

Empowering EFL Students' Reading Comprehension Abilities with Quizwhizzer



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ABSTRACT: Proficient reading comprehension is a fundamental ability to acquire language acquisition in English language learning. However, the level of reading comprehension among students in Indonesia remains inadequate because of paper-based learning methods. Integrating game-based media in teaching reading comprehension can hold great potential for enhancing reading comprehension. Thus, the study's objective was to address whether QuizWhizzer, a game-based learning platform, can impact EFL students' reading comprehension skills. The research employed a quasi-experimental approach, utilizing both experimental and control classes. This research recruited 45 seventh-grade students from a private Junior High School in Surabaya, selected using purposive sampling. They were assigned to the control class, which consisted of 23 students, and the experimental class, which consisted of 22 students. Data were collected through a standardized reading comprehension test consisting of 30 questions. The pre-test and post-test data were analyzed using inferential statistics, specifically an independent sample t-test. The findings indicated that QuizWhizzer successfully enhanced students' reading skills. It was demonstrated that the post-test average score of the experimental group was 82.45, whereas the control group was 75.52. The 2-tailed significance value was 0.023, below the threshold of 0.05, meaning there was a notable difference in post-test scores between the two classes. Ultimately, utilizing QuizWhizzer media effectively improved students' reading comprehension abilities significantly. The integrated digital tools that align with learning objectives can positively impact reading comprehension, particularly for students in middle school grades. The interactive and engaging nature of QuizWhizzer could help mitigate some of the challenges associated with digital reading environments. Therefore, it is advised that future researchers pursue this research to examine students' attitudes regarding learning with QuizWhizzer media.

KEYWORDS: Education, Reading Comprehension, Descriptive Text, QuizWhizzer, Technology

I. INTRODUCTION

In the digital era, reading comprehension has taken on a new level of importance as the volume and speed of information exchange have increased exponentially. Reading comprehension is a crucial skill that students need to acquire before progressing in other aspects of language acquisition in English learning environments (Ceylan & Baydik, 2018). Numonjonovna (2023) noted that reading comprehension helps students expand their vocabulary and understand the correct usage of grammar. Unsurprisingly, students who read and engage in frequent reading demonstrate better communication skills compared to those who rarely read. Moreover, Rochimah and Muslim (2021) claimed that students require comprehension to gain meaning from what they read and take advantage of reading. This means that any ideas and information in the reading material that the writer tried to convey are rendered useless without reading comprehension. Additionally, reading comprehension enables students to develop proficiency in reading by requiring them to thoroughly comprehend the content of reading materials. Al-Khamaiseh and Al-Jamal (2022) mentioned that being an effective reader enables students to gain new knowledge, develop new skills, and strengthen lifelong learning.

Moreover, 21st-century readers must be able to distinguish between fact and fake information or hoaxes (OECD, 2021). It means that students must understand the context, the main idea, and the details of what they read in order to gain correct information. Reading comprehension, as defined by Yurko and Protsenko (2021), is the capacity to understand and analyze information obtained from reading sources. In addition to facilitate information acquisition, Gultiano (2022) contended that reading comprehension also affords students the chance to achieve academic and professional success. Thus, reading comprehension becomes an important ability in the process of learning English.

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Nonetheless, the reading comprehension proficiency of students in Indonesia remains insufficient. The latest PISA (Programme for International Student Assessment) results indicate that Indonesian students experienced a 12-point decrease in reading performance, ranking them 11th lowest among 81 countries worldwide (OECD, 2022). Numerous factors contribute to students' reduced reading comprehension. Klimova and Zamborova (2020) argued that students struggle to comprehend reading materials due to insufficient motivation and impaired concentration. Sánchez et al. (2021) added that teachers' tendency to use traditional teaching methods has a detrimental effect on students' reading comprehension abilities and fosters negative attitudes towards reading. Furthermore, preliminary observations at a private junior high school in Surabaya indicated that students struggled to comprehend the contextual meanings of words inside the text. The issue stemmed from the restricted availability of appropriate reading materials and insufficient early exposure to reading habits. Subsequently, students exhibited disinterest in the reading materials produced by the teachers, as they depended on traditional paper-based approaches for teaching reading comprehension. Students exhibit a deficiency in engagement and dedication to reading due to the misalignment of paper-based materials with their particular interests or their perception of relevance to their lives. Additionally, the pervasive use of gadgets and social media has shortened attention spans, further hindering reading development. In fact, the school permitted students to bring smartphones or tablets with the expectation that these devices would support learning activities.

