

The Application of Quizizz Games on Vocabulary Retention of Non-English Majors Students: A Case Study at Thai Nguyen University of Education

Ngô Thị Bích Ngọc*, Trần Thị Nam Phương**

Faculty of Foreign Languages, Thai Nguyen University of Education
Correspondence Author – Ngo Thi Bich Ngoc, leminhngoc2911@gmail.com, (+84) 868319626

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Abstract- The research was conducted at Thai Nguyen University of Education with non-English majored students to investigate the effects of Quizizz games in facilitating students' vocabulary retention and students' attitudes toward the use of Quizizz games in vocabulary learning. The study followed the quasi-experimental research model, with 82 students participated in the control and experimental groups. Data were collected through two instruments including pretest and posttest, and questionnaires distributed after the research period. The analysis of the data showed that the application of Quizizz games was beneficial to students. It made vocabulary learning more effective, increased vocabulary retention, and made the learning more motivating to students. Therefore, it was suggested that Quizizz games should be introduced in EFL classes.

Index Terms- Vocabulary retention, Quizizz games

I. INTRODUCTION

1.1. Rationale

The application of information technology in teaching English can be considered as one of the effective methods to encourage and increase students' interest in learning. The advent of a wide range of devices such as computers, smartphones, internet, social networks, etc. has been creating an endless connection in space and time in the process of teaching and learning in general and English in particular.

Game-based learning apps are tools used in various educational fields to make the learning and teaching process more enjoyable. According to studies in the field of education, computer games provide an enjoyable and comfortable learning environment for students and improve their problem-solving skills (Ebner & Holzinger, 2007)

In the process of learning foreign languages, learning vocabulary is considered a difficult part of language learning for learners, without vocabulary, language cannot be used effectively and no language can stand without words (Meara, 1980). Having an extensive vocabulary will help learners express themselves clearly and communicate well with clarity. Many recent studies show that one of the methods that make teaching and learning English vocabulary more interesting and effective is using available applications on smartphones or tablets. These applications can be flexibly applied in English teaching to support the development of the four skills of listening, speaking, reading, and writing as well as improving pronunciation, vocabulary development and reinforce grammar for learners. However, the use of these applications in teaching English to students of Thai Nguyen University of Education has not yet been noticed, students still face many difficulties in developing skills and especially in increasing students' vocabulary retention. In order to help students at Thai Nguyen University of Education have more tools to practice English in general and vocabulary in particular, the researchers decided to use Quizizz as a kind of game-based learning platform to help students develop their vocabulary retention.

1.2. Aims and Objectives of the Research

This study aimed to develop students' vocabulary retention by using Quizizz as a kind of game-based learning platform. There are 2 main objectives of this study, which can be seen below:

- + to measure the impact of Quizizz games on the students' vocabulary retention.
- + to investigate the learners' attitudes toward the use of Quizizz games in their vocabulary learning.

1.3. Research Questions

The researchers outlined 2 main questions as below:

- i. To what extent does the use of Quizizz games improve the students' vocabulary retention?
- ii. What are the learners' attitudes toward the use of Quizizz games in their vocabulary learning?

1.4. Scope of the research

This study was conducted at Thai Nguyen University of Education, Viet Nam and the research was done in the first-year semester of the academic year 2021-2022.

1.5 Significance of the research

The findings of this study were extremely important for the first-year students because they provided them a new way for improving their vocabulary retention by using vocabulary games. Furthermore, the findings were important to English teachers because they revealed the value of a new way for their students' vocabulary learning.

II. LITERATURE REVIEW

2.1. Vocabulary

Hornby (1995) defined vocabulary as "the total number of words in a language; vocabulary is a list of words with their meanings"(p.133). The way to look at vocabulary is similar to McCarthy (1990) who views vocabulary of a language as the words of that language, which is "a freestanding items of language that has meaning". Vocabulary can be defined as "the words of a language, including single items and phrases or chunks of several words which convey a particular meaning, the way individual words do" (Lessard-Clouston, 2013).

Hiebert and Kamil (2005) defined vocabulary as "knowledge of the meanings of words" that comes in at least two forms: oral and print. When speaking or reading orally, oral vocabulary refers to a set of terms for which individuals know the meanings. While writing or reading silently, print vocabulary consists of those words for which the meaning is known.

According to Nation (2001), word knowledge can be divided into productive vocabulary which focuses on the words that a person selects to use while speaking and writing and receptive vocabulary which concentrates on the ability to understand a word when it is heard or seen. Similarly, Thornbury (2002) explained that basically knowing a word means knowing its form and meanings, including the knowledge of spoken and written form, the grammatical behavior, derivations, collocations, register, connotations, word's frequency, and meanings.

