



Combination of photos, definitions, and fill-in-the-blank tasks in Quizlet: a concern about learning academic vocabulary in online listening classes

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Abstract

The role of vocabulary has been proven to be crucial in learning both receptive and productive skills. However, in terms of listening skills, students may face enormous challenges in comprehending the content of a listening passage and, therefore, fail to take notes. This study aimed to investigate the impact of using Quizlet more creatively in the vocabulary section of online academic listening classes. Participants were 62 intermediate-level students from two online academic listening classes, divided into a control and an experimental group. While students in the control group did the tasks in their books or handouts from the teacher, those in the experimental group used Quizlet for eight weeks. A mixed method with t-tests and questionnaires was applied in this research. Results from t-tests revealed that students in the experimental group had better performance in remembering the definition of vocabulary they had learned and using correct vocabulary to fill in the blanks in sentences. Findings in questionnaires supported the improvement in the post-test that the students in the experimental group showed a high level of concentration, engagement, and excitement in class. The study's outcome sheds light on further research on using Quizlet in EFL classrooms.

Keywords: learners' concentration; learners' engagement; learners' excitement; mixed method; Quizlet application; vocabulary development

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Introduction

In English learning, learners are expected to be competent in various aspects and skills, among which vocabulary has been proven to be one of the most prominent constituents. Nation (2016) has affirmed that vocabulary is essential in mastering other English skills. According to Uchihara and Clenton (2020), vocabulary is crucial in achieving communication goals. However, vocabulary teaching and learning have been deemed challenging for both EFL teachers and learners since there has been an insufficient emphasis placed on vocabulary teaching in EFL classes over the years (Mansourzadeh, 2014). There is no exception to Vietnamese education, in which research has shown a general limitation of learners' vocabulary knowledge (Vu & Nguyen, 2019). As found in a study by Dang (2020), more than 90% of college students with English majors did not master the most frequent 2000 English words after many years of instruction. Therefore, how to develop effective methods and techniques in teaching vocabulary, especially helping college students have more frequent use of academic vocabulary, still exists as a concern to researchers and scholars.

With the implementation of technology as a medium for enhancing vocabulary learning, various studies on Computer-Assisted Language Learning (CALL) and Mobile-Assisted Language Learning (MALL) have affirmed the positive influence of technology on vocabulary learning (Alhadiah, 2020; Çakmak et al., 2021; Kingsley & Grabner-Hagen, 2018; Vu & Bui, 2021; Vu & Bui, 2022). Among these, Quizlet, which has been receiving a lot of attention lately, is an educational, web-based, and mobile application on which users can learn vocabulary via flashcards and interactive games. The use of Quizlet in vocabulary learning has been proven effective and stimulating thanks to its set of different features (Lander, 2016; Sari et al., 2020). Though there has been a considerable amount of research on Quizlet, most of them emphasize the effectiveness of the application in vocabulary learning in general, and only a few

focus on the university students' perception of its use of it, especially in listening classes. This study attempted to explore the influence of the combination of photos, definitions, and fill-in-the-blank tasks in Quizlet on learning academic vocabulary in online listening classes.

In recent years, various research studies have been carried out to prove the role of vocabulary in learning English. Vocabulary is considered a meaning carrier of a language employed to facilitate other skills (Schmitt & Schmitt, 2020). Nan (2018) claims that there has been a close relationship between vocabulary learning and learners' reading comprehension and communicative proficiency. Thornbury (2002) also argues that learners will not be likely to make much improvement if they focus on studying grammar; learning more vocabulary will allow them to make more significant progress in their English language acquisition. Overall, vocabulary learning is considered the prerequisite that helps facilitate the comprehension of other forms of a language.

Quizlet is an online learning tool enabling people to design and study flashcard sets with various game-based learning features (Toy & Büyükkarci, 2019). As Quizlet shows excellent potential in vocabulary learning, plenty of research has been conducted to testify to the effectiveness of the application. Cinar and Asim (2019) examined the impact of Quizlet on Secondary school students' vocabulary retention by asking the experimental group to use Quizlet after class for revision and practice. The study found that the students who used Quizlet received higher scores on the test. They affirmed that Quizlet had significantly contributed to the student's vocabulary learning and should be utilized as a medium for teaching English vocabulary at school. Another study by Ta and Nguyen (2020), dealing with 29 young learners aged 7 to 8, illustrated the same findings that students' post-test results had notably improved after the employment of Quizlet. They indicated that it helped enhance learners' vocabulary retention and practice pronunciation and spelling.

