses

Hypothesis 1: There is no significant difference between the posttest scores of the Experiment group, in which foreign language teaching through games was applied, and the control group, in which the traditional teaching method was applied, in the knowledge level section of the cognitive domain of the achievement test.

Table 5. T Test Results Regarding Groups Knowledge Level Posttest Scores

Groups	N	$\bar{X}$	SS	sd	Lev.Test	An. Düz.	t	An.Düz
Experiment	20	31,20	2,628					
Kontrol	25	21,28	2,880	43	0,108	0,744	11,932 *	0,000
Total	45							

The independent Groups t test results applied to the posttest scores regarding the knowledge level of the Experiment and Control Groups are given in Table 5. Accordingly, at the end of a four-week experimental study, it was determined that there was a significant difference between the posttest scores of the students in the group where foreign language teaching through games was applied and the students in the group where the traditional method was applied ($P = 0.000$). In this case, it can be said that foreign language teaching with games applied to the Experiment group during the pretest-posttest process is more effective than the traditional method in acquiring behaviors at the knowledge level of the cognitive field. This result reveals the limitations of the traditional learning environment on student success. Table 6 shows the t-test results applied to Groups comprehension step posttest scores.

Hypothesis 2: There is no significant difference between the posttest scores of each of the Experiment and Control Groups in terms of the success scores they received from the comprehension step part of the cognitive domain of the achievement test.

Table 6. T Test Results Regarding the Comprehension Step Posttest Scores of the Groups

Groups	N	$\bar{X}$	SS	sd	Lev.Test	An.	t	An.Dü

		X			st	Düz.		z
Experiment	20	31,00	2,993					
				43	0,637	0,429	11,517*	0,000
Kontrol	25	21,04	9,951					
Total	45							

The results in Table 6 show that there is a statistically significant difference between the posttest scores of both groups at the comprehension level of the cognitive domain (P = 0.000). This situation can be seen better when looking at the rank averages of both groups (Experiment group X = 31.00, Control group X = 21.04). This result reveals that games are more effective than the traditional method in acquiring behaviors at the comprehension level. Accordingly, it can be said that foreign language teaching through games is more successful. The results of the t test applied to the posttest scores of the students in the Experiment and Control Groups from the application step of the cognitive domain of the achievement test are shown in Table 7.

Hypothesis 3: There is no significant difference between the posttest scores of the Groups achievement test in the application phase section of the cognitive domain.

Table 7. T Test Results Regarding the Application Step Posttest Scores of the Groups

Groups	N	X̄	SS	sd	Lev.Test	An. Düz.	t	An.Düz
Experiment	20	21,20	4,652					
				43	0,521	0,474	5,551*	0,000
Kontrol	25	13,36	4,751					
Total	45							

When the t test result in Table 7 is examined, it is seen that there is a statistically significant difference between the posttest scores of both groups at the application step level of the cognitive domain (P = 0.000). This situation can be better explained when looking at the averages of both groups. According to this result, it is possible to state that teaching English through games applied to the Experiment group is more effective than the traditional method applied to the control group in acquiring the behaviors at the application level level.

Hypothesis 4: There is no significant difference between the posttest scores of the students in the groups from the entire achievement test.

Table 8. t Test Results Regarding the Posttest Scores of the Groups from the Whole Test

Groups	N	X̄	SS	sd	Lev.Test	An. Düz.	t	An.Düz
Experiment	20	83,90	6,138					
Kontrol	25	55,68	9,604	43	0,329	0,569	11.397*	0,000
Total	45							

Table 8 shows the t-test results regarding the posttest scores received by the Groups from the entire test. In the applied test, it was determined that there was a statistically significant difference between the posttest scores of both groups (P = 0.000). The arithmetic averages of both groups explain this situation better (Experiment group X = 83.90, Control group X = 55.68). According to this result, looking at the posttest scores of the groups from the entire test, it can be said that teaching English with the game applied to the Experiment group is more effective than the traditional method applied to the control group.

Hypothesis 5: There is no significant difference between the average scores of the students in the cognitive domain of the achievement test.