According to Harmer (2007, p.229), it is necessary for learners to learn a word in context to see how it is used. He also stated that it is essential for learners to learn both meaning and form of a new word and these aspects of a word should be presented in close conjunction in order to ensure a tight meaning-and-form fit.

The critical role of vocabulary in language learning has been widely acknowledged by a number of researchers. According to Wilkins (1972), "without vocabulary, nothing can be conveyed while Lewis (1993) stated that vocabulary is "the core or heart of language". Therefore, promoting vocabulary learning has been a sustainable goal emphasized by any English training program, especially at basic levels.

2.2. Technology in language learning

Using information technology has become an important part of the learning process in and out of the classroom. According to Bull and Ma (2001), technology provides unlimited resources for learners. Harmer (2007) and Genç İter (2015) emphasize that teachers should encourage learners to find appropriate activities through the use of computer technology to succeed in language learning. Also, according to Harmer (2007), computer-based language activities can enhance collaborative learning among learners and can provide learners with the fastest information and provide them with relevant materials.

According to Traore and Kyei-Blankson (2011), the use of technology can motivate learners to learn vocabulary as highly

interactive technological learning materials are able to engage learners in learning. Learning activities are enhanced and enriched through the use of technology in the language classrooms. Traore and Kyei-Blankson (2011, p. 563) added that the use of technology gives the learners a “sense of freedom, motivation and encouragement they need for learning”.

2.3. Quizizz games in vocabulary learning

In recent years, educational apps have been used extensively in higher education such as Kahoot, Quizizz. These apps enable students participate in class activities by using their own mobile phones or computers.

Being a game-based educational app, Quizizz brings multiplayer activities to classrooms and makes in-class exercises interactive and fun. According to Hamel (2016), Quizizz allows all students to practice together as they use computers, smartphones or tablets. Quizizz creates excitement for players by providing a game show-style review game that puts the entire experience in the hands of learners. Besides, Quizizz is a free tool that allows teachers to quickly turn practice activities into fun activities with many players. This tool also allows learners to access from various devices such as mobile phones and computers without the need for a username or password. To be able to participate, learners simply need to visit the Quizizz website, enter the game code provided by their teacher, and start playing. Teacher can keep track of the process and, once the quiz is completed, teacher can download the report to assess students' performance.

Quizizz can be considered as a fun way for learners to review their vocabulary and recall events from the game. It might help students remember the language associated with it as well as draw students' attention and increase their participation in the teaching and learning process.

III. RESEARCH METHOD

This study was designed according to experimental research. Participants of the study were divided into control and experimental group, each of which was a class with 41 first-year students. The former group received no special treatment while Quizizz games were used for vocabulary learning of the later one in the period of 15 weeks. In the study Pre-test and Post-test were used by the researchers. The former was provided to both groups before the experimental group received the treatment. At the end of the research period, a posttest was given to both groups to collect data for analysis. Questionnaires after the application of Quizizz games were also distributed to students in experimental group to collect their opinions towards vocabulary learning after Quizizz games were used.

IV. FINDINGS AND DISCUSSION

The results of the study collected from two types: pre-test and post-tests; questionnaires are summarized as followings

4.1. Pre-test and post-tests results

4.1.1. Pre-test results

Table 1 and 2 below compare two different groups, namely CG (Control Group) and namely EG (Experimental Group) in terms of the differences in pre-test results

Table 1. Pre-test results of the Control group

	N	Minimum	Maximum	Mean	Std. Deviation
Pre-test	41	1.50	4.00	2.8659	.78282
Valid N (listwise)	41				

Table 2. Pre-test results of the Control group

	N	Minimum	Maximum	Mean	Std. Deviation
Pretest	41	1.00	4.00	2.8049	.74898

	N	Minimum	Maximum	Mean	Std. Deviation
Pretest	41	1.00	4.00	2.8049	.74898
Valid N (listwise)	41				

It can be seen that the average score of the pre-test in CG was 2.8659 with a standard deviation of 0.78282 and that of the EG was 2.8049 with a standard deviation of 0.78282. The similarity of the test results implied that the two groups' vocabulary retention were the same before Quizizz games was employed to vocabulary learning.

4.1.2. Post- test results

As can be seen from the tables below, either with or without treatment, both groups achieved some improvement over a period of time. Significantly, the EG achieved better results than those gained by the CG. In the pre-test, the minimum and maximum scores of the two groups were not distinctly different. To be more specific, the lowest scores were 1.5 and 1.0, respectively, for the control and experimental group, while the maximum scores were both 4.0. However, for the post test, it is recognizable that the figures for both the minimum and maximum scores of the EG were higher than those of the CG. While the minimum and maximum scores of the experimental group were in turn 5.0 and 9.0, the figures for the control group were 4.5 and 7.5.