Similarly, Dizon's (2016) study focused on the impact of Quizlet on students' performance by examining nine high-school-level students in a 15-week course. The students were instructed to use the Quizlet set as a learning activity in the first ten minutes of every class. The findings demonstrated that Quizlet improved students' vocabulary and that students positively perceived the employment of Quizlet in the class, which triggered their eagerness to study on the app off-class. In a quasi-experimental study, Setiawan and Wiedarti (2020) reported that using Quizlet helped learners have greater motivation for English learning.

Even though there have been copious studies on Quizlet, there needs to be more research on aspects such as students' attitudes toward the application in learning vocabulary at the university level regarding its effectiveness, excitement

trigger, engagement, etc., particularly in the Vietnamese context. Therefore, conducting a study exploring the effects of using the combination of tasks in Quizlet to help students improve their academic vocabulary range in listening classes lies in rising demand. The research questions (RQs) were therefore formulated as follows:

- (1) Does the integration of Quizlet with the combination of photos, definitions, and fill-in-the-blank tasks positively impact the students' vocabulary learning in listening classes?
- (2) What are students' perceptions of the treatment regarding concentration, engagement, and excitement in listening classes?

This study provided several practical contributions, such as considering the pros and cons for teachers to implement the Quizlet application in EFL listening classrooms.

Method

Research design

A mixed method was employed in this research. The quasi-experimental study model with a control group and an experimental group was used since it was impossible to give the random assignment of participants to groups due to the school policy (Creswell & Creswell, 2017). T-tests were conducted to examine whether the treatment caused any changes in the students' performance in the experimental group. The questionnaires in the form of the Likert scale and open questions were used to investigate the degree of agreement and the students' attitudes and beliefs (Creswell, 2012; Dörnyei & Taguchi, 2009) towards students' concentration, engagement, and excitement in class.

Participants

A total of 62 students at the intermediate level from two online academic listening classes were invited to participate in this study. They were required to achieve an IELTS score of at least 5.5 to study this course. After getting approval from the dean of the School of Languages and all the students in these two classes, we asked students to take the vocabulary pre-test. The test consisted of two main parts: choosing the suitable definition for the bold word in the statement and choosing the most appropriate word(s) to fill in the blank. The test was graded on a scale of 100. The descriptive statistics of the pre-test is shown in Table 1.

Table 1*Descriptive statistics of the pre-test*

Variable	N	Mean	Min	Max	St Dev.
Pre-test C	31	58.71	40.00	76.00	10.30
Pre-test E	31	58.65	40.00	76.00	8.59

Note. Pre-test C stands for the pre-test of the control group; Pre-test E stands for the pre-test of the experimental group.

Based on the pre-test data, students were assigned to the control group (n=31, M=58.71, SD=10.30) and the experimental group (n=31, M=58.65, SD=8.59). As shown in Table 1, the mean scores between the two groups were not significantly different ($p=0.954>0.05$). This similarity contributed to ensuring the internal validity of the study.

In addition, factors related to gender and age were also considered. However, due to the priority of the mean score, it was impossible to choose an equal number of males, females, and age range for the control and experimental groups (Table 2).

Table 2*Demographics of the participants*

	Control group	Experimental group
Gender:		
Male	6	7
Female	25	24
Age:		
17	11	13
18	20	18

The teacher for the control and experimental groups was one of us. We, as a teacher, were in our 40s and had more than 20 years of teaching experience in English for different ages and levels and more than 12 years teaching academic English at university.

Procedures

This research was conducted over eight weeks under the permission of the dean of the School of Languages. In the first week, the students were asked to sign the consent form for agreement to join the research in class and were asked to take the pre-test. After that, students were oriented with the course content, class rules, ways to study, and assessment methods. Both classes learned online through Zoom once a week for three periods of fifty minutes each. Students in

two classes studied with the same teacher, following similar lesson stages, dealing with similar content of the course book, and receiving identical types of assessments.

However, while students in the control group did the tasks in their books or handouts from the teacher, those in the experimental group participated in Quizlet in the controlled practice. In certain phases of the lesson, students were allowed to experience Quizlet Live, which was available only in the paid version of Quizlet. With Quizlet Live, students could participate in collaborative, in-classroom games designed to help students practice both hard skills and soft skills. Regarding the homework vocabulary revision stage, students in the control group were required to use the course book or handouts. In contrast, those in the experimental group were provided with Quizlet sets that integrated photos, definitions, and fill-in-the-blank sentences to review the meaning and context. They could even test themselves using different features available in the Quizlet sets. As students in the experimental group had to deal with Quizlet and Quizlet Live, instructions on how to play, learn and test themselves were introduced right on the first day of the course. After eight weeks of applying the treatment, the students of both groups did the post-test with a similar format and number of questions as the pre-test. The questionnaires via Google Forms were then sent to the students in the experimental group after finishing the post-test. A framework for teaching vocabulary in control and experimental groups is shown in Figure 1.