Therefore, integrating media and technology as a means to enhance reading comprehension in Indonesia appears promising. Putri and Susanti (2022) assert that technology can facilitate teaching and learning processes since it offers interactive and visually stimulating educational experiences that can engage students and enhance learning. Moreover, Chen et al. (2020) supported that the application of classroom technology, especially game-based media, can significantly improve student engagement, motivation, and collaboration. Several researchers discovered that online game-based media significantly enhances students' reading processes, reading proficiency, and reading motivation (León et al., 2022; Li & Chu, 2020). Therefore, integrating game-based media in teaching reading comprehension holds great potential to improve learning efficacy.

Research conducted by Oktika et al. (2023) demonstrated that implementing QuizWhizzer as a learning media successfully enhanced students' vocabulary. Bartrum (2019) argued that QuizWhizzer is an educational platform that enabling educators to tailor engaging quiz competitions that foster an engaging educational atmosphere for students. Additional research revealed that using QuizWhizzer can improve students' learning outcomes in subject-verb agreement material (Adawiyah & Yani, 2024). Moreover, using QuizWhizzer as media for evaluation also positively influences students' enthusiasm (Putra et al., 2023). Regarding the advantages and difficulties of using online learning media (i.e. QuizWhizzer, Kahoot!, WhatsApp, and Google Classroom), Dewi et al. (2023) identified several advantages, including enhanced student engagement, increased understanding of the lesson, and improved teacher creativity. At the same time, they also noted challenges such as unstable internet connection, financial issues, and time management difficulties.

Although QuizWhizzer has demonstrated efficacy in enhancing vocabulary mastery, improving subject-verb agreement understanding, and boosting students' engagement, there remains a lack of investigation into its influence on general reading comprehension abilities. This research seeks to examine the influence of QuizWhizzer media on the reading comprehension skills of Junior High School students. This study exclusively examined the effect of QuizWhizzer on the reading comprehension of descriptive texts among Junior High School students, which has not been the primary focus of previous research on QuizWhizzer as game-based learning platforms in EFL contexts. Specifically, it addresses the research question: "Does the use of QuizWhizzer lead to significant improvements in reading comprehension compared to traditional methods?". Hereafter, the results of this study could provide valuable insights for educators seeking to integrate game-based platforms into their curricula, potentially leading to more engaging and effective teaching strategies for improving reading comprehension among EFL students.

II. LITERATURE REVIEW

Reading comprehension is a critical skill in the digital era, pivotal for academic and professional success (Komilovna, 2023; Rochimah & Muslim, 2021). It involves understanding the main idea, details, and inferences within a text and is essential for effective learning and knowledge acquisition (Brown & Abeywickrama, 2019). In the context of education, teaching reading comprehension is a multi-faceted process that aims to develop proficient readers capable of lifelong learning (Al-Khamaiseh & Al-Jamal, 2022; Ceylan & Baydik, 2018; Gultiano, 2022; Kung, 2019). In this regard, a three-stage approach to teach reading comprehension, consisting of pre-reading, while-reading, and post-reading stages, is advocated to build students' abilities (Nafa, 2022). The pre-reading stage activates prior knowledge and interest, while-reading involves the application of reading strategies, and post-reading includes summarization and reflection activities (Ghafournia, 2023). Additionally, Yurko and Protsenko (2021) proposed two key reading strategies. They are skimming, for grasping the main idea and scanning, for locating specific information.

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Effective teaching of reading comprehension also involves discussion activities, which enhance understanding through collaborative learning and idea exchange (Grabe & Stoller, 2022; Herlinawati et al., 2022; Susanti et al., 2020). Moreover, developing students' reading motivation is crucial, as motivated students are more likely to become skilled readers (Toste et al., 2020). Teachers can foster motivation by offering a variety of reading materials and creating a supportive learning environment (Grabe & Stoller, 2022). One of the reading materials that can be used is descriptive text. Descriptive text is a genre that aims to provide detailed information about objects, places, animals, or people, engaging the reader's senses (Fulwiler, 2002; Sulistyansih & Perdana, 2020). According to Noprianto (2017), descriptive text typically consists of an identification part, introducing the object, and a description part, detailing its characteristics.

Afterwards, assessment is integral to the teaching process, providing insights into students' learning progress and informing future teaching strategies (Alfian et al., 2022; Septia et al., 2022). According to Sufyadi et al. (2021), three types of assessments are highlighted: assessment as learning, for learning, and of learning, each serving different purposes in the learning process. A comprehensive assessment of reading comprehension should include various question types that evaluate different aspects of understanding, such as main ideas, supporting details, vocabulary, inferences, and grammatical features (Adlika, 2023; Brown & Abeywickrama, 2019; Imran, 2023).

