Polo del Conocimiento

El juego como estrategia motivacional para enseñar gramática inglesa

Gaming as a motivational strategy to teach English grammar

O jogo como estratégia motivacional para o ensino da gramática inglesa

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Resumen

Este estudio describe la implementación del aprendizaje basado en juegos para enseñar gramática inglesa a niños. También evalúa la importancia de usar juegos como una herramienta para enseñar inglés como lengua extranjera (EFL) a niños. Este estudio tiene como objetivo analizar la efectividad del uso de juegos presenciales y virtuales en el aprendizaje de la gramática inglesa en los alumnos de séptimo grado del colegio "Alborada" de Cuenca. Este estudio incluye un pre y post test de gramática que estuvo compuesto por 10 preguntas de opción múltiple y una encuesta que muestra la opinión de los estudiantes sobre el nivel de satisfacción del aprendizaje de la gramática con juegos y su efectividad. Las edades de los participantes oscilaban entre 10 y 12 años. Se seleccionaron a propósito dos grupos de estudiantes, ambos de séptimo grado. Este estudio contribuye al aprendizaje de una segunda lengua mediante la realización de una investigación sistemática sobre la eficacia de los juegos como herramienta para el aprendizaje de la gramática.

Palabras clave: juegos de aula; juegos virtuales; aprender gramática; niños; compromiso; motivación.

Abstract

This study describes the implementation of games-based learning to teach English grammar to children. It also evaluates the importance of using games as a pedagogical tool to teach English as a Foreign Language (EFL) to young learners. This study aims to analyze the effectiveness of the use of classroom and virtual games in learning English grammar in the seventh-grade students from "Alborada" school of Cuenca. This study includes a grammar pre- and post-test that was composed of 10 multiple choice questions and a survey that shows students' opinion about the level of satisfaction of learning grammar with games and their effectiveness. The participants' ages ranged from 10 to 12. Two groups of students were purposefully selected from all the seventh-grade groups. This study contributes to second language learning by conducting systematic research on the success of games as a tool for learning grammar.

Keywords: classroom games; virtual games; learning grammar; children; engagement; motivation.

Resumo

Este estudo descreve a implementação de aprendizagem baseada em jogos para ensinar gramática inglesa para crianças. Também avalia a importância do uso de jogos como ferramenta pedagógica para ensinar inglês como língua estrangeira (EFL) para jovens aprendizes. Este estudo tem como objetivo analisar a eficácia do uso de jogos presenciais e virtuais na aprendizagem da gramática inglesa nos alunos da sétima série da escola "Alborada" de Cuenca. Este estudo inclui um pré e pós-teste de gramática composto por 10 questões de múltipla escolha e uma pesquisa que mostra a opinião dos alunos sobre o nível de satisfação em aprender gramática com jogos e sua eficácia. As idades dos participantes variavam de 10 a 12 anos. Dois grupos de alunos foram selecionados propositalmente de todos os grupos da sétima série. Este estudo contribui para a aprendizagem de uma segunda língua ao conduzir pesquisas sistemáticas sobre o sucesso dos jogos como ferramenta de aprendizagem da gramática.

Palavras-chave: jogos de sala de aula; jogos virtuais; aprender gramática; crianças; noivado; motivação.

Introduction

Games increase students' interest in practicing grammar (Yolageldili & Arika,2011). Children enjoy playing and they take part in games with more emotion and compliance than in any other classroom assignment (Yolageldili & Arika,2011). According to Hudson (2022), active learning requires engagement from the students, and it is possible when they are involved in working enthusiastically in the learning process. The author mentioned that active learning activities engage students in deep rather than surface learning and students use this knowledge in real-life situations. Active learning engages students with the course material through discussions as learners dive deeper into the course content with their teachers and peers before relating it to their real-world experiences; Furthermore, engagement and motivation are a significant benefited to games (Hudson, 2022).