Data Collection

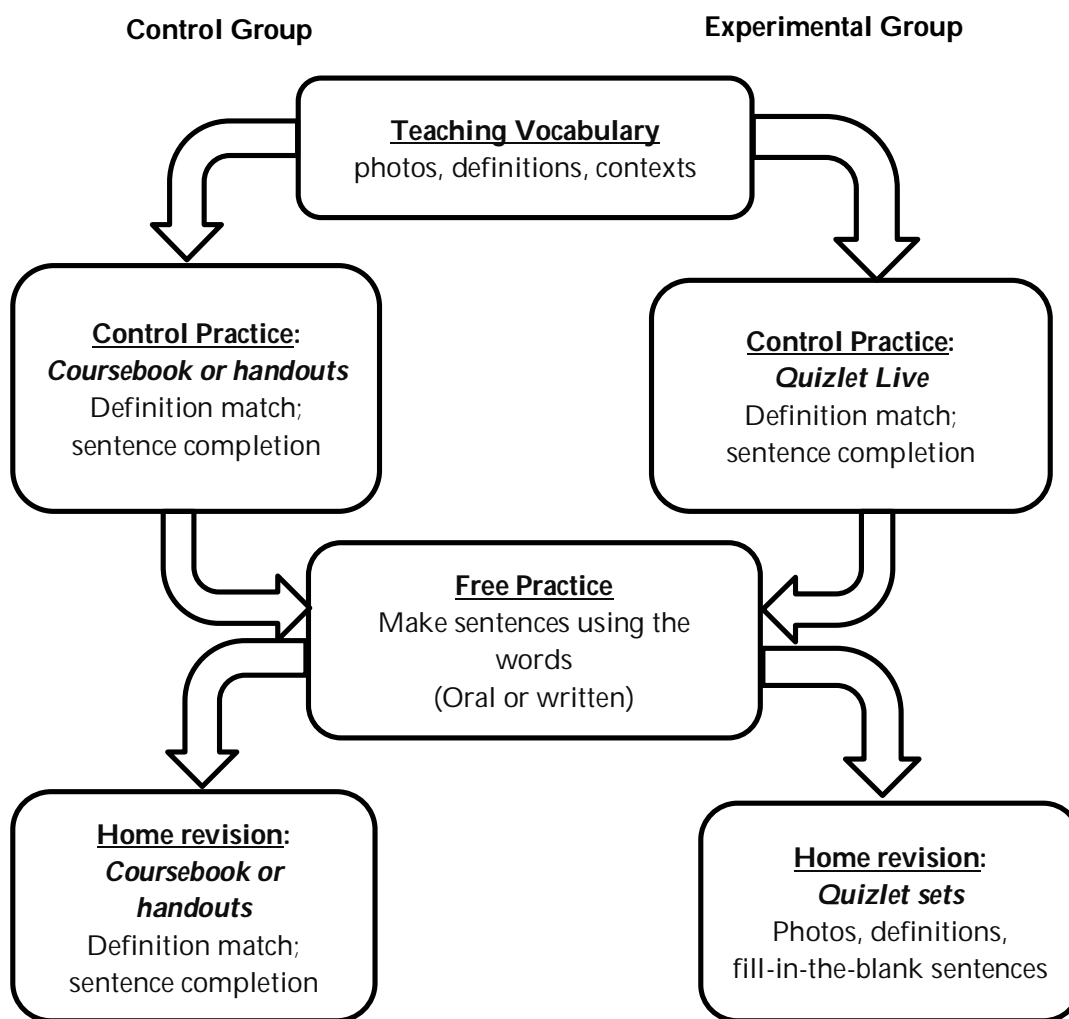
Following Taherdoost (2016) concept of validity and reliability of the research instrument in aspects of criterion validity, face validity, content validity, and construct validity, the two primary tools utilized in this research study include t-tests and questionnaires.

The vocabulary pre-test and post-test had a similar number of questions (50 questions) and formats, which consisted of two main parts (match the suitable definitions with the given words and choose the best word choice to fill in the blanks). The vocabulary tested was extracted from the vocabulary list of the first four chapters of the coursebook. The tests were conducted via Google Quiz and graded automatically on a scale of 100. These features of the tests reflected the aspects of test validity. The general format and test items established face validity since the tests showed students that each of the measuring items matched the concept of testing vocabulary (Bolarinwa, 2015). The features indicated content, construct, and criterion validity since the test items responded well to the knowledge areas to be tested (Taherdoost, 2016). Furthermore, the results of the

tests concretely showed the extent to which participants mastered the required vocabulary (Taherdoost, 2016).

