



A Systematic Literature Review the Use of Quizizz on EFL Students' Vocabulary Mastery: A Shift from Pandemic to Post-Pandemic

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Abstract

The impact of the Covid-19 pandemic has highlighted the importance of gamification in education, with Quizizz emerging as a popular tool for interaction between teachers and students. This systematic review focuses on previous research examining the effects of Quizizz on vocabulary skills, particularly among English as a Foreign Language (EFL) learners. Adhering to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, the study accessed ten journal articles published between 2019 and 2024 via Google Scholar and Crossref. Through rigorous review processes, including inclusion and exclusion criteria, this review investigates how Quizizz is utilized in educational settings to enhance student vocabulary skills. The findings underscore Quizizz's potential to offer engaging features that facilitate vocabulary learning and improvement among students. The practical implications of this study suggest that EFL teachers should consider integrating Quizizz into their classrooms. Quizizz can effectively complement traditional teaching methods or be utilized independently for vocabulary practice. Future research should explore the long-term effects of using Quizizz on vocabulary retention, its applicability across different proficiency levels, and its impact on students' motivation for vocabulary acquisition.

Keywords: *Quizizz; EFL; SLR; Vocabulary*

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1. Introduction

The COVID-19 virus, first identified in Wuhan, China, in December 2019, rapidly spread across the globe, reaching Indonesia by March 2020. To curb the virus's transmission, the Indonesian government implemented various measures, including restrictions on social activities and travel, as well as a nationwide vaccination campaign. By April 2023, Indonesia had recorded over 11.2 million cases and 337,000 deaths. While active cases have been declining, the emergence of new variants remains a potential threat. Indonesia has prioritized achieving herd immunity

through vaccination, administering over 115 million doses by early 2021 (World Health Organization, 2021).

The pandemic also posed unprecedented challenges to Indonesia's national education system. In response, the government introduced initiatives to mitigate its impact, such as providing students and teachers with devices and internet access to facilitate remote learning, alongside accelerating vaccination efforts to enable the safe return to in-person schooling. However, the recovery of the education sector requires sustained efforts and collaboration among all stakeholders (UNESCO, 2021).

As we transition into the post-pandemic era, the critical role of technology in education has become increasingly evident. The global shift to remote learning during the COVID-19 crisis underscored the necessity of integrating technological tools to ensure the continuity of education. This experience has amplified the recognition of technology's potential to enhance and transform the educational landscape (Dhawan, 2020). The pandemic has served as a catalyst for reimagining education, emphasizing the importance of innovation and adaptability in addressing future challenges.

Some previous studies have already emphasized the positive impact of technology on education. Technology also enables personalized learning experiences by tailoring educational content and pacing to individual students' needs, improving engagement and learning outcomes (Chen et al., 2023). Moreover, technology enables global connections and cultural exchange, allowing students to connect with peers and experts from around the world, expanding their perspectives and fostering global awareness (Zhao, 2019). The availability of Massive Open Online Courses (MOOCs), webinars, and online tutorials promotes lifelong learning by offering opportunities for self-paced, independent learning beyond traditional classrooms (Rulinawaty et al., 2023).

While some previous research laid the foundation for understanding the benefits of technology in education, the COVID-19 crisis accelerated the integration and adoption of technology in learning. The widespread shift to remote learning highlighted the necessity and potential of technology in ensuring educational continuity. As a result, educators, policymakers, and institutions have become increasingly aware of the importance of technology in supporting effective and flexible learning environments.

Furthermore, in light of the swift advancements in technology, educators and other stakeholders in the field of education are contemplating pedagogical approaches that can enhance students' language proficiency through the utilization of supportive learning media, which constitutes a pivotal facet thereof. Currently, there exists a plethora of websites and applications that serve as effective tools for educational purposes. Numerous software tools are available for gamification, including but not limited to Kahoot!, Flip quiz, Socrative, Duolingo, and Class Dojo. Quizizz is widely recognized as one of the most prominent gamification software (Zainuddin et al., 2020). Amornchewin (2018), posits that Quizizz is an educational tool that has the potential to stimulate students' interest in learning through its captivating features. Quizizz gained prominence due to the effects of the pandemic, which necessitated the transition of all educational activities to virtual platforms.