According to Bush (2015), the students were motivated with the games. The researcher suggested that teachers apply gamification to teach grammar about once a week. Games are a tool of social and cooperative learning among children; moreover, games have begun to be included in the learning and teaching process more frequently (Talan et al., 2020). Classroom and virtual games

are implemented in EFL classes at all educational levels. It is also necessary to mention that games help students reinforce certain behaviors such as attention and engagement (Smiderle et al., 2020). Yolageldili and Arika (2011) have emphasized the effectiveness of using games in teaching grammar to young learners from the viewpoints of Turkish EFL teachers working in primary schools. Games have become very important for children and teachers not only because they give pleasure and tranquility but also because the games motivate students to use their language in a creative, imaginative and communicative way (Yolageldili & Arika, 2011). consequently, it is important that teachers keep in mind that the games are not time fillers or instruments created just for fun, but to be integrated into their educational programs.

In this regard, this study aims to evaluate the use of classroom games and virtual games for teaching English grammar to children to find whether classroom games and virtual games can help seventh-grade students understand grammatical structures. The study used a strategy based on games to overcome EFL grammar difficulties. In addition, to shed light about students' attitudes toward the application of games in the English classroom their perceptions were considered. In order to provide information on the use of games to learn grammar, the following research questions were considered as a guide for the study.

1. To what extent does the use of virtual games in the EFL classroom improve grammar learning in seventh-grade students at "Alborada" school?

2. What is the students 'level of satisfaction when learning EFL grammar with virtual games?

Theoretical framework

This research is supported on game-based learning theory and social constructivism theory. The study tries to shed light on how EFL students learn grammar with games based on these theories. It is important to explain each hypothesis and to analyze how the use of games can help pupils learn grammar.

Game-based Learning Theory

Andrew et al. (2019) have found that this learning theory is not just designing games for students to have fun; moreover, it is generating learning tasks that can gradually establish conceptions and conduct students toward an end goal. Game-based learning theory allows students to feel engaged

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with educational materials playfully and dynamically (Pho & Dinscore, 2015). This theory involves the use of games to motivate and engage students in learning a second language. According to Foster and Shah (2020), the implementation of games in the traditional classroom to enhance students' knowledge and commitment in academic field is a rapidly growing innovation. Some innovators of game-based learning illustrated how teachers have included games and overcome the challenges of using them in a school world to help student engagement (Foster & Shah, 2020). Currently, online games have become the best pedagogical tool that provides students with joy while expanding the degree of immersion (Fu et al.,2009). In this regard, games provide opportunities for all students to integrate their prior experiences in different contexts with each individual's knowledge.

Social Constructivism

Lev Vygotsky, the founder of social constructivism thought that people are social beings and that social interaction was an integral part of learning (Powell & Kalina, 2009). Regarding this, theory is based on the social interactions of a student in the classroom along with a personal critical thinking process. The previous authors mentioned that all of Vygotsky's research and studies are involved in social constructivism; moreover, the cognitive development is founded on social interaction. Kurt (2020) stated that most of what children acquire as their culture, their beliefs, cultural values, etc. is the product of dialogues and interactions. Games are effective learning tools for instilling social them (interactions and dialogues). Vygotsky believes that games promote cognitive, social, and emotional development in children (Powell & Kalina, 2009).

Kurt (2020), citing Vygotsky, said that cognitive development is founded on social interaction. According to Powell and Kalina (2009), cooperative learning is a part of creating a social constructivist classroom. Students have a lot to offer to one another; thus, games are cooperative activities that engage individuals, groups or even whole classes to interact among themselves (Powell & Kalina, 2009). Social constructivism is also called collaborative learning because it is based on interaction, discussion, and sharing information among students. Social constructivism is a learning theory that perceives learning as a social process where students engage in group activities for meaningful learning to occur (Powell & Kalina, 2009). Social constructivism changes

the responsibility of knowledge acquisition from the teacher to the student and also converts the student from a passive learner to an active learner (Vera et al., 2020).

literature review

According to Hromek and Roffey (2009), playing games is very motivating for children. In this regard, Hajji and Kim (2019) argued that games have a positive impact on learners, and examined the success of the use of games in teaching grammar lessons. The same authors mentioned that EFL learners face many problems such as lack of motivation and confidence to speak the language in the classroom. In addition, students still have grammatical problems which make them unable to communicate effectively in the English language. Hajji and Kim (2019) and Yolageldili and Arika (2011) emphasized the efficacy of applying games in teaching grammar to children from the perspectives of EFL teachers working in primary schools. The results of their research showed that teachers believe that games are effective tool to teach grammar; nonetheless, they had not used games frequently in the teaching process.