Figure 1

A framework for teaching vocabulary in the control and experimental groups



We checked the students' responses randomly to ensure no errors in grading the quizzes. In addition, before the launch of the tests, they were sent to another lecturer for a quick content and grammar check. Also, they were sent to other academic listening classes to pilot to check the validity and reliability of the tests. The pilot test was an attempt to check the reliability of the tests (Bolarinwa, 2015).

The questionnaires were designed using Google Forms. The first part of the questionnaires included seven questions on the Likert scale to study students' perceptions towards the implementation of this new mode of learning

vocabulary because this type of question was reported to be highly reliable and comprehensible by participants (Taherdoost, 2019). Open-ended questions, as opposed to closed-ended ones like the Likert-scale questions, might encourage respondents to provide insights about personal perspectives that we did not anticipate, contributing to a more open sharing of information when the issue is critical or referring to personal affairs (Allen, 2017). Therefore, two open-ended questions about the advantages and disadvantages of using the treatment were added at the end of the questionnaires. The questionnaire was sent to students through the QR code, and we observed the Google Sheets to ensure that all 32 students did the survey and no students submitted the survey more than once. The questionnaire items are shown in Appendix.

Data analysis

After the data were collected, the quantitative data were analyzed descriptively. Regarding the t-tests, scores were added to Minitab 19 to analyze the descriptive statistics for both groups. The mean values, p values, and standard deviation were examined to explore the significant differences between the pre-test and post-test in the same groups and between the post-tests in the two groups after the treatment. In terms of the questionnaires, the data from Likert-scale questions were extracted from Google Sheets and transferred to Minitab 19 to calculate Cronbach's alpha value. The results of each Likert-scale item were transformed into percentages to ease the procedure of analyzing the level of effectiveness, concentration, engagement, and excitement. Finally, responses from the two open-ended questions were examined from the extracted Google Sheets. Similarities of the responses from participants were considered. We cross-checked the data collection results to ensure the findings' correctness and validity.

Findings

This section presents the results from the pre-tests, post-tests, and questionnaires to examine whether students in the experimental groups achieved better performance in the post-test and expressed positive perceptions toward the new learning mode.

The impact of the integration of Quizlet on students' vocabulary achievement

Findings from the paired sample t-tests of the control group reported that students in the control group significantly improved their vocabulary test scores after eight weeks (Table 3).

Table 3

Descriptive statistics of the paired sample t-tests of the control group

Variable	N	Mean	Min	Max	St Dev.
Pre-test C	31	58.71	40.00	76.00	10.30
Post-test C	31	74.97	54.00	88.00	8.45

Results from the paired sample t-tests of the experimental group revealed that students in the experimental group achieved much higher performance in their vocabulary test scores after eight weeks of integrating Quizlet into the process of learning vocabulary (Table 4).

Table 4

Descriptive statistics of the paired sample t-tests of the experimental group

Variable	N	Mean	Min	Max	St Dev.
Pre-test E	31	58.65	40.00	76.00	8.59
Post-test E	31	85.81	74.00	100.00	8.22

The results of the t-tests revealed a significant difference in the post-test scores between the control and experimental groups. The participants in the experimental groups performed much better than those in the control group, with mean scores of 85.81 and 74.89, respectively. Even though there was not a significant difference between the standard deviation of the control group and the experimental group in the post-test, there appeared to be a large distance between the min scores (54 compared to 74) and max scores (88 compared to 100) of the two groups (Table 5).

Table 5

Descriptive statistics of the post-test

Variable	N	Mean	Min	Max	St Dev.
Post-test C	31	74.97	54.00	88.00	8.45
Post-test E	31	85.81	74.00	100.00	8.22

As the data suggested, the application of Quizlet to the vocabulary learning stage positively impacted students' vocabulary acquisition.

Students' perceptions of the treatment in terms of concentration, engagement, and excitement in listening classes

Once the data were available, a reliability test on the Likert-scale questions was conducted. The Cronbach's Alpha found was 0.9506, indicating a high possibility that participants in the study gave reliable responses to the Likert-scale questions.

Level of effectiveness in using Quizlet to learn vocabulary in the listening course

To find out the participants' feedback on how effective it was in using Quizlet to learn vocabulary in the listening course, we posed a Likert-scale question using a five-response scale ranging from *Totally ineffective* to *Totally effective*. The details are presented in Table 6.

Table 6

Effectiveness in using Quizlet to learn vocabulary in the listening course

Questionnaire items	Totally ineffective	Ineffective	Neutral	Effective	Totally effective
Q1	0.00%	0.00%	19.35%	32.26%	48.39%

Note. Q1: Question 1

The experimental participants were asked to rate the effectiveness of using Quizlet to learn vocabulary in general. The result indicated that the majority of respondents (n=25, 80.65 %) rated the use of Quizlet as positive. Meanwhile, six participants opted for a neutral decision (n=6, 19.35%).