Thereafter, the use of learning media like QuizWhizzer is essential in teaching reading comprehension (Puspitarini & Hanif, 2019). QuizWhizzer is an accessible, user-friendly platform compatible with various devices, requiring no account creation for students to participate (Bartrum, 2019). Sari et al. (2021) mentioned that QuizWhizzer falls into the multimedia category, combining text, images, and audio to provide an interactive learning experience. It is categorized into audio, visual, audio-visual, and multimedia, each addressing different learning preferences. QuizWhizzer supports a range of question types and uses gamification to enhance engagement. Students can easily participate in the quiz race by scanning the barcode given by the teacher. They can access QuizWhizzer through any device, whether smartphone, tablet, or laptop (Efendi & Sutiarty, 2022). Students do not even need to create an account to join a game on the QuizWhizzer platform. Thus, the incorporation of multimedia learning platforms like QuizWhizzer can significantly enhance student engagement and learning outcomes.

III. METHOD

The research deployed a quantitative approach using a quasi-experimental design. It was conducted during the academic year of 2023/2024 at a private Junior High School in Surabaya. A purposive sampling was used to decide samples by considering the equality of students' capabilities based on the English teacher's recommendation. Two unmodified seventh-grade classes, totalling 45 students, were selected as participants. According to Gall et al. (2003), experimental research requires a minimum of 15 participants in each group being compared. Thus, one class with 22 students served as the experimental group who received a series of treatments, while the other class with 23 students became the control group.

The instrument used a reading comprehension test focused on descriptive text about persons. The test was divided into pre- and post-tests. The instrument consisted of 30 questions. 25 questions were multiple-choice with four answer options, and 5 questions were short-answer. The test questions were adapted from various online sources by referring to the reading comprehension indicators. The indicators encompass identifying the main idea or topic, finding supporting ideas, guessing vocabulary or phrases, identifying inferences or implied details, finding specifically stated details, recognizing unstated details, and identifying grammatical features (Brown & Abeywickrama, 2019).

Subsequently, a validity and reliability test was carried out to ensure the instrument was appropriate for use. This research used content validity to check the compatibility of the instrument by referring to several aspects, including the format, material, construction, and language used. An expert in a relevant field was employed to validate the research instrument. The instrument was considered valid, and it could be used with minor revisions. Internal consistency was then checked to assess the instrument's reliability. The procedure of this reliability test employed the full version of the instrument, and it was administered once (Creswell, 2012). The try-out test was administered to 10 seventh-grade students under the same population but outside the sample. According to Ary et al. (2010), an instrument is acceptable if the reliability coefficient is greater than 0.60. The calculation results showed that the reliability score for multiple-choice questions was 0.672, and the reliability score for short-answer questions was 0.715. In other words, the value of Cronbach's Alpha was higher than 0.60. This can be interpreted as the reading comprehension test had high reliability. Therefore, the instrument was proven reliable and suitable for use in gathering data.

The data analysis involved normality, homogeneity, and hypothesis tests calculated using SPSS 26. First, the Shapiro-Wilk test was executed to check if the data was distributed normally. The significance value must be greater than 0.05 to be considered normally distributed (Creswell & Creswell, 2018). The test results showed a significance value of 0.134 in the experimental

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group's pre-test and 0.071 in the post-test. Meanwhile, the control group's pre-test significance value was 0.104, and the post-test was 0.189. Thus, all collected data were considered normally distributed.

Next, a homogeneity test was carried out to examine if the samples had equal variances. Levene's test was used for this purpose. The results indicated a significance value of 0.599 in the pre-test and 0.168 in the post-test. This means that the significance value in both tests already met the minimum criteria, which was greater than 0.05. Therefore, the data of this research were homogeneous.

Since the data were distributed normally and homogeneous, inferential statistical analysis utilizing the independent sample t-test was held to check whether both groups significantly differed in reading comprehension skills. The test indicators were outlined as follows:

- a. Alternative hypothesis (H_a) accepted: Sig. 2-tailed value < 0.05, indicating successful research with a significant difference in reading comprehension abilities between the two classes.
- b. Null hypothesis (H_0) accepted: Sig. 2-tailed value > 0.05, indicating no significant difference between the two classes in reading comprehension abilities.

Additionally, Eta Squared was also utilized to calculate the effect size of QuizWhizzer media implementation on students' reading comprehension skills. The effect size calculation used Cohen's D formula.

IV. RESULTS

This research indicated a significant improvement in reading comprehension among students who taught using QuizWhizzer compared to those who taught using traditional methods. This showed by the pre-test and post-test scores of both groups that were compared. Firstly, the test mean scores of both groups were calculated. Table 1 shows the mean score calculation results.