Based on the literature, Bush (2015), Demir and Erdogan (2017), and Yolageldili and Arikan (2011), who are interested in the use of games to learn and teach grammar, emphasized the efficiency and importance of games in the teaching and learning process. Demir and Erdogan (2017) analyzed the importance of studying grammar at an early age; consequently, teachers should select motivating activities for children to learn grammar such as games. Bush (2015) believed that it is important to determine the different effect of using games in the classroom to teach English grammar. The study conducted by this author focused on 34 Turkish students of English as a Second Language (ESL). The participants took a pre- and a post-test; then, they completed a survey to determine their experience and opinions related to this way of teaching. Bush's study reported that the students were motivated by the games. Furthermore, it was suggested that teachers use games as a strategy to learn grammar in their classrooms about once a week. Smiderle et al. (2020) analyzed the impact of games on students' learning, behavior, and engagement based on their personality traits in a web-based programming learning environment. These researchers conducted an investigation for four months with 40 undergraduate students of first-year courses on programming. Students were randomly designated to one of the two

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versions of the programming learning environment, *(1)* A gamified form composed of ranking points, and *(2)* the original non-gamified form. Smiderle et al. (2020) found that games affected learners in different ways based on their personality traits. The results indicated that introverted students who used gamification were more engaged than extroverted students; thus, games are more beneficial to introverts. Gros (2007) states that videogames are useful tools for learning new strategies and for acquiring knowledge; videogames also promote the learning that is characteristic of a technological society.

Methodology

Design of the study

This study adopted an exploratory sequential research design (Creswell, 2012). It used quantitative data to discover whether games can help seventh-grade students at "Alborada" school understand and overcome the difficulties of English grammar**.** In the first phase, a pre-grammar test was used to measure the level of knowledge in grammar the students at "Alborada" school had. The second phase of the study consisted on the implementation of games in the EFL classes and then, a post-test was taken by the students. The information from this post-test was further triangulated in a third phase in which a survey with closed-ended questions was carried out to collect students' opinions to measure the level of satisfaction with the use of games in the EFL teaching and learning process.

Participants

The participants of this study were 38 students from "Alborada" school of Cuenca. The participants' ages ranged from 10 to 12. They were all seventh-graders. The students belonged to two seven-grade groups (A and B); they were purposefully selected because they had six hours of English lessons per week. Regarding ethical concerns, a consent form was provided to the students' parents to obtain their agreement to participate in the research. This form was addressed in Spanish to secure a thorough understanding of the research study (Mackey & Gass, 2005). Students and parents were informed of the purposes and results of the investigation and anonymity was granted.

They also knew their children had the right to withdraw from the investigation at any time. The data collected was safely kept and used only by the researcher.

Instruments

Pre-test and Post-test

A grammar test about present perfect which was designed by the researcher and validated by a group of teachers from "Alborada" school was used as a pre-test to measure the students' level of knowledge in grammar. Then, the use of games was implemented in classes and finally, the post-grammar test was taken by the students. The same grammar test was used as a pre- and post-test to be able to compare the results (Mackey & Gass, 2005) and to determine if there was improvement in the students' English grammar knowledge through the implementation of games in the classroom. The tests consisted of 10 multiple-choice grammar questions/items. Each item has three possible answers; for example, "has", "is" or "have". The grammar test was piloted with a group of teachers from "Alborada" school. Suggestions were considered before giving the test to the participants.

Survey

A survey was used to collect students' opinions to measure the level of satisfaction with the use of games in learning grammar. The survey was constructed by the researcher and validated with a group of teachers from "Alborada" school. These teachers' suggestions were considered to reconfigure the survey and remove some questions as they were irrelevant to the context of this study. The survey questions were related to the participants' preferences to learn grammar with games. The survey was done in Spanish for a better understanding of the students and the veracity of the responses as suggested by Filep (2009). The participants took about 20 minutes to complete the survey.

Procedure

After the parents' approval to allow their children to participate in this study, the researcher gave the learners the pre-test. Then, the implementation of a strategy based on games to teach English

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grammar took place. After that, the post-test was given to the students to determine if there was any improvement in the participants' grammar knowledge. The grammar tests were given with the assistance of another English teacher to avoid subjectivity. The SPSS 25 program (Field, 2018) was used. Descriptive and inferential statistics were calculated in this program. The descriptive ones obey the mean and a 95% confidence interval. To verify the significant increase, error bar charts are plotted but, in addition, the effect size is calculated with Cohen's dz in the program G*Power 3.1 (Faul et al., 2009).