How Quizlet helped students concentrate on vocabulary learning activities in class (Q2) and at home (Q3)

The participants were asked to respond to two Likert-scale questions indicating their concentration level when using Quizlet for vocabulary learning activities in class and at home. The distribution of responses is shown in Table 7.

Table 7

Concentration when using Quizlet to practice vocabulary in class (Q2) and at home (Q3)

Questionnaire items	Totally unconcentrated	Unconcentrated	Neutral	Concentrated	Totally concentrated
Q2	0.00%	0.00%	6.45%	41.94%	51.61%
Q3	0.00%	0.00%	16.12%	51.61%	32.26%

Note. Q2: Question 2; Q3: Question 3

Questions 2 and 3 aimed to investigate how the students attended to their learning with Quizlet live (in class) and regular or free Quizlet (at home) (Table 7). It was pleasing to see high percentages of positive ratings for both questions, at approximately 84-94%. However, it was interesting to find out that in the classroom, under the teacher's control, together with the cooperation with peers, students paid more attention to the vocabulary learning activities with the highest rating for 'totally concentrated' (n=16, 51.61%) and second highest for 'concentrated' (n=13, 41.94%). The reverse order was seen for the rating for practice with Quizlet at home, at 32.26% for the highest and 51.61% for the lower rank. In addition, the responses reported that maybe with the collaboration with team members and classroom setting, it was easier to give a decision on the choices, with only two members opting for neutral answers (6.45%), whereas, for the practice at-home, this number rose to five (16.12%).

How Quizlet helped students engage in vocabulary learning activities in class (Q4) and at home (Q5)

We asked two Likert-scale questions to see the differences in terms of engagement when the participants used Quizlet to practice vocabulary in class and at home. The details are found in Table 8.

Table 8

Engagement when using Quizlet to practice vocabulary in class (Q4) and at home (Q5)

Questionnaire items	Totally unengaged	Unengaged	Neutral	Engage	Totally engaged
Q4	0.00%	0.00%	3.23%	32.26%	64.52%
Q5	0.00%	0.00%	32.26%	58.06%	9.68%

Note. Q4: Question 4; Q5: Question 5

The responses to Questions 4 and 5 showed how the students engaged in their learning with Quizlet live (in class) and free Quizlet (at home) (Table 8). Positive responses for both questions were recorded. The result indicated that most students got much more involved in the learning activities with Quizlet live in class (n=30, 96.78%) than at home (n=21, 67.74%).

How Quizlet affected students' excitement in vocabulary learning activities in class (Q6) and at home (Q7)

Two questions were given to explore how students felt about using Quizlet to learn vocabulary. Contrasting figures were found about the participants'

emotions between using Quizlet in class and at home. The percentages are recorded in Table 9.

Table 9

Excitement with vocabulary learning activities with Quizlet in class (Q6) and at home (Q7)

Questionnaire items	Totally boring	Boring	Neutral	Excited	Totally excited
Q6	0.00%	0.00%	3.23%	29.03%	67.74%
Q7	0.00%	0.00%	61.29%	32.26%	6.45%

Note. Q6: Question 6; Q7: Question 7

As displayed in Table 9, most students showed their interest in learning vocabulary with Quizlet live with friends in class. Up to 67.74% of the students regarding their experience with Quizlet as 'totally excited' and 29.03% as 'excited.' Only one student showed neutral emotion. On the other hand, when asked about their feelings when learning vocabulary with Quizlet at home, the majority of students (n=19, 61.29%) described their feeling as neutral. The percentages reduced on the positive scale of excitement. Undeniably, without strong motivation and a sense of autonomy, it was hard for students to sit down and be keen on the vocabulary exercises.

Students' perceptions of the treatment via reflecting on the advantages and disadvantages

Besides the Likert-scale questions, students were required to answer two open-ended questions to provide in-depth perceptions and self-reflection on the treatment. The responses were analyzed and categorized into three major benefits, as presented below.

Ease of use

One of the advantages of using Quizlet or Quizlet live is its flexibility. Students can access the application via various electronic devices, including laptops, smartphones, iPads, etc. This strong point is portrayed via the following.

I like Quizlet because I can do it simply with my Samsung mobile phone.

I can use the QR code to enter the game. Sometimes, I can access Quizlet live quickly with the teacher's link on the Facebook group.

The interface is simple, with lovely buttons. And the integration of both definitions and photos brings ease to the learning process.

As reported, the participants acknowledged Quizlet in the aspect of its ease of use. A simple method was a click on a direct link or a QR code scan from their mobile phone, and they could get access to the practice on Quizlet. With the wide coverage of free Wi-Fi in most regions in Vietnam, students found it convenient to use Quizlet anywhere, anytime they needed to study. Also, the user-friendly interface did not require any special training for use. Anyone would perform the tasks easily using the guide and direction buttons on the page's edge.