Table 1. Mean score analysis of pre-test results between the experimental and control groups

Group	N	Mean	Std. Deviation	Std. Error Mean
Experimental	22	68.73	13.836	2.950
Control	23	64.26	13.893	2.897

According to Table 1, the experimental group's average score was 68.73 (SD=13.836) on the reading comprehension pre-test, whereas the other group achieved an average score of 64.26 (SD=13.893). This means the average score of the experimental class was slightly greater than that of the control class. Hereafter, an independent sample t-test was performed to further analyze whether the pre-test results of the experimental and control groups differed significantly. See Table 2 for the test results.

Table 2. Independent sample t-test on pre-test scores between the experimental and control groups

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Difference	95% Error Interval Difference	Confidence of the
						Lower	Upper	the
Equal variances assumed		1.080	43	.286	4.466	4.135	-3.872	12.805
Equal variances not assumed		1.080	42.926	.286	4.466	4.135	-3.872	12.805

Based on data served in Table 2, the significance 2-tailed value was 0.286, which exceeded the criteria value of 0.05. Hence, it could be interpreted that there was no significant difference among the two groups in pre-test scores. In other words, it was confirmed that both the experimental and control groups had equal capabilities before the treatment was administered. This result demonstrated that the sampling procedure was effective in creating equivalent groups for comparison. By establishing a baseline of equal capabilities, the research could more accurately measure the impact of the treatment on students' reading comprehension abilities.

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The following process was to examine the post-test results. The average scores of post-test data between both groups were also first evaluated to indicate students' reading comprehension mean score improvement after the series of treatments. The result of the post-test mean scores analysis is in Table 3.

Table 3. Mean score analysis of post-test results between the experimental and control groups

Group	N	Mean	Std. Deviation	Std. Error Mean
Experimental	22	82.45	9.334	1.990
Control	23	75.52	10.357	2.160

As depicted in Table 3, the experimental group obtained a greater reading comprehension post-test mean score of 82.45 (SD=9.334) than the control group, which achieved a mean score of 75.52 (SD=10.357). This finding revealed that the experimental group, which received treatments, improved their reading comprehension skills greater than the control group. Moreover, it can be assumed that using QuizWhizzer as a learning media positively affected students' reading comprehension skills. Next, the independent sample t-test was employed to examine further the post-test results of both classes. This statistical approach confirmed whether the observed difference in mean scores was statistically significant, thereby providing strong evidence for the effectiveness of QuizWhizzer media in enhancing reading comprehension. See Table 4 for the independent sample t-test result.

Table 4. Independent sample t-test on post-test scores between the experimental and control groups

t-test for Equality of Means							
	t	df	Sig. (2-tailed)	Mean Difference	Std. Difference	95% Error Interval Difference	Confidence of the
						Lower	Upper
Equal variances assumed	2.355	43	.023	6.933	2.943	.997	12.869
Equal variances not assumed	2.361	42.854	.023	6.933	2.937	1.010	12.856

Data in Table 4 indicated a significant difference in post-test scores between the two groups, proven by a 2-tailed significance value of 0.023, which was below 0.05. Shown by this result, it can be inferred that using QuizWhizzer as a learning media significantly improved students' reading comprehension. Thereupon, the alternative hypothesis (H_a) can be achieved. Given this result, it can be seen that the use of QuizWhizzer as a learning media has a measurable effect on students' reading comprehension.

Hereafter, to know how far the use of QuizWhizzer media affect students' reading comprehension, the Eta Squared was calculated as follows.

$$\begin{aligned} \text{Eta Squared} &= \frac{t^2}{t^2 + (N_1 + N_2 - 2)} \\ &= \frac{2.355^2}{2.355^2 + (22 + 23 - 2)} = \frac{5.546025}{5.546025 + 43} \\ &= \frac{5.546025}{48.546025} = 0.11 \end{aligned}$$

Based on the above calculation, the Eta Squared value was 0.11, and it belonged to moderate effect classification. Thus, the use of QuizWhizzer media had a moderate effect on the experimental group's reading comprehension skills improvement.

In order to know which aspects of reading comprehension significantly improved, a classification of students' performance in each aspect of reading comprehension ability was carried out. This was used to compare the reading comprehension performance of both groups further. Table 5 presents the percentage of students' achievement in each indicator of reading comprehension ability.