Results

Learning assessment

To assess to what extent does the use of virtual games in the EFL classroom improve grammar learning in seventh-grade students at "Alborada" School, a test containing 10 multiple-choice grammar questions using the present perfect tense was applied. In the test, each question/item has a correct answer for each possibility which is valued with 1 point; however, sometimes, it is also possible to have an approximation to the correct answer, which is valued with 0.5 points, while the other possibility is 0.

Figure 1 shows the results in a line diagram of the averages of each of the pre-test items. In this case, the responses are close to 0.53 in the case of Group A and 0.63 in the case of Group B. The two groups are barely 0.10 points apart, so they can be considered to have a certain homogeneity in the general scores. Reiterative problems in both groups are observed in Q3 and Q7, while the best solved items can be seen in Q4 and Q6.

Figure 1.
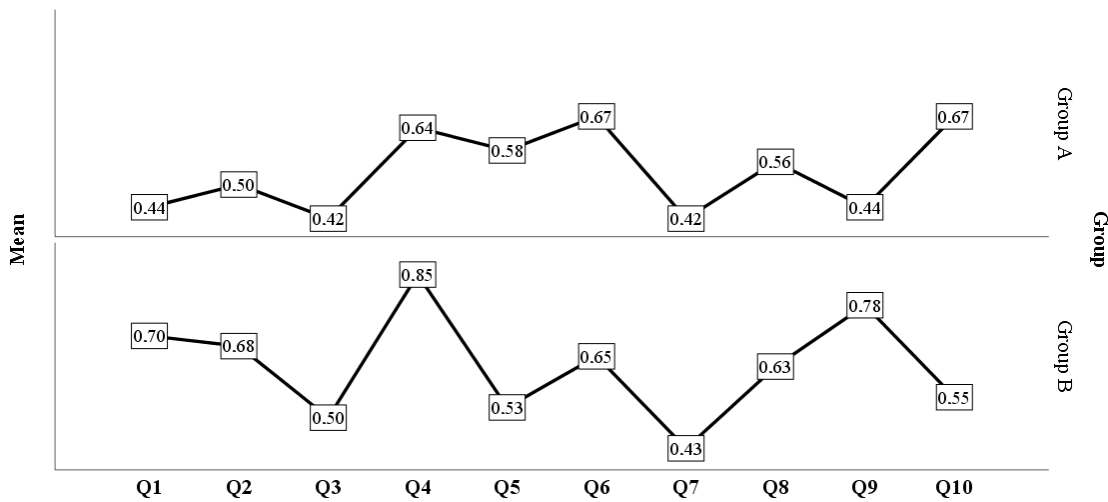*Line plot of the pre-test average score*

Figure 2 shows the results of the post-test. In this case it is observed that at least two items (Q1 and Q4) reached the highest score in the case of Group A. Whereas, in Group B the highest scores correspond to Q2, Q4 and Q9. In short, on this occasion, Group A scored an average of 0.91 points, while Group B scored 0.82 points. It should be noted that the item that presented the greatest difficulty for both, Group A and Group B, is Q7 since only half and a little more than half managed to answer this question.