Additionally, it is anticipated that the utilization of Quizizz during and post-pandemic context will enhance student motivation and yield a significant impact on their English language proficiency, particularly with regards to vocabulary acquisition. In recent years, there has been a significant amount of research conducted on the implementation of Quizizz and game-based learning. Prior studies have explored the effectiveness of Quizizz in enhancing vocabulary acquisition among English as a Foreign Language (EFL) learners. While these studies share a common focus on the platform's impact, they differ in their specific findings and contexts. For instance, Lee & Perret (2022) found that using Quizizz for vocabulary practice led to a statistically significant improvement in post-test scores compared to traditional methods. Similarly, Winingsih (2022) observed a notable increase in vocabulary proficiency among Junior High School students who used Quizizz, reinforcing its effectiveness as a learning tool. On the other hand, Na'imah (2022) highlighted Quizizz's ability to boost student engagement and facilitate effortless teaching, emphasizing its potential to enhance linguistic proficiency at a self-paced rate.

Despite these differences, a common thread across the studies is the recognition of Quizizz as an engaging and effective medium for vocabulary learning. However, the studies vary in their focus—some emphasize quantitative improvements in test scores (Lee & Perret, 2022; Winingsih, 2022), while others highlight qualitative benefits such as increased engagement and ease of teaching (Na'imah, 2022). These findings collectively suggest that Quizizz is a versatile tool that can address both cognitive and affective aspects of language learning, making it a valuable resource for EFL educators.

Nevertheless, there is still not that much systematic review research conducted in the latest period. Therefore, this paper will only reflect journal articles about the effects of using quizizz on students' vocabulary, especially EFL students in the 2021-2024 period, due to the lack of research that specializes in this category. This systematic review aims to investigate the impact of Quizizz on the vocabulary of EFL learners. It seeks to bridge existing gaps by summarizing prior studies concerning Quizizz's effectiveness in enhancing vocabulary among EFL students from 2021 to 2024. The review aims to analyze research articles on Quizizz's role in developing EFL students' vocabulary during this period and to summarize their findings to fulfil the overarching goals of the study, which is to determine the effect of using Quizizz on the vocabulary of EFL learners.

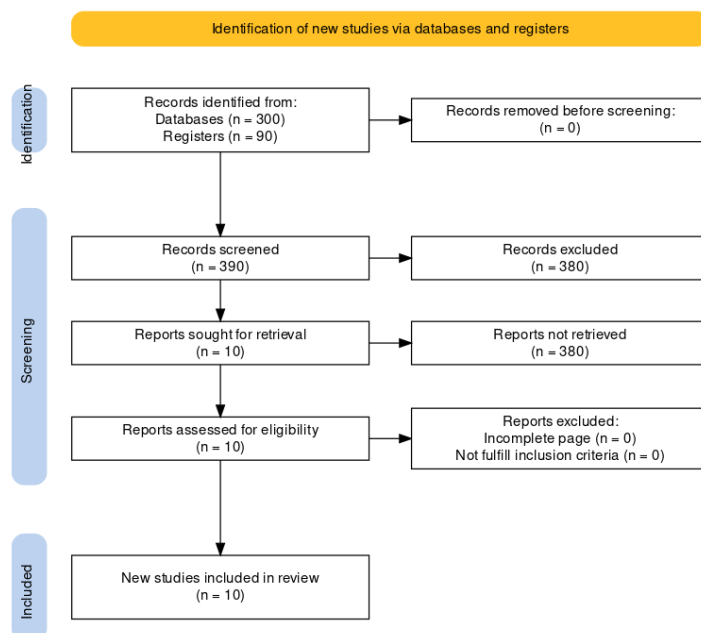
Therefore, conducting this systematic review on the impact of Quizizz on the vocabulary acquisition of EFL students from 2021 to 2024 is crucial due to the current lack of focused research in this area. It aims to fill this gap by synthesizing recent studies, providing valuable insights into the effectiveness of this educational technology. The review will inform educators and policymakers about the benefits of integrating Quizizz into language learning, particularly in light of recent advancements and the shift toward online education. This research supports the development of effective teaching practices, aids EFL learners in improving their vocabulary, and encourages further research, thereby having global relevance for enhancing English language education.