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Table 5. Achievement on reading comprehension aspects in the post-test between the experimental and control groups

Aspects	Percentage of Students' Correct Answer	
	Experimental Group	Control Group
Main idea/topic	95%	95%
Supporting ideas	88%	75%
Vocabulary/phrases	77%	65%
Inferences/implied details	61%	58%
Specifically stated details	94%	80%
Unstated details	71%	64%
Grammatical features	68%	63%

As shown by the data in Table 5, students in both groups had similar strengths and weaknesses regarding reading comprehension abilities. Their reading comprehension achievement indicated that students from both groups excelled at identifying the main idea/topic of the text. The experimental and control classes got the same percentage of 95% for answering correctly the questions about the main idea/topic. At the same time, the experimental and control groups showed weak achievement in identifying implied information from the text. In the experimental group, the percentage of students with correct answers for the aspect of inferences/implied details was 61%. Conversely, the control group only achieved the correct answer of 58% for identifying implied information.

Nevertheless, the experimental class surpassed the other class in almost all facets of reading comprehension. In comparison to the control class, the experimental class accomplished higher percentages of correct answers in the aspect of supporting ideas (88%), vocabulary/phrases (77%), inferences/implied details (61%), specifically stated details (94%), unstated details (71%), and grammatical features (68%). Meanwhile, both groups got similar correct answer percentages in the aspect of the main idea/topic (95%). Hereafter, it could be seen that the experimental class significantly enhanced the reading comprehension aspects of specifically stated details, supporting ideas, and vocabulary/phrases. All in all, the implementation of QuizWhizzer as a learning media helped students improve their reading comprehension skills better than conventional learning, especially in the aspects of specifically stated details, supporting ideas, and vocabulary/phrases.

Furthermore, students' reading comprehension test results were also classified according to specific score criteria to provide a clearer picture of their performance level. The success indicator was based on the minimum score at the school where this research was conducted. The classification of post-test results between the two groups is shown in Table 6.

Table 6. Classification of reading comprehension achievement in the post-test between the experimental and control groups

Criteria	Range Score	Experimental Group		Control Group	
		Number of Students	Percentage (%)	Number of Students	Percentage (%)
Excellent	90-100	6	27.3	2	8.7
Good	75-89	13	59.1	11	47.8
Fair	61-74	2	9.1	8	34.8
Poor	41-60	1	4.5	2	8.7
Very Poor	≤ 40	0	0	0	0
Total		22	100	23	100

A score of 75 was the minimum criterion for achieving learning objectives at the participants' school. Based on data in Table 6, in the experimental group, there were only 3 students who did not meet the minimum score of 75 in the post-test. Moreover, 6 students (27.3%) in this group were successfully improved as excellent in reading comprehension ability. In contrast, almost half of the control class did not reach the minimum criteria in the post-test. There were 10 students who still achieved the reading comprehension score under the minimum criteria. Besides, there were only 2 students (8.7%) in the control class who succeeded in being excellent in reading comprehension skills. This indicated that students who taught using QuizWhizzer outperformed students who taught conventionally in terms of reading comprehension ability.

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V. DISCUSSION

The experimental group, which was exposed to the QuizWhizzer medium, showed a significant enhancement in their reading comprehension skills in comparison to the control group, which received conventional teaching methods. It can be said that the use of QuizWhizzer media had a beneficial impact on the improvement of students' reading comprehension skills. The findings corroborate the studies conducted by Li and Chu (2020) and León et al. (2022), which asserted that online game-based platforms have the potential to augment students' reading motivation and improve their reading comprehension abilities. Their findings which incorporated board games and Reading Battle (RB) as online learning media provide additional evidence that incorporating interactive modern media into the learning process can result in significant advantages. In this regard, QuizWhizzer is also an interactive online platform specifically developed for learning through game-based activities. This type of media has the ability to captivate students in learning activities due to the universal appeal of games among students of different educational levels (Chen & Hsu, 2020; Degirmenci, 2021; Wang & Tahir, 2020). Moreover, Ebrahimzadeh and Alavi (2016) mention that QuizWhizzer, as a game-based learning media, can enhance the learning experience by creating a sense of fun, making the process more engaging and less monotonous. The race games on QuizWhizzer stimulate the students' competitive instincts. This competitive atmosphere motivated students to strive for the greatest scores in every reading comprehension practice provided. While their study focus on the effect of game-based platform on students' vocabulary, this research focus on the impact of QuizWhizzer on EFL students' reading comprehension, specifically in descriptive texts.

Then, the inclusion of a leaderboard element, displayed upon the completion of the quiz race, served as an additional incentive for students to strive for the highest score in each reading comprehension practice, with the aim of securing a top position on the podium. The students' aspiration to achieve the highest score motivated them to instinctively enhance their reading comprehension abilities through consistent practice and repetition (Drajati et al., 2021). That was why the findings of this research showed that the experimental class, which used QuizWhizzer for learning, exhibited greater improvement in reading comprehension abilities compared to the control class. This finding can serve as new evidence that online game-based media, particularly QuizWhizzer, can transform learning into a pleasurable and gratifying experience. Specifically, QuizWhizzer media effectively engaged students in the learning process by integrating competition and providing immediate feedback, resulting in improved retention and comprehension of the reading material.