Motivation

As an interactive tool, students can do the task alone as a review in the self-paced mode or join a team as a class competition with the timing mode. The application randomly assigned participants with various lovely trendy animal faces. With the stunning music one, students can learn and play at the same time.

The appearance of the fill-in-the-blank sentences forces me to read quickly and decide on an answer, which motivates me a lot.

Quizlet Live has many tasks, including photos, definitions, and situations. This makes the class more interesting and competitive.

I like to learn with Quizlet because it is fun.

The above responses indicated that Quizlet motivated students in the learning process. The variety of tasks, the force to give quick answers in the competition mode, and the fun atmosphere seemed to create an 'inside' demand to keep students on the learning activities. In other words, motivation should be gained from decision-making, actions, and achievements (Upa & Mbato, 2020), not merely cultivated from the teachers' words.

Usefulness

The term 'usefulness' refers to all the ideas that state learning effectiveness with Quizlet or Quizlet live. Students can use Quizlet as a means to check their complete understanding and use of the key vocabulary. Also, this application can be considered a tool to review for exams and improve speed and accuracy when doing vocabulary tasks.

I like the contexts in the fill-in-the-blank exercise because they help me to remember vocabulary usage.

Many kinds of exercises are helpful for me to review vocabulary. I can do it as many times as I like at home.

If I practice with Quizlet a lot, I can habitually read and give the answers very fast.

The above excerpt showed that students recognized the benefits of using Quizlet to learn vocabulary. They admitted that frequent practice, even repetition, helped them keep the vocabulary in their long-term memory and form a habit of reading. This flexible feature of Quizlet, together with students' perseverance, will make this application a useful learning experience. The responses to the open-ended questions revealed some disadvantages and limitations of using Quizlet.

The boredom due to lack of flexibility

Quizlet comes along with a few features, which according to students, may lead to a loss of interest when used repeatedly for a long time. These factors include the simplicity of the functions offered in the free version and a lack of variety in background music.

The music played in the games is just in three rhythms. The similar music for every Quizlet live activity sometimes reduced the mood to play.

Quizlet Live is available for just the paid version. The free version has only a few basic types of exercises.

The participants reported that the limit in background music rhythms and free version available tasks caused the loss of interest in Quizlet. Anything would lead to boredom when used repeatedly for a long time.

The dependence on Internet connection

Another drawback of using Quizlet is its dependability on the network connection. This opinion is reflected by many students who experienced the application.

The Internet connection quality in class affects the excitement of using Quizlet live in class.

The above response revealed that a stable and strong internet connection was indispensable in using Quizlet. Without a stable connection, any preparation for using Quizlet would result in failure and disappointment from the students. The two open-ended questions contributed a great deal to a deeper understanding of the use of Quizlet via the elaborate answers from the experimental participants.

Discussion

The first aim of the research is to investigate the finding of RQ1, “Does the integration of Quizlet with the combination of photos, definitions, and fill-in-the-blank tasks positively impact the students’ vocabulary learning in listening classes?” To answer this question, the results of a few tests were taken into consideration, including (i) paired samples t-test of the control group, (ii) paired samples t-test of the experimental group, (iii) independent samples t-test of the pre-tests, and (iv) independent samples t-test of the post-tests.

Statistics from (iii) the independent samples t-tests of the pre-tests of the two groups showed a mean score of 58.71 for the control group and 58.65 for the experimental group. The p-value of 0.954, larger than 0.05, indicated that the mean scores of the pre-tests of the two groups were not significantly different. This set a reliable foundation for the study as pre-tests at the beginning of experiments could produce effects that sensitized subjects to the actual purposes of the experiment. Without the pre-tests, the conclusion might result from flawed methodology (Cohen et al., 2002; Creswell & Creswell, 2017). After the eight-week treatment with Quizlet lives for the experimental group, both groups did the post-test and revealed score improvement. Results from the (i) paired samples t-test of the control group and (ii) paired samples t-test of the experimental group both showed a p-value smaller than 0.05, indicating a significant difference in the mean score of the pre-tests and post-tests. It could be concluded that students in both groups acquired better vocabulary. In other words, after eight weeks of learning, students in both groups understood more about the meaning of the vocabulary from lessons in class and homework activities. The students in the control group gained a mean score of 16.26. This improvement was seen as a norm because, with the appropriate teaching method and techniques, students would gain better knowledge and perform better at the end of the training course as a natural course of cognitive development or maturation (Marczyk et al., 2010; Phakiti, 2015). However, the experimental group’s findings implied a significant improvement in the mean scores of 27.16 between the pre-test and post-test. The (iv) independent samples t-test of the post-tests confirmed higher mean score improvement of the experimental group compared to that of the control group. Although the distance of Standard Deviation between the experimental group and control group was relatively small: 8.2 and 8.45, respectively, the scores of the experimental group were a little more homogenous after applying the treatment. This can be interpreted that the integration of Quizlet with the combination of visuals, definitions and fill-in-the-blank tasks had positive effects on vocabulary learning. The results from the t-tests in this research correlated with the findings of Aprilani (2021), Sanosi (2018),

and Waluyo and Bucol (2021) that the application of Quizlet to the process of teaching and learning vocabulary is an effective technique.