2. Method

In exploring the utilization of Quizizz to enhance the vocabulary of EFL students and instructors in English language education, relevant publications from 2021 to 2024 were examined. Employing a systematic review methodology, the selected articles focused on Quizizz's impact on students' vocabulary development and encompassed various other dimensions of its use. Adhering to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Page et al., 2021), this study utilized PRISMA to delineate the process of identifying and selecting articles for review, establishing eligibility criteria, collecting and detailing data, identifying study resources, and presenting results.

The articles examined in this systematic review were sourced from Google scholar an electronic database, using specific keywords. The keywords employed were "Using Quizizz for vocabulary development" and "Implementation of Quizizz for vocabulary enhancement in EFL learners." The search was restricted to the period from 2021 to 2024. The review process encompassed database and keyword searches, application of inclusion and exclusion criteria, and article selection. Initially, 300 articles were retrieved from the database search, and subsequent application of inclusion and exclusion criteria led to the identification of relevant articles for the study.

Figure 1. Visual representation of the search and selection process based on (Page et al., 2021) (Haddaway et al., 2022)



The systematic method of selecting articles for inclusion and deletion based on pre-established criteria is visually represented by the PRISMA flowchart. In this stage, the selected papers are carefully evaluated by the researchers to see if they may be included in the study. The inclusion criteria delineate the particular attributes that articles must exhibit in order to be considered pertinent and appropriate for analysis, whereas the exclusion criteria list the elements that make articles inappropriate, such as irrelevant subjects or insufficient techniques. By using these standards, researchers make an effort to incorporate only the most relevant and reliable publications, protecting the validity and integrity of their findings.

Table 1. Inclusion and exclusion criteria

Inclusion criteria	Exclusion criteria
The use of Quizizz in EFL setting	Not using Quizizz in EFL setting
Must be about the use of Quizizz on EFL vocabulary	The use of Quizizz on the others aspect of EFL vocabulary
Must be empirical research	Non-empirical research
Published in the year of 2019-2024	Not Published in the year of 2019-2024
English language	Other languages
EFL and teacher English language context	Not EFL and teacher English language context

Exclusion criteria were employed to eliminate articles that fell outside the research scope, while inclusion criteria were utilized to identify those aligning with the study's focus. Following the database selection process, only ten articles met the criteria and were included in this study. Figure 1 illustrates the search and selection process visually.

Based on the criteria in table 1, it was found that there were 10 articles meeting the inclusion criteria that discussed the effects of using Quizizz to improve student vocabulary skills in particular EFL learner. Some articles conduct investigations in Indonesia, but most of the research carried out in Asia shows that English is a foreign language in those countries.

3. Findings

The researcher identified ten articles meeting the selection criteria through a systematic review, focusing on the use of Quizizz to enhance the vocabulary of English as a Foreign Language

(EFL) learners. Table 2 provides an overview of these selected articles published between 2019 and 2024. Overall, the majority of these articles emphasize the effectiveness of Quizizz in improving the vocabulary of EFL students. Among the previous articles listed in Table 2, mixed methods and quantitative approaches were commonly employed to investigate the impact of Quizizz on students' vocabulary skills.

The countries using Quizizz the most include the United States, India, and Indonesia. In the United States, Quizizz is widely integrated into educational systems, with approximately 90% of schools utilizing the platform to engage students in interactive learning activities. India also sees extensive use of Quizizz, benefiting from the platform's gamified learning approach to enhance student participation and retention. Indonesia is another leading user, where Quizizz is leveraged to support various educational initiatives and enhance student engagement through its interactive quizzes and lessons.