In addition to its incorporation of gamified features, QuizWhizzer became appealing to students because it allows the teacher to integrate diverse multimedia elements into reading practices. The teacher can add images to the practice text, which aids in the visualization of material for students. This, in turn, helps to contextualize the information and make abstract concepts more tangible (David & Sulaiman, 2021). Afterwards, visual aids are especially advantageous for students who learn best through visual means since they help improve comprehension and memory of the reading material (Santi & Reflinda, 2022). Additionally, the QuizWhizzer platform allows for the inclusion of audio and YouTube videos, enhancing the potential for a dynamic and engaging learning environment. Audio components are advantageous for students who learn best through hearing, whereas videos cater to students who benefit from both visual and auditory learning styles. Integrating videos into reading comprehension exercises can provide additional context, illustrate complex ideas, and captivate students through visual narrative (Sari, 2021). On the other hand, kinesthetic learners are more effectively involved in the interactive activities provided by the QuizWhizzer platform. This comprehensive strategy guarantees that a wider array of students can derive advantages from the learning activities, hence maintaining students' engagement with the learning content and improving overall classroom performance.

QuizWhizzer also offers a diverse range of question types, such as multiple-choice, numerical answer, ordering, audio answer, multiple response, short text answer, open-ended, true or false, drag and drop, and random questions. This variant guarantees that the reading comprehension practice is not only beneficial but also demanding and invigorating. Various question kinds necessitate students to employ diverse cognitive abilities, ranging from simple recollection of facts to the more complex tasks of interpreting and synthesizing knowledge (Pakpahan et al., 2021). The inclusion of many question kinds also facilitates the development of a wide array of comprehension abilities among students and prevents the learning activities from getting tedious (Damaris, 2023). These features can be utilized to captivate students' enthusiasm for acquiring knowledge. When students enjoy and enthusiastically participate in the learning processes, they are more inclined to be actively involved, resulting in a greater capacity to assimilate the imparted knowledge readily. Active engagement and genuine delight are essential elements that contribute to the effectiveness of the learning process. When students possess motivation and interest, they exhibit increased diligence and perseverance in surmounting obstacles, resulting in enhanced comprehension and academic achievement (Toste et al., 2020). As a result, students could improve their reading comprehension abilities by utilizing QuizWhizzer media during a number of treatments. This result is consistent with the findings of Putra et al. (2023). It has been observed that the use of QuizWhizzer media has a positive impact on students' enthusiasm in the classroom. Hence,

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QuizWhizzer can be regarded as a good choice for learning media that aids students in improving their reading comprehension skills by boosting their learning motivation and enthusiasm.

Moreover, the user-friendly nature and widespread availability of QuizWhizzer greatly enhance its efficacy as a learning media. Dewi et al. (2023) stated that the utilization of online learning platforms, such as QuizWhizzer, has the potential to enhance teachers' creative abilities in the context of teaching. QuizWhizzer media enables teachers to efficiently generate personalized quiz races and assignments that cater to the specific needs of their students. The user-friendly interface of the QuizWhizzer platform enables teachers to prioritize teaching and minimize technological challenges. Additionally, students can access QuizWhizzer from any device as long as there is an internet connection. This allows for flexibility in terms of how and where they learn.

For further explanation, this research additionally examined students' performance in each specific aspect of reading comprehension for a more comprehensive understanding. The seven components of reading comprehension encompassed the main idea/topic, supporting ideas, vocabulary/phrases, inferences/implied details, specifically stated details, unstated details, and grammatical elements (Brown & Abeywickrama, 2019). The results showed that students who utilized QuizWhizzer as a learning media attained greater rates of correct answers in almost all aspects of reading comprehension compared to those who learned through the conventional method. Nevertheless, a noteworthy anomaly was observed in relation to the main idea/topic aspect. Both the experimental and control groups attained comparable degrees of utmost accomplishment in identifying the main idea/topic. Both groups were taught the skimming technique, which was the cause of this outcome. Skimming, a reading technique characterized by rapidly perusing a text to obtain a broad understanding of its content, proved equally effective for students in both the experimental and control groups. This discovery is consistent with the research conducted by Yurko and Protsenko (2021), which demonstrated that the skimming strategy enables students to easily identify the main idea or topic of a text without having to read it in its entirety. Moreover, the skimming strategy enables students to identify the main idea/topic by concentrating on crucial elements of the text, such as titles, headings, and initial words. In descriptive texts, the main idea/topic can frequently be discerned solely by looking at the title or skimming the identification part of the text. This technique is especially efficient for rapidly comprehending the essence of a text, which was why students in both categories excelled at identifying the main idea/topic. The consistent success of this uniform achievement indicates that QuizWhizzer improved multiple facets of reading comprehension. However, the advantageous impact of specific reading techniques, such as skimming, remained intact.