In response to RQ2, *“What are students’ perceptions of the treatment regarding concentration, engagement, and excitement in listening classes?”* the seven Likert-scale questions and the two open-ended questions were analyzed.

The responses to the first question about rating the level of effectiveness in using Quizlet to learn vocabulary in this course reported that the majority of the experimental participants gave positive ratings with up to 80.65%. This finding coincided with the findings of Aprilani (2021) and Prayogi and Wulandari (2021), that participants showed positive perceptions of using Quizlet in learning vocabulary.

The questionnaire aimed to seek participants’ perceptions of concentration, engagement, and excitement levels when using Quizlet to learn vocabulary. The questions were arranged in pairs, with the even questions focusing on practicing vocabulary in class and the odd ones focusing on reviewing vocabulary at home. This placement helped participants quickly see the signals and seek similarities or resonances between the questions (Cohen et al., 2002), so they would continue cooperating. The feedback from practicing vocabulary in class revealed that using Quizlet generally helped students get more concentrated, engage in class activities, and feel more interested in learning vocabulary. This perspective is in close accordance with that of Anjaniputra and Salsabila (2018) and Tran (2018), that Quizlet promotes learners’ engagement and joy in learning vocabulary. This is also in line with the research results of Aprilani (2021) that Quizlet made the learning process less tedious and more exciting and helped students feel more enthusiastic in classroom activities. On examining the feedback from the course of practice at home, one thing that might cause consideration is that the proportion of positive perceptions for the in-class activities with the existence of Quizlet live is higher than that for the homework activities, with 93.55% - 83.88%, 96.77% - 67.74%, 96.77% - 38.71% respectively in areas of concentration, engagement, and excitement. It can be inferred that the gamified factors could create more motivation relating to concentration, engagement, and excitement for students to study vocabulary. This idea is paralleled with the benefits of gamification for learners’ vocabulary learning Fithriani (2021) that it helped enhanced learning outcomes, enjoyment, and motivation.

It was understandable to see neutral responses ranging from 3.25% to 61.29% in the seven close-ended questions since, according to the concept of Multiple Intelligences by Gardner (2010), students may respond to various types of stimuli or various types of learning in various ways (Harmer, 2008). Therefore, it was

impossible to get positive perceptions about the use of Quizlet live from all the participants.

Moving on to the two open-ended questions about the advantages and disadvantages of using Quizlet during the treatment period, the personal responses reported that the benefits of the treatment outweighed the drawbacks.

The first advantage of using Quizlet was the ease of use. The combination of images and written definitions made learning smooth and easy. This opinion is reflected by Tan et al. (2020) that image is so powerful for L2 lexical attainment as English learners can easily retrieve words through images. Thornbury (2006) also stated that when learners could associate new words with some mental images, they could learn more effectively, even with abstract vocabulary. Consequently, EFL teachers could consider the possibility of integrating the use of images into vocabulary parts of the lesson.

The second advantage of Quizlet Live was the motivation it created in the participants. The variety of activities contributed to the class's interesting, competitive, and realistic atmosphere. Cirocki et al. (2019), in their research findings, claimed that the variety of activities helped motivate learners in the teaching process. Harmer (2008) theorized that adolescent or college learners often felt a lack of motivation and could learn best via interaction and various activities. This advantage is supported by Nguyen et al. (2022) that Quizlet Live provided an entertaining learning environment, enhancing learning motivation. In addition, it created more challenges for students to conquer themselves. As a result, it boosted excitement in the activities, as Pawlak et al. (2020) mentioned that lack of challenges caused boredom. However, the researchers were also concerned that if the tasks were too challenging, students might also face boredom and demotivation (Afflerbach & Harrison, 2017). Therefore, the teacher should observe students' reactions in each activity to see if the task was too easy or too difficult for them so that the teacher could adapt the questions to fit the level of the students in class.

Another advantage was the usefulness of the vocabulary learning process. Quizlet offered the chance for effective acquisition of the usage of the new words via contextualization in the fill-in-the-blank tasks. This is similar to the strategies of Thornbury (2006) that new vocabulary should be presented in their typical contexts to give learners a feel for their meaning, their register, their collocations, and their syntactic environments. These aspects gave learners a full grasp of the new words, especially how to use the words appropriately in various situations.