These countries utilize Quizizz for its ability to make learning fun and interactive, helping students retain information better and reducing test-taking anxiety. The platform's features, such as customizable quizzes and detailed performance reports, make it a valuable tool for educators globally.

The utilization of Quizizz as a learning medium is widespread in various countries, including Indonesia. Previous studies have demonstrated the effectiveness of Quizizz in enhancing students' vocabulary mastery. Most of the existing research focuses on junior high school students. As shown in Table 2, the majority of these studies employed mixed methods. According to the findings, ten articles reported positive responses to the use of Quizizz in improving students' vocabulary abilities. While the researcher reviewed numerous studies on the use of Quizizz, many did not meet the inclusion criteria.

Table 2. An overview of the selected article of the use of Quizizz in EFL setting

No	Authors	Findings	Method	Limitations
1.	Maria Dimitrij Angie Pavita, Deli Nirmala (2021)	Teaching vocabulary through Quizizz can improve the students' vocabulary mastery.	Mixed method	the research was conducted in a single school and involved a relatively small sample size of twenty-six students from one class.
2.	Chen x, Zhang D, Zhang H et al. (2023)	The study found that Quizizz, a game-based learning application, positively impacted college EFL learners' learning effectiveness and engagement	Mixed method	The sample size was relatively small, consisting of only 20 EFL learners from a single university in Zhejiang Province, China
3.	Emelia T, Silaen V, Manurung I (2024)	The study found that the utilization of the Quizizz application effectively enhanced students' vocabulary mastery	Mixed method (action research)	the sample size was relatively small, consisting of 32 students from a single class, which may impact the representativeness of the results.
4.	Kolanus D, Olii S, Rorimpandey R (2023)	The research revealed that the implementation of Quizizz in learning basic English vocabulary had a positive impact on students	Qualitative method	the research did not include a comparison group or control condition, making it difficult to ascertain whether the observed 5.outcomes were solely attributable to the use of Quizizz or other factors
5.	Law Szee Huei, Melor Md Yunus, Harwati	The finding from this study confirms the association between Quizizz and	Mixed method	The small sample size of 13 participants

	Hashim. (2021)	vocabulary achievement. The explanations for this result are that Quizizz is equipped with the vocabulary theory of marginal effect, and it is multimodal.		
6.	Ariani Dyah Pusparani , Senowarsito, Siti Musarokah (2021)	It showed that the students' vocabulary mastery who taught without using Quizizz got a little improvement	Quantitative	The lack of consideration for potential confounding variables or factors that may have influenced the results
7.	Na'imah (2022)	The result showed that game applications like Quizizz can make language learning more exciting and engaging for students, leading to increased motivation and improved outcomes	Mixed method	The lack of empirical evidence, transparency in methodology, discussion of potential challenges, and generalizability of findings.
8.	Yusi Winingsih (2022)	the researcher found that there was a significant difference of students' vocabulary mastery between students taught by using quizizz and without using quizizz.	Quantitative method	The small sample size, especially in the control group. While the experimental group consisted of 25 students, the control group only had 15 students.
9.	Natasya Tania Agustin (2022)	the researcher concluded that Quizizz can increase students' motivation to learn, especially in vocabulary mastery.	Quantitative method	The lack of detail provided regarding the experimental design and procedures
10.	Komalasari N, Zuhriyah M (2021)	The results of this research showed that there was improvement from cycle 1 to cycle 2	Mixed method	The small sample size consist of 20 students
11.	Ngô Thị Bích Ngọc, Tran Thi Kim Phuong (2022)	The application of Quizizz games was beneficial to students, increasing their vocabulary retention and making the learning more motivating.	Quantitative method	The lack of generalizability of the findings. Since the study is a case study conducted at Thai Nguyen University of Education, the results may not be applicable to other institutions or student populations

After analyzing the data, the researcher identified ten relevant articles for this study, with the majority demonstrating a positive impact of Quizizz on students' vocabulary. The methodologies employed varied, including mixed methods, quasi-experimental designs, and both quantitative and qualitative approaches. Several studies utilized pre-test and post-test comparisons

between control and experimental groups to assess effectiveness. The settings of these studies were diverse, with many taking place in school environments. However, most of them are conducted at Junior high school. Table 2 provides a summary of the findings from these selected articles on the use of Quizizz for enhancing students' vocabulary skills.