Table 3. Post test results of the Control group

	N	Minimum	Maximum	Mean	Std. Deviation
Post-test	41	4.50	7.50	5.8171	.67783
Valid N (listwise)	41				

Table 4. Post test results of the Experimental group

	N	Minimum	Maximum	Mean	Std. Deviation
Post-test	41	5.00	9.00	7.1951	.95445
Valid N (listwise)	41				

The tables also indicates that after the treatment with the use of Quizizz games, the average score by the experimental and control group were 7.19 and 5.81, respectively. It is recognizable that in the post test, the experimental group's average score was significantly higher than before. This result indicated that the intensive use of Quizizz reflected positive impact on students' vocabulary learning.

4.2. Findings from the questionnaires with the experimental group

To capture students' interest towards the use of the Quizizz games in vocabulary learning and the benefits they got from the application of the app in their classroom, the post-intervention questionnaires were applied. Table 5 depicts students' attitudes towards vocabulary learning through the use of Quizizz games. After the treatment, it was recognizable that students' attitudes towards vocabulary learning were mostly positive. More students found Quizizz games are very interesting (58,5%) and interesting (29,3%). Only a total of 12% students found that the use of Quizizz games was slightly interesting (12.2%).

Table 5. Students' interest towards the use of the Quizizz games in vocabulary learning

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	12.2	12.2	12.2
	4	29.3	29.3	41.5

5	24	58.5	58.5	100.0
Total	41	100.0	100.0	

According to Table 6 below, the number of students who strongly agreed and agreed that Quizizz games help them learn words easily accounted for 58,5% and 31,7% respectively which is the largest proportion of the chart. In contrast, the data for those who acknowledged that they partly agreed with the benefits of Quizizz was lower, at 9,8%. The result also indicates that that most students perceived Quizizz games as a useful tool in learning English vocabulary.

Table 6. Students’ opinions about the effectiveness of using games in memorizing words

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 3	4	9.8	9.8	9.8
4	13	31.7	31.7	41.5
5	24	58.5	58.5	100.0
Total	41	100.0	100.0	

When being asked about the frequency of words used after doing quiz on Quizizz on developing students’ skills of reading, listening, speaking and writing, 35 out of 40 students (accounting for 85.4%) completely agreed and agreed that Quizizz games had positive effects on developing their language skills.

Table 7. Students’ opinions about the frequency of words used after doing quiz on Quizizz on developing students’ skills of reading, listening

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 3	6	14.6	14.6	14.6
4	12	29.3	29.3	43.9
5	23	56.1	56.1	100.0
Total	41	100.0	100.0	

The results of this study were quite consistent across a number of previous studies to the point that over 80% of the participants of this research also shared the opinions that Quizizz games should be used for practising language skills because it helps to stimulate extrinsic and intrinsic motivation in EFL learners.

Table 8. Students’ opinions about the use of Quizizz games on developing skills of reading, listening, speaking and writing

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 3	7	17.1	17.1	17.1
4	9	22.0	22.0	39.0
5	25	61.0	61.0	100.0

Table 8. Students’ opinions about the use of Quizizz games on developing skills of reading, listening, speaking and writing

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	7	17.1	17.1
	4	9	22.0	39.0
	5	25	61.0	100.0
Total	41	100.0	100.0	

The study highlights the key point that due to the application of Quizizz games, students in the experimental group achieved much better results compared to those in the control group who did not received any treatment. This fact implied that Quizizz games had positive effects on students’ vocabulary learning.

The data analysis has shown that at first, students in both control and experimental group were at the similar level of vocabulary. However, after 15 weeks of research period, only experimental group who received special treatment under the implementation of Quizizz games made significant changes in the results. Quizizz games, therefore, was considered not only a way to practising vocabulary but also a form of entertainment for a number of students and the majority of the students in the experimental group would like to use Quizizz games for developing their language skills.

V. CONCLUSION AND RECOMMENDATIONS

This study investigates the impacts of Quizizz games in developing the first-year students’ vocabulary learning as well as students’ attitudes toward the use of the technique in vocabulary learning. Findings from the data collected showed that Quizizz games were effective. After the research period, students in the experimental groups found that the use of Quizizz games made vocabulary learning more interesting to them.

Based on the findings of the study, the following recommendations are suggested:

1. There should be greater focus on the effectiveness of Quizizz in developing English language in general and EFL vocabulary learning in particular.
3. More interest should be given to gamification’s Apps, digital games and gamified online quizzes that offer the EFL students more practice in a fun and interesting atmosphere..

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