In addition, using Quizlet with various tests to review the vocabulary at home brought students good practice. Students would have more opportunities for self-regulating learning and could deal with vocabulary in different

situations. The more they practiced at home, the better learning outcomes they could achieve. This response is backed up by the findings of Korlu and Mede (2018) and Nguyen (2022), that Quizlet played an active role in facilitating self-study of English vocabulary. What's more, Quizlet helped enhance the speed of completing exercises. The time set and the gaming atmosphere, whether to play in groups or individually, motivated students to channel their competitive spirit into learning. They would try their best to complete the task with the best answer and in the shortest time (Sung, 2019).

Two major issues were collected concerning the drawbacks of the treatment of the study. First, the internet connection was seen as a big concern. The interruption or unstable connection affected the level of excitement when doing the activities via Quizlet. This is similar to a few findings (Anjaniputra & Salsabila, 2018; Saienko & Chugai, 2020) that internet connection appeared to be the biggest problem of online learning platforms. The second drawback reported from the study included the simplicity of its functions and the lack of variety in the music background for games. If students just used the basic or free version of Quizlet, they could utilize just limited types of exercises. Quizlet Live came with more interesting features, but these were limited to memberships. Another major concern about the use of Quizlet Live was the similar music for all the activities. It is undeniable that any classroom techniques or activities if fallen into the perception of monotony or repetitiveness, would lead to a lack of satisfaction and challenge and then boredom for language learners (Pawlak et al., 2020).

It can be indicated that the advantages of embedding Quizlet into vocabulary instructions outweighed the major disadvantages, which were mainly the quality of the internet connection, the unpaid Quizlet version, and the monotony of the process. The general perceptions highlighted the role of Quizlet sets with the combination of three different types of illustration, the importance of contextualized vocabulary in fill-in-the-blank tasks, the enjoyment factors in learning with Quizlet Live, and the motivations evoked from using Quizlet.

Conclusion

The research study aimed to investigate the impact of using Quizlet live creatively in the vocabulary section of online academic listening classes. Results from the duration of eight weeks suggested that the use of photos, definitions, and fill-in-the-blank tasks in Quizlet live to boost the student's level of academic vocabulary brought about considerable improvement for the experimental

participants. Also, the study reported positive attitudes from the experimental participants towards this learning model using Quizlet live.

Although the research study provided promising results, the design and process limitations are worth considering for further research. The length of the study was short, lasting for only eight weeks, which may not reflect the real influence of the use of Quizlet lives. There should have been a pilot study to make the data more reliable. Besides, the number of participants is limited. A study with a large amount of data would make the findings more representative. In addition, quick interviews to be added to the research method would exploit a deeper analysis of participants' perceptions. Then, more insights from the participants on the influence of using Quizlet in learning academic vocabulary in listening classes would be collected.

There still existed drawbacks to the application of Quizlet live. Still, this online learning platform, especially with photos, definitions, and fill-in-the-blank tasks, showed high potential as a vocabulary teaching tool for English classrooms. In light of the research findings, Quizlet live could be used as an alternative, integrated with the ELT curriculum, to help improve concentration, engagement, and excitement, which would help facilitate an exciting and effective learning environment, at least in the vocabulary sections of the listening classes.

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Appendix. Questionnaire items (7 items of the closed-ended questions; 2 items of the open-ended questions)

1. Rate the level of effectiveness in using Quizlet to learn vocabulary in this course.
 - Totally ineffective
 - Ineffective
 - Neutral
 - Effective
 - Totally effective
2. Rate the level of concentration when using Quizlet to practice vocabulary in class.
 - Totally unconcentrated
 - Unconcentrated
 - Neutral
 - Concentrated
 - Totally concentrated
3. Rate the level of concentration when using Quizlet to review vocabulary at home.
 - Totally unconcentrated
 - Unconcentrated
 - Neutral
 - Concentrated
 - Totally concentrated
4. Rate the level of engagement when using Quizlet to practice vocabulary in class.
 - Totally unengaged
 - Unengaged
 - Neutral
 - Engaged
 - Totally engaged
5. Rate the level of engagement when using Quizlet to practice vocabulary at home.
 - Totally unengaged
 - Unengaged

- Neutral
 - Engaged
 - Totally engaged
6. Rate the level of excitement when using Quizlet to practice vocabulary in class.
- Totally boring
 - Boring
 - Neutral
 - Exciting
 - Totally exciting
7. Rate the level of excitement when using Quizlet to practice vocabulary at home.
- Totally boring
 - Boring
 - Neutral
 - Exciting
 - Totally exciting
8. What are the advantages of using Quizlet to learn vocabulary?
9. What are the disadvantages of using Quizlet to learn vocabulary?