4. Discussions

The use of Quizizz as a tool for enhancing vocabulary acquisition among English as a Foreign Language (EFL) learners has been extensively studied in recent years, with research consistently highlighting its effectiveness in improving vocabulary proficiency, student engagement, and motivation. For example, Komalasari & Zuhriyah (2021) reported significant improvements in vocabulary mastery, with mean scores increasing from 53 in the pre-test to 84 in the post-test. Similarly, Winingsih (2022) found statistically significant differences in vocabulary proficiency between students who used Quizizz and those who did not, reinforcing its potential as a valuable learning tool. Beyond quantitative improvements, Na'imah (2022) emphasized Quizizz's ability to foster greater student engagement and facilitate more effective teaching. The gamified and interactive nature of Quizizz not only enhances learning outcomes but also creates a more enjoyable and motivating environment for students.

Quizizz's adaptability across diverse educational contexts further underscores its effectiveness. Studies such as Szee Huei et al. (2021) and Kolanus et al. (2023) have demonstrated its positive impact even in challenging settings. For instance, Szee Huei et al. (2021) found a strong correlation between Quizizz usage and vocabulary achievement during the Covid-19 pandemic, particularly in remote areas. Similarly, Kolanus et al. (2023) highlighted its success in improving vocabulary acquisition among primary school students, showcasing its applicability across different age groups and learning environments. These findings suggest that Quizizz is not only effective in traditional classroom settings but also in situations where access to resources and face-to-face interaction may be limited.

In addition to improving vocabulary proficiency, Quizizz has been shown to positively influence students' attitudes toward learning. Research by Ngoc & Phuong (2022) revealed that Quizizz games enhanced vocabulary retention and increased motivation among EFL learners. Similarly, Emelia et al. (2024) observed improvements in students' responsibility, collaboration, and self-confidence, alongside significant gains in vocabulary knowledge. These studies highlight the dual benefits of Quizizz: it not only enhances cognitive outcomes but also fosters positive affective responses, making it a holistic tool for language learning.

Moreover, Quizizz has proven effective as a supplementary learning medium, particularly in asynchronous and digital learning environments. Dyah Pusparani & Musarokah (2021) found that Quizizz significantly improved vocabulary mastery in asynchronous learning settings, with the experimental group outperforming the control group in post-test scores. Similarly, Kadek Liana Dewi et al. (2022) emphasized its high-quality content and media, which make it an effective tool for enhancing learning outcomes in digital contexts. These findings underscore Quizizz's potential as a versatile and accessible resource for educators, particularly in the era of blended and online learning.

To summarize, the reviewed studies collectively affirm Quizizz as a powerful tool for vocabulary learning, offering benefits that extend beyond cognitive gains to include increased engagement, motivation, and positive learning attitudes. Its adaptability across diverse contexts and its effectiveness as a supplementary learning medium make it a valuable resource for EFL educators. However, future research could explore its long-term impact on vocabulary retention and its applicability across different age groups and educational settings, providing deeper insights into its unique advantages.

5. Conclusion and Suggestion

It has been demonstrated that using Quizizz as a teaching tool can significantly improve student engagement and vocabulary competency. Because of its gamified and interactive style, students have more fun while learning, which increases their motivation and engagement—two factors that are critical for language learning. Research shows notable gains in test results, demonstrating Quizizz's efficiency in helping students learn and remember terminology by

providing quick feedback and maintaining their attention. Additionally, Quizizz fosters an engaging learning atmosphere by recognizing achievement and promoting friendly rivalry, which is very helpful in demanding or distant learning environments. All things considered, Quizizz proves to be a flexible and useful tool for vocabulary acquisition, improving students' attitudes toward learning and the effectiveness and enjoyment of the educational process, especially in post-pandemic settings.

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