Subsequently, this research revealed that the experimental group made significant progress in finding specifically stated details, finding supporting ideas, and guessing vocabulary/phrases. This research also presented a scanning technique that enabled students to find specific details and supporting ideas in the text quickly. The scanning technique allows students to disregard extraneous information and concentrate specifically on the specific details they require. This finding corroborated the assertion made by Yurko and Protsenko (2021) that the scanning strategy can augment students' reading comprehension abilities by enabling them to discern particular information inside a text efficiently. The utilization of the scanning technique facilitated students in finding specifically stated details and supporting ideas, while the incorporation of QuizWhizzer media enhanced students' engagement in the reading activity and sustained their motivation to improve their reading abilities. This combination was highly effective in enhancing students' reading comprehension skills, primarily in finding specifically stated details and supporting details.

Next, the experimental group's superior reading comprehension ability in the vocabulary/phrases element aligns with prior research conducted by Oktika et al. (2023). Their research demonstrated that the utilization of QuizWhizzer as a learning media effectively improved students' vocabulary. Due to the engaging and fun nature of the learning activities on QuizWhizzer, students enjoyed acquiring new vocabulary and phrases as they read through the exercises. Apart from that, the primary factor contributing to the enhancement of vocabulary and phrases in the experimental group was the competitive environment nurtured by QuizWhizzer media. This environment fostered greater engagement among students during the reading comprehension exercises. The students' aspiration to attain exceptional scores and secure a prominent rank on the leaderboard drove them to actively seek clarification from the teacher regarding any unfamiliar vocabulary or phrases encountered in the practice text. Active participation and a proactive attitude towards seeking assistance are crucial for enhancing vocabulary skills, as they facilitate a deeper understanding and more meaningful learning. Through questioning and seeking clarification, students can establish connections between new vocabulary or phrases and their preexisting knowledge, facilitating the retention and use of these words in the future. As a result, students who learn using QuizWhizzer enhanced their vocabulary better than students who follow traditional learning methods.

Furthermore, this research finding aligns with the study of Adawiyah and Yani (2024), who demonstrated that the utilization of QuizWhizzer can enhance students' academic achievements in the area of subject-verb agreement. According to the analysis of

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reading comprehension achievement, the class that used QuizWhizzer media achieved higher scores on grammatical features than the control class. In addition, the experimental group demonstrated that 19 out of 22 students succeeded in reaching the Minimum Criteria for Learning Objectives (KKTP). The significant success rate indicated that students who were instructed via QuizWhizzer media not only actively participated in the learning content but also comprehended it more effectively, resulting in good performance in reading comprehension assessments. Hence, this outcome further corroborated the findings of Dewi et al. (2023), suggesting that the utilization of online learning platforms (i.e. QuizWhizzer, Kahoot!, WhatsApp, and Google Classroom) confers benefits to students' comprehension of the learning material.

Additionally, Grabe and Stoller (2022) stated two core principles in teaching reading comprehension. This research demonstrated the practicality of applying such ideas in teaching reading comprehension. The first principle was developing students' reading motivation by incorporating interactive learning technology. This research employed a game-based platform called QuizWhizzer to actively involve students in learning activities. Moreover, this research could conduct collaborative learning, provide various reading materials, create a comfortable and fun learning environment, and show students' reading improvement using QuizWhizzer media in order to raise their reading motivation. Firstly, collaborative learning was organized during the treatment by asking students to do a quiz using QuizWhizzer media in groups. In this activity, one representative student from each group would join the quiz room, but the entire group was responsible for collaboratively finishing the quiz. The interactive and competitive features of QuizWhizzer enhanced the engagement of the reading activities through collaborative learning. Secondly, the versatility of QuizWhizzer media enabled teachers to offer a wide range of reading materials to students. Unlike conventional approaches that may be restricted by tangible resources, QuizWhizzer did not impose any limitations on the text's length. Additionally, this platform offered the capability to incorporate images and audio. These benefits allowed teachers to offer a diverse selection of reading materials that were customized to accommodate various learning styles. Third, as mentioned earlier, the use of QuizWhizzer can make a comfortable and fun learning environment because this platform uses gamified features that students generally like. The engaging learning environment created by QuizWhizzer motivated students to actively and eagerly participate in reading activities. Lastly, one of the notable benefits of utilizing QuizWhizzer was the immediate feedback it provided. Students were able to observe their learning progress as QuizWhizzer provided immediate feedback on their scores following each practice session. This instant feedback enabled students to monitor their learning progress, comprehend their areas of proficiency and areas for improvement, and maintain their motivation to enhance their performance.