Figure 2.
Line diagram of the average score of the post-test
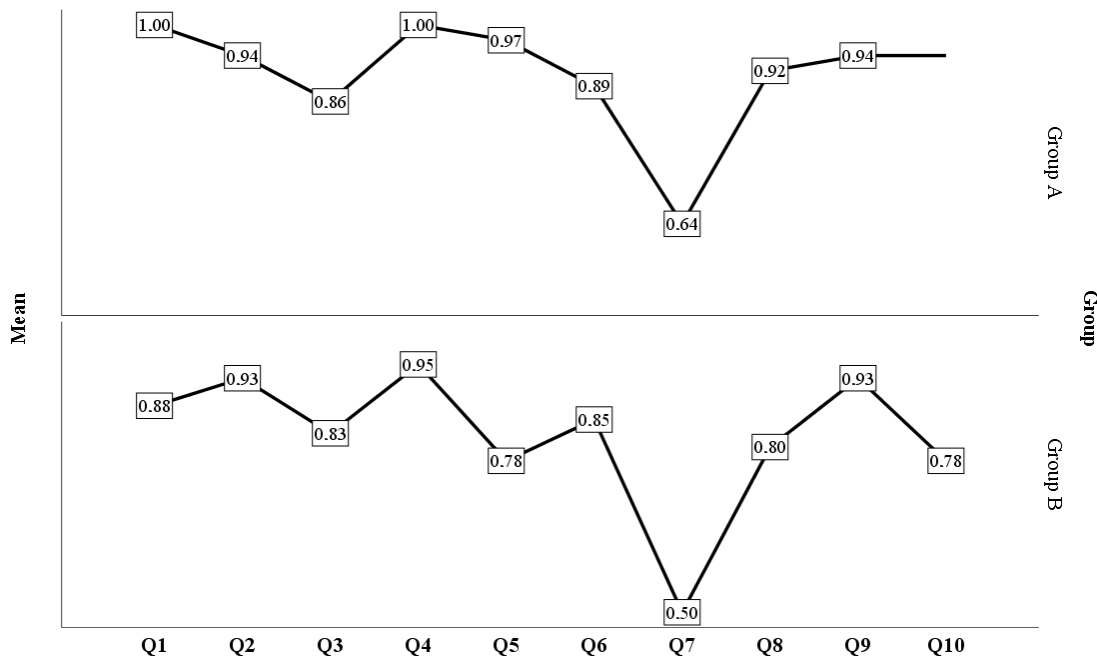
Students' Differences

To summarize and to be able to observe more clearly the results obtained in the two groups, an error bar diagram is shown in Figure 3. In this diagram, the averages are shown together with error bars whose position of the lower or upper limit allows to know visually if there are significant differences between groups. Thus, in both groups there has been a significant increase in the average score, since the limits between the pre-test and the post-test are far from being the same. However, in Group A it has increased from 0.53 to 0.91, a total of 0.38 points which effect size is huge (dz=4.35). In Group B the increase was from 0.63 to 0.82 a total of 0.19 which effect size is very large (dz=1.73). Of course, the impact is much higher in Group A than in Group B.

Figure 3.
Error bar chart of pre-test and post-test overall average
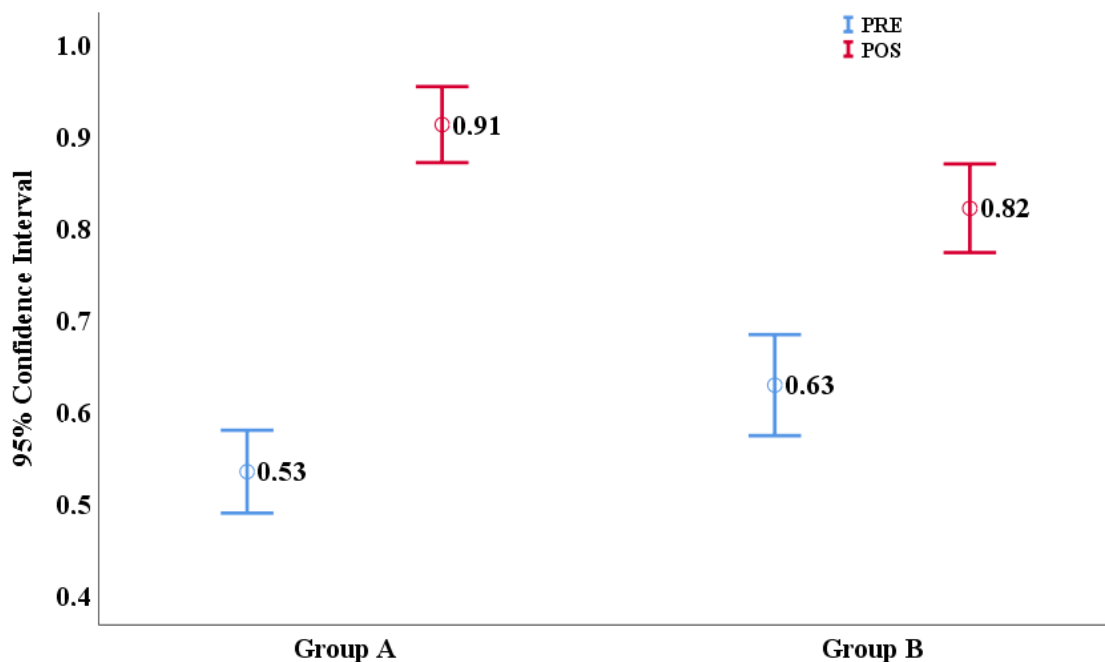
Students' satisfaction

