

THE EFFECTIVENESS OF USING QUIZIZZ APPLICATION IN TEACHING AND LEARNING ENGLISH GRAMMAR

Do Hang Uyen Thy

The University of Khanh Hoa

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Received:	30/11/2022	Grammar plays an important role in second language learning process. How to make grammar teaching and learning interesting and effective is a great concern of many teachers. Therefore, the research was carried out to investigate the effectiveness of Quizizz application and the attitudes of students towards using Quizizz application in grammar learning as well. This experimental research was conducted in eight-week intervention of the academic year 2021-2022. The participants included sixty two first-year English majored students at Khanh Hoa University. Grammar test based on the curriculum and the close-ended questionnaire were employed as data collection instruments to determine their grammar achievement as well as perspectives towards the implementation of Quizizz application. The results show that this application has a positive effect on students' learning outcomes, and they have positive attitudes towards this method. Therefore, it is suggested that EFL teachers should consider applying Quizizz application in grammar periods to help students learn grammar better.
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NGHIÊN CỨU TÍNH HIỆU QUẢ VIỆC SỬ DỤNG ỨNG DỤNG QUIZIZZ TRONG DẠY HỌC NGỮ PHÁP TIẾNG ANH

Đỗ Hàng Uyên Thy

Trường Đại học Khánh Hòa

THÔNG TIN BÀI BÁO	TÓM TẮT
Ngày nhận bài: 30/11/2022	Ngữ pháp đóng một vai trò quan trọng trong quá trình học ngôn ngữ. Làm thế nào để việc dạy và học ngữ pháp trở nên thú vị và hiệu quả là mối bận khoăn, trăn trở của nhiều giáo viên. Vì vậy, nghiên cứu này được thực hiện nhằm khảo sát tính hiệu quả cũng như thái độ của người học trong việc sử dụng ứng dụng Quizizz trong các giờ học ngữ pháp. Nghiên cứu thực nghiệm này được thực hiện 8 tuần trong năm học 2021-2022. Đối tượng khảo sát bao gồm 62 sinh viên chuyên ngữ năm nhất trường Đại học Khánh Hòa. Dữ liệu được thu thập qua các bài kiểm tra ngữ pháp dựa trên chương trình học của sinh viên và phiếu điều tra với các câu hỏi kín. Kết quả nghiên cứu cho thấy rằng ứng dụng Quizizz có ảnh hưởng tích cực đến kết quả học tập của sinh viên, đồng thời họ cũng có những phản hồi tốt đối với phương pháp này. Do vậy, tác giả nghiên cứu khuyến nghị giáo viên nên xem xét sử dụng ứng dụng này trong giờ ngữ pháp để việc học ngữ pháp của sinh viên hiệu quả hơn.
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Email: dohanguyenththy@ukh.edu.vn

1. Introduction

English has become an officially international language. The competence of using English, hence, is one of the prerequisite conditions of a developing nation like Viet Nam to be able to integrate into international market economy. Therefore, learning English has become the general tendency not only for people of all ages and professions.

It is assumed that most of the English textbooks are designed in attempting to accommodate to the expectations of the communicative syllabus. However, it does not mean that teaching and learning grammatical structures are neglected. Together with teaching and learning listening, speaking, reading and writing, teaching and learning English grammar is also an essential part of foreign language teaching. Fadhilawati [1] argues that Learning Grammar is very important for the students in order they can speak and write English appropriately. Similarly, Ur [2] puts it, "You cannot use words unless you know how they should be put together". Also, there are many different definitions of grammar. According to Cambridge Advanced Learner's Dictionary, grammar means the study or use of the rules about how words change their form and combine with other words to make sentences. Harmer [3, p.5] stated that when the teacher introduces a new piece of grammar, he/she must "teach not only the form, but also one of its functions, and not only the meaning but also use". Similarly, Doff [4, p.10] agreed that the teacher should "show what the structure means and how it is used, by giving examples; and show clearly how the structure is formed, so that students can use it to make sentences of their own" when presenting a structure so that students can use the language they learn successfully in the real situation. Generally, grammar teaching is essential for language learning [5].

Though how important it is, teaching and learning grammar is not always easily implemented. In contrast, practically, it has engaged many teachers and students in great challenges. Many teachers find it difficult to convey a certain grammatical point as well as get students involved in the content of the lesson. Students feel tired, bored, demotivated or become passive receivers of English knowledge with the traditional style of teaching grammar. Furthermore, the implication of grammatical points into the daily situations or contexts is much more difficult. Many students, when asked to make a sentence using the grammar points they have studied or make conversation with their partners, show embarrassment, confusion because of not being able to do those requests. Therefore, how to teach and learn English grammar effectively is a matter to take into consideration today. Actually, any presentation of any grammatical structure called "successful" only when showing students its rule, meaning, usages in specific situations by providing illustrative examples or role-plays, and simultaneously stimulating their excitement, enthusiasm in grammar periods. In order to create motivation for teaching and learning environment as well as improve students' grammar achievement, using Quizizz application in grammar teaching and learning is strongly believed to be feasible.