The second principle implemented in this research was the promotion of discussion activities. Throughout the treatment, students were encouraged to actively engage in reviewing their answers upon completing each practice session. This activity not only fostered a deeper understanding of the reading material but also facilitated critical thinking and collaborative learning (Herlinawati et al., 2022). The implementation of those two principles in teaching reading comprehension resulted in a noticeable improvement in students' reading comprehension abilities. Overall, the use of QuizWhizzer media, in conjunction with the implementation of supporting teaching principles and techniques, demonstrated more effectiveness in enhancing students' reading comprehension. The findings of this research underscore the importance of combining interactive learning media with effective teaching strategies to enhance students' academic performance and overall learning experience.

V. CONCLUSION

The research revealed that the utilization of QuizWhizzer as a learning media effectively enhanced EFL students' proficiency in reading comprehension, especially in the context of descriptive texts. This is due to the fact that QuizWhizzer can actively involve students in the process of learning. QuizWhizzer enhanced students' enjoyment of learning by utilizing game-based features. Moreover, utilizing QuizWhizzer to organize engaging quiz races can stimulate students' competitive instincts as they strive to quickly get the correct answers in order to achieve the highest ranking. This condition trained students' reading comprehension skills naturally.

Subsequently, this research demonstrated that incorporating technology in the classroom to facilitate the teaching and learning process can meet the demands of students. Integrating learning technology makes students participate actively in reading activities, making their reading comprehension skills can improve. Utilizing QuizWhizzer as a learning media can help students effectively and engagingly incorporate it into the learning process since it offers flexible time.

The research findings offer several recommendations for educators and future researchers. Firstly, it is advisable to highlight the significance of employing game-based media as it can foster enjoyable learning experiences in English classes. An alternative choice for online game-based media is QuizWhizzer. Therefore, teachers are advised to employ QuizWhizzer as a medium for various English teaching and learning activities, including ice-breaking and assessment. English teachers are suggested to utilize QuizWhizzer as a tool to aid students in enhancing their reading proficiency across different types of text. Subsequently, this

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study discovered that despite the students' overall enhancement in reading comprehension following the intervention, they still lacked in identifying inferences or implied details. Therefore, future researchers are highly recommended to conduct a study regarding this problem. Last, it is also suggested that future researchers continue this research to find out students' perceptions regarding learning reading comprehension using QuizWhizzer media.

REFERENCES

- 1) Adawiyah, R. M., & Yani, A. (2024). Enhancing Students' Proficiency in Subject-Verb Agreement Using "QuizWhizzer" as a Pedagogical Tool: Classroom Action Research. *International Journal of Indonesian Education and Teaching*, 8(1), 152–163. <https://doi.org/10.24071/ijiet.v8i1.7167>
- 2) Adlika, N. M. (2023). Independent Curriculum Assessment: Implementation and Criteria for Achieving Learning Objectives (KKTP) at SMA Negeri 3 Sungai Kakap. *Jurnal Scientia*, 12(4), 891–895. <http://infor.seaninstitute.org/index.php/pendidikan/article/view/2050%0Ahttps://infor.seaninstitute.org/index.php/pendidikan/article/download/2050/1770>
- 3) Al-Khamaiseh, H. S., & Al-Jamal, D. A. (2022). The Effect Of Using Kahoot on Jordanian EFL Ninth-Grade Students' Reading Comprehension. *Journal of Positive School Psychology*, 6(6), 757–770. <http://journalppw.com/>
- 4) Alfian, A., Rasyid, M. N. A., Habibi, A., Noprival, N., & Yusuf, M. (2022). Classroom Assessment Practices of EFL Lecturers with Current Curriculum Implementation: Where Policy Meets Practice. *REILA : Journal of Research and Innovation in Language*, 4(3), 320–334. <https://doi.org/10.31849/reila.v4i3.11005>
- 5) Ary, D., Jacobs, L. C., Sorensen, C., & Razavieh, A. (2010). *Introduction to Research in Education* (8th ed.). Wadsworth Cengage Learning.
- 6) Bartrum, T. (2019). About: Our Story. QuizWhizzer Official Blog. <https://blog.quizwhizzer.com/about