Each child, both in Group A and Group B, was asked if they like to study grammar, the answer was very negative in both cases. In short, most of them do not like to learn grammar. However, in both groups, 100% like to learn grammar with games. When asked if they feel happy when they are learning grammar with games, both groups indicated that they do feel happy. Almost no one said that learning grammar with games is boring. They all stated that learning grammar with games is fun. Almost everyone said that games encourage them to learn grammar. Almost all said that games keep them focused during class. Very few children said that learning through games does not hold their attention. Most of them said that they learn something new when they play games. All the children who were part of the study indicated that they could improve grammar when they learn through games. Questions and answers can be found in the table 1.

Table 1.
Question on student satisfaction

Nº	Survey Items	Group A	Group B
1	I like to study grammar.	1(5,6%)	2(10,0%)
2	I like to learn grammar with games.	18(100%)	20(100%)
3	I feel happy when I learn grammar with games.	17(94,4%)	18(90,0%)
4	Learning grammar with games is boring.	0(0%)	1(5,0%)
5	Learning grammar with games is fun.	18(100%)	20(100%)
6	The games encourage me to learn grammar.	15(83,3%)	17(85,0%)
7	The games keep my concentration during class.	18(100%)	19(95,0%)
8	Learning with games does not hold my attention.	3(16,7%)	1(5,0%)
9	I learn something new when I play.	15(83,3%)	20(100%)
10	I can improve my grammar skills when I learn with games.	18(100%)	20(100%)

Favorite games for students

The students were asked to mention the games, implemented in the intervention phase, that they liked the most and that caught their attention. Almost half of the children mentioned that the game they like the most is Kohoot (44.7%), this was followed by the game Bingo (42.1%), the next game was Baamboozle (21.1%). The other games are below 20%. It is imperative to mention that children have different preferences, there were a total of 20 games that were taught in class.

Table 2.
The most enjoyable games according to students

	N	%
1. Kahoot	18	47,3%
2. Bingo	16	42,1%
3. Baamboozle	8	21,1%
4. Jumping action	6	15,8%
5. Memory cards	5	13,2%
6. Action jumping	4	10,5%
7. Hot seat	4	10,5%

8. Catch the ball	3	7,9%
9. Guessing game	3	7,9%
10. Hang man	3	7,9%
11. Puzzle	3	7,9%
12. Catch ball	2	5,3%
13. Jumping rope	1	2,6%

Discussion

Games are very motivating activities for children and young learners. Games cause an important change in the learning process through social interaction, cooperation and collaboration, and acquire many of the characteristics that promote the well-being of students; moreover, games enhance the learning – teaching process (Hromek & Roffey, 2009). Similarly, in this research, the students were asked if they like to study grammar with games and the answers were very positive, all of them (100%) like to learn grammar with games. Hromek and Roffey's (2009) results and this research's results show that young learners are motivated with games and they really enjoy learning with games.

The present research can be contrasted with Bush's (2015) study. The author mentioned that three class periods of games do not have a significant impact on the acquisition of present perfect as reflected in the scores of a short test; in fact, the intervention group showed a decline in scores for the post-test. On the contrary, in the present research, it was found that the students did have a high score in the post-test. The results might be explained for the fact that the intervention period in which a strategy based of games to teach English grammar lasted a longer period of time. These results are also in line with Hajji and Kim's (2019) study that found that games have a positive impact on learners when implemented for a certain period of time.

Although the participants of Bush's (2015) research valued games, they did not seem to feel that games should replace traditional learning. The author suggested teachers to include purposeful classroom games as a supplement to other educational techniques; however, the use of games as a review technique before a test was not recommended. On the contrary, the results obtained in this study show positive perceptions from the participants' point of view at any time as they mentioned

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games help them keep focus, concentrated on the topic. This finding might be explained by the fact that the participants were young learners, and at this age, students like to be moving and working with different material in the class.