Table 9. t Test Results for Groups' Knowledge Level Access Scores

Groups	N	X̄	SS	sd	Lev.Test	An. Düz.	t	An.Düz
Experiment	20	24,00	2,902					
Kontrol	25	13,84	2,996	43	0,011	0,917	11,463*	0,000
Total	45							

The t test results applied to the achievement scores regarding the knowledge level of the achievement test are given in Table 9. Accordingly, it was determined that there was a significant difference between the achievement scores of the students in the group where

English teaching through games was applied and the students in the group where the traditional method was applied (P = 0.000). When the averages of both groups are examined (Experiment group .

Hypothesis 6: There is no significant difference between the average comprehension step achievement scores of the cognitive domain of both groups.

Table 10. T Test Results Regarding Groups Comprehension Step Reaching Scores

Groups	N	$\overline{X}$	SS	sd	Lev.Test	An. Düz.	t	An.Düz
Experiment	20	24,30	2,993					
Kontrol	25	14,08	3,239	43	0,097	0,757	10,874*	0,000
Total	45							

Looking at the results in Table 10 regarding the achievement scores obtained from the comprehension step of the achievement test, it was determined that there was a significant difference between the achievement scores of the students in the Experiment group and the students in the control group (P = 0.000). When the arithmetic averages of the groups are examined, it is seen that this difference is in favor of the Experiment group (Experiment group X = 24.30, Control group X = 14.08). This finding shows that, in terms of achievement scores, games are more effective than the traditional method in teaching English in acquiring comprehension level behaviors. Table 11 shows the results of the t test applied to the achievement scores of Groups from the application step.

Hypothesis 7: There is no significant difference between the posttest scores of the Groups achievement test from the application step of the cognitive domain.

Table 11. T Test Results Regarding Groups Application Step Access Scores

Groups	N	$\overline{X}$	SS	sd	Lev.Test	An. Düz.	t	An.Düz
Experiment	20	16,60	4,684					
Kontrol	25	9,68	7,867	43	0,481	0,492	3,468*	0,001

Total	45								

The t-test results regarding the posttest scores of the application step of the achievement test of the groups in Table 11 show that there is a significant difference between the achievement scores of the students in the Experiment group and the control group (P = 0.001). Considering the averages of the groups (Experiment group X = 16.60, Control group X = 9.68), it is seen that this difference is in favor of the Experiment group.

5. CONCLUSION, DISCUSSION AND RECOMMENDATIONS

5.1. Conclusion ve Discussion

The study involved a total of 45 students, with 20 in the Experiment group and 25 in the Control group. Criteria such as 5th-grade English grade point averages, first five-year general grade point averages, and pretest scores were used to ensure the impartial formation of groups. Statistical tests, including t-test and Mann Whitney U test, were employed to assess the similarity between groups.

The posttest scores for the knowledge level of the cognitive domain showed a significant difference between the Experiment group (games-based teaching) and the Control group (traditional method), favoring the Experiment group (P = 0.000).

A significant difference was found in the posttest scores for the comprehension step of the cognitive domain between the two groups, favoring the Experiment group (P = 0.000).

Significant differences were observed in the posttest scores for the application step of the cognitive domain, with the Experiment group outperforming the Control group (P = 0.000).

The entire achievement test scores indicated a significant difference between the two groups, favoring the Experiment group (P = 0.000).

There was a significant difference in achievement scores related to the knowledge level of the cognitive domain, with the Experiment group showing higher scores compared to the Control group (P = 0.000).

The comprehension step achievement scores demonstrated a significant difference, favoring the Experiment group (P = 0.000).

Significant differences were observed in the posttest scores for the application step of the cognitive domain, with the Experiment group having higher scores (P = 0.001).

The findings consistently indicate that foreign language teaching through games is more effective than the traditional teaching method across different aspects of the cognitive domain. The Experiment group consistently outperformed the Control group in knowledge acquisition, comprehension, and application. These results underscore the limitations of traditional teaching methods in comparison to more interactive and engaging approaches, such as game-based learning. The study provides valuable insights for educators and policymakers seeking to enhance language learning outcomes through innovative and student-centered instructional methods.

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