Quizizz application is one of educational applications that applies the concept of gamification. It has some interesting characteristics such as: avatars, music, leaderboard, and theme that make the students learn something like they are playing game [6]. Furthermore, Zuhriyah and Pratolo [7] argue that Quizizz application can provide the students with interactive and exciting experience of doing exercise, especially to answer the questions. After the students answer the question, Quizizz automatically presents the memes to inform if their respond is correct or not. Furthermore, Zhao [8] states that Quizizz application is an educational game-based software that takes interactive activities into classrooms and provides the students with enjoyable learning experience. In this case, the students can do the exercises of the materials that they have learned on their laptop, iPad, smartphone or other electronic devices, they can have a healthy competition in doing the quiz with their friends because Quizizz complete with the leaderboard to show the rank of the students lively. Additionally, according to Zhao [8], when students finish the quiz, the teacher can download the summary to find out the success of their students. Moreover, Quizizz application can attract their attention, interest and enhance their community relationships [9]. Besides, Aşıksoy and Sorakin

[10] stated that Quizizz application can enhance the students' learning achievement and help them to reduce their learning anxiety. However, in many real cases witnessed, for some reasons, the use of Quizizz application in English grammar periods is not adequately concerned or properly carried out, while the effect of this kind of teaching aids is undeniable.

What is more, though there exist many researchers about the field of teaching grammar, no specific studies on using Quizizz application in teaching and learning grammar to the first-year English majored students at Khanh Hoa University have been found. Thus, it is my hope that this study can partly help the teachers and students at this school find out the interesting and effective technique to teach grammar.

Last but not least, I have been trained to be a teacher of English and my personal point of view is that one of the heavy duties of an English teacher is how to teach students not only to remember the structures but also to be able to produce English sentences accurately and actively participate in the lesson. Moreover, it is Khanh Hoa province that I am working and this is also the place where I was born and grow up. This research, therefore, is conducted as my modest contribution to schools there and also puts the deep foundation for my further study in the aspect of methodology in which I am interested.

All the reasons mentioned above have inspired me to carry out the study "The effectiveness of using Quizizz application in teaching and learning English grammar". The study is conducted with two main purposes: (1) to investigate the effectiveness of using Quizizz application in teaching certain English grammar points on the students' learning, and (2) to ascertain students' attitudes towards using Quizizz application in grammar lessons. To obtain the above aims, the study addresses the two following research questions:

- 1) How teaching grammar with Quizizz application affects students' grammar achievement?
- 2) What are the students' attitudes towards using Quizizz application in teaching grammar at Khanh Hoa University?

2. Methodology

2.1. Research design

In order to examine the effectiveness of utilizing Quizizz application in teaching English grammatical points, the research followed a quasi-experimental study design in the form of pretest-posttest control group. The design of the research is displayed in Figure 1.

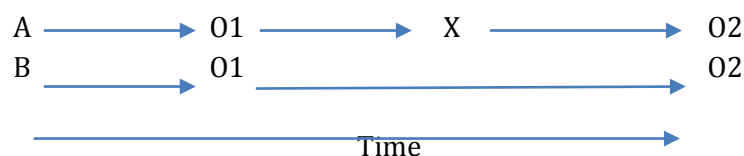


Figure 1. Design of the research

A= experimental group, B=control group, O1=pre-test, O2=post-test, X= treatment

2.2. Research sites and participants

Sixty two first-year English majored students at Khanh Hoa University participated in this study. They were all the age of eighteen and had compulsorily learned English for at least seven years at school. They were randomly divided into two groups, the control and the experimental group whom the researcher was in charge of teaching. This selection was based on the students' equivalent in English language proficiency.

The study was conducted in 8 weeks from the middle of October 2021 to the middle of December 2021.

Before the treatment, all preparations were carefully made. First of all, five grammatical points in the curriculum of English grammar were chosen to teach namely nouns, articles, adjectives, adverbs

and pronouns. The grammar points were taken from the textbook "Understanding and Using English Grammar" by Betty Schramper Azar. Secondly, the five grammar lessons were planned in two different methods. The experimental group was taught with the application of Quizziz. They practiced the grammar exercises on Quizziz application on their digital devices such as laptop, mobile phone, or tablet. In contrast, the control group did not receive the research treatment. They were taught the new points through the traditional method of using paper-based activities.

2.3. Research instrument

Grammar tests were employed to collect data in this study. The researcher developed the pre- and post-tests for the control and experimental groups with the same language content and in the same matrix. Moreover, the tests were constructed in order to meet the criteria of validity and reliability tests. The test was designed with grammar points presented in the textbook to evaluate how well students could master. The test tasks such as multiple-choice items, error correction items, completion items, transformation items and sentence building-up items were employed.

Furthermore, the questionnaire was designed with closed-ended questions to get specific aspects of the issue. When designing the closed-ended questions of the questionnaire the researcher used the five-point Likert's scale ranging from 1 (strongly disagree) to 5 (strongly agree). The questionnaire consisted of two main parts. The first part was designed to know personal information about the participants in the experimental group such as ages, genders and a period of time of learning English. The second part included ten items, which was designed to collect data on the learners' attitudes towards grammar lessons with the use of Quizziz application. In this part, the author exploited students' opinions around the following aspects: the preference of using Quizziz application in grammar lessons and the students' attitudes towards the usefulness of Quizziz application for learning grammar.

2.4. Data collection and analysis procedures

At the beginning of the treatment period, the researcher distributed the pre-tests to all participants of the two groups to examine their equivalence in their English proficiency. Then came the process of teaching and learning. Both classes studied the same grammatical points. The only difference was the strategy taught to them. After more than two months, two classes finished the process of learning. The participants spent forty-five minutes completing the tests. The tests were scored carefully and the total mark for both pre- and post-tests is 10 marks. In order to investigate the effectiveness of using Quizziz application in teaching grammar, the t-test was applied for assessing the significant of the mean difference. The researcher calculated and analyzed the data based on the learners' scores on the pre- and post-tests in the experimental and control groups. Besides, the statistical data was analyzed through Microsoft Excel and SPSS software.

In terms of the student questionnaire, it was distributed to the treatment group to examine learners' attitudes and their evaluation about the effectiveness of using Quizziz application in teaching grammar afterwards as well. With the purpose of making the results of the questionnaire more reliable, the researcher tried to explain the items so that all participants could understand all the requirements of the questionnaire before finishing them. Then, the respondents submitted them to the researcher after completing the questionnaire in fifteen minutes.

Based on the data collected, an analysis and comparison to consider the change in results of the two groups were carried out after applying the two different ways of teaching grammar.

3. Results and discussion

3.1. Results

To investigate the effectiveness of using Quizziz application in teaching grammar, the t-test was utilized. The author calculated and analyzed the data based on the students' scores on the pre- and post-tests in the experimental and control groups. The illustration of data analysis and interpretation was presented below.

Table 1. Summary of pre-test results

Group	Control	Experimental
N	31	31
M	6.06	6.21
SD	1.69	1.81
Mean difference		0.15
t statistics		-0.33
t-critical		2.00
Degree of freedom		60

As shown in Table 1, the means of the control and experimental groups were 6.06 and 6.21 respectively which revealed that the results of the pre-test of the two groups revealed that the mean of the experimental group was slightly higher than the mean of the control group. The standard deviation of the control group was 1.69 and 1.81 for the experimental group. In addition, the value of t statistics was smaller than the value of the t-critical ($0.33 < 2.00$). This indicates that the two groups were quite equivalent in grammatical knowledge before the treatment.

Table 2. Summary of post-test results

Group	Control	Experimental
N	31	31
M	6.26	7.24
SD	1.56	1.41
Mean difference		0.98
t statistics		-2.53
t-critical		2.00
Degree of freedom		60

According to Table 2, the mean of the control group was 6.26, while the mean of the experimental group was 7.24, and the standard of deviation of the control and experimental groups was 1.56 and 1.41 respectively. Furthermore, the table of t-critical with 60 degrees of freedom for 0.05 level showed t-critical of 2.00. The value of t statistics was greater than that of t-critical ($2.53 > 2.00$). This results implies that the experimental and control groups were significantly different at the end of the research period and the null hypothesis of the study is rejected.

In order to raise the persuasiveness for the research, the development within each group was also calculated. Paired t-test analysis was used to examine the differences between the pre-test and the post-test within each group separately. Table 3 presents the results of the paired t-test in the control group and Table 4 shows the results of conducting paired t-test in the experimental group respectively.

Table 3. Summary of Paired T-test of Control Group

Control Group	Pre-test	Post-test
N	31	31
M	6.06	6.26
t statistics		-1.15
t-critical two-tail		2.04
Degree of freedom		30

Table 4. Summary of Paired T-test of Experimental Group

Experimental Group	Pre-test	Post-test
N	31	31
M	6.21	7.24
t statistics		-4.95
t-critical two-tail		2.04
Degree of freedom		30

According to Table 3, it is observed that the value of t-statistics was 1.15. The table of t-critical with 30 degrees of freedom for 0.05 level, showed t-critical of 2.04. The value of t-statistics was smaller than that of t-critical ($1.15 < 2.04$). These results reveal that the difference between the pre-test and post-test in the control group was not significant enough.

Table 4 shows that the value of t-statistics was 4.95. Considering the degree of freedom (30), the t-critical was 2.04 in the table. The value of t-statistics was greater than that of t-critical ($4.95 > 2.04$) which means that the pre-test and post-test were different from each other in the experimental group and this difference was statistically significant.

As mentioned above, the questionnaire was employed to examine learners' attitudes as well as the effectiveness of using Quizziz application in learning grammar. Hence, a large amount of data were collected and the following table will show the response of students towards the use of Quizziz application in learning English grammar.

Table 5. *Students' responses towards the use of Quizziz application (%)*

Item	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Quizziz application have significant effect on students' motivation.	0	0	3.2	35.5	61.3
2	Quizziz application help students concentrate more on the lesson.	0	6.5	0	54.8	38.7
3	Learning grammar through Quizziz application is easy.	0	0	0	48.4	51.6
4	Quizziz application makes the lessons more memorable.	0	9.7	0	58.1	32.2
5	Students are interested in the music in Quizziz application.	0	0	9.7	54.8	35.5
6	Students are interested in the avatar in Quizziz application.	0	0	9.7	54.8	35.5
7	Students are interested in the memes in Quizziz application.	0	0	9.7	54.8	35.5
8	Students are interested in the rank (Leaderboard) in Quizziz application.	0	12.9	0	64.5	22.6
9	Students can reduce their anxiety in learning grammar through Quizziz application.	0	9.7	22.6	51.6	16.1

The result in the first statement indicated that 61.3% of the participants strongly agreed that Quizziz application affect students' motivation and 35.5% of them agreed that, but only 3.2% were neutral. Statement 2 confirmed that the majority of the students (93.5%) said that the use of Quizziz application attract their attention to the grammar period and only 6.5% disagreed that Quizziz application help students concentrate more on the lesson. The analysis of the third statement positively indicated that 51.6% of the respondents strongly agreed and 48.4% agreed that learning grammar through Quizziz application is easy. In statement 4, it is noticed that 32.2% of the participants strongly agreed, 58.1% agreed that Quizziz application can help students memorize the grammatical points more easily, but only 9.7% disagreed with that. Amazingly, in statement 5, 6 and 7, 35.5% of the respondents strongly agreed, 54.8% agreed and 9.7% were neutral that students like the music, Avatar and various memes in Quizziz application. Moreover, statement 8 supported the fact that the majority of the participants (87.1%) stated that they like the rank in Quizziz application. The appearance on the top leaderboard motivated learners to study better, whereas 12.9% disagreed with that. In the last statement, 67.7% of the respondents acknowledged that through Quizziz application, students can reduce their anxiety in learning grammatical structures.

3.2. Discussion

Firstly, from the results of the data analysis, the researcher inferred that the experimental group significantly outperformed the control group. The students in the control group were better

in the field of grammar knowledge but this improvement was not statistically significant. Furthermore, the improvement in the control group is natural because it also received a traditional treatment. However, when the researcher calculated and compared the results of the control group and that of the experimental group, the t-value in the experimental group was greater than the t-value in the control group. Secondly, the information from the questionnaire showed that the participants have positive attitudes towards the use of Quizziz application in learning English grammar. Students are interested in grammar periods when Quizziz application is utilized. Moreover, various memes, music and colorful images in Quizziz application help students have more motivation to learn and it creates a dynamic learning environment. When participating in Quizziz application, students were required to answer questions as quickly and correctly as possible so that they could win the competition, which raised their interest and stimulation in learning grammar. Students do not feel bored in grammar periods. The data showed that students concentrate more on the lesson. Quizziz application can help students remember easily and apply the grammatical points in the real situations. Learning grammar with Quizziz look like playing games, which makes students reduce anxiety and stress. Briefly, the findings from the literature review and this study prove effectiveness of Quizziz application on grammar achievement; therefore, the teacher should apply this strategy into the classroom.

4. Conclusion

The research, finally, finds out the evidence for the benefits of using Quizziz application in grammar teaching and learning. As discussed above, the experimental group outscored significantly than the control group through the mean difference between the pre- and post-tests. Furthermore, based on the results collected, it came to the conclusion that learners have positive attitudes towards the application of Quizziz application in grammar lessons.

Although the research gets certain success, some limitations should be recognized. The first one is about the small size of the sample. Another limitation is the constrain of the time and the limited capability of the author. Finally, the number of the grammatical items taken into the treatment process is quite limited. It is recommended that the same topic should be carried out on a larger scale and more grammar points be included to make the findings more persuasive and general.

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