Yolageldili and Arikan (2011) indicated that the majority of research findings mentioned in the Literature recognized that games can support the development of a wide range of strategies that could be useful when learning language. These strategies are described as *(1)* resolution of problems, *(2)* learning of sequences, *(3)* deductive reasoning, and *(4)* memorization. However, despite a positive opinion, few teachers decided to use videogames in their classes (Grass. 2007) likewise, the Yolageldili and Arikan´s (2011) study showed that teachers believe in the effectiveness of using games in grammar teaching; nonetheless, they do not use games as frequently as expected in their classrooms. In contrast, in the present research it is stated that the frequently use of games has positive results when teaching English grammar to young children as was observed with the students from "Alborada" school.

Yolageldili and Arikan (2011) mentioned that games give teachers a chance to help learners acquire new forms and lexis in an effective way. However, these games should not be complicated ones because it tends to be more effective when young learners find it easy to understand a long list of rules. On the other hand, the participants of this study found games very engaging, no matter the kinds of games that were used (short, long, simple, complicated, etc.) during the game strategy implementation phase. The reason for this difference might be explained due to the fact that the participants of these two studies (Yolageldili & Arikan, 2011; and the present study) belong to very different cultures and contexts. In this way, children of different parts of the world could react differently to learning strategy presented to their classes.

According to the results of this research, it would support the idea that games have a great pedagogical value, providing with information for language teachers about the different effects of the use of games in EFL classes. It can be said that the use of games is significantly important in learning in a variety of areas.

Study implications

Most English language learners face some problems in learning English (Getie, 2020). Students do not have a positive attitude toward EFL learning and find it difficult to understand, this issue could be due to the use of boring methods which do not encourage or motivate the students to learn the English language (Getie, 2020). According to Ameliani (2019), grammar is an essential part of the language that cannot be understood easily. The author mentioned that young learners usually face some problem when learning grammar because they should know the structures of the sentence and it is different from their own language; in addition, students usually get confused when they want to organize the sentence grammatically correct. Therefore, this study was focused on the use of games for teaching and learning grammar. It is expected that the present research would contribute to the EFL teaching and learning practices as it presents systematic research on the effectiveness of games as a tool for learning. More research needs to be conducted in this area; thus, teachers can either overcome these obstacles or realize that games are an effective tool for teaching EFL grammar to children.

Conclusions

The level of mastery of the present perfect was around 50% initially; nevertheless, after the intervention process it reached 80%. Therefore, it is declared that the implementation of a strategy based on games to teach English grammar to young learners was successful. Through the present study it has been possible to state that when the classes work regularly as planned in the schedule and there is involvement of the children, it is possible to increase almost 40% of the level of English grammar mastery.

Another important aspect to be mentioned in terms of satisfaction is that the level of interest in grammar is high when combined with games. Children are interested in playing, not so much in the content; however, they understand better when the content is presented in the form of games. It was noted that although they do not like grammar, they find it interesting when they play games to learn it. Consequently, English grammar development in playful learning environments obtained a high level of performance according to the children's test results.

It is imperative to mentioned that classroom games or virtual games are both enjoyable strategies to learn English grammar as the most preferable games mentioned by the participants of the study were Kahoot (virtual game) and Bingo (classroom game). In this regard, children might consider effective to incorporate games in their EFL classes to learn grammar.

Finally, the participants mentioned games in EFL classes help them to be focused on the topic they are studying. It is an interesting fact that needs to be taken into account for Language teachers who sometimes implement games in their classes as time fillers or warm-ups. In this sense, games can also be used as learning and engaging activities which help students learn English grammar.

Limitations and recommendations for further research

The present research showed that games affect grammar learning positively. Also, it seems that games have a significant effect on motivation. Nonetheless, there are some limitations in this study. One of these could be the number of participants. It would be better if the strategy could be implemented with a larger number of participants who belong to different age groups; in this way, results could be generalized to a larger context. In addition, the time elapsed between the pre- and the post-test must be longer since students can memorize the questions and answers and the results would not reliable. Besides, in further investigations, it might be useful to research which types of games are more effective and useful in grammar learning in EFL classes, what kinds of games would be the most appropriated in each class, and which age groups are more enthusiastic while playing games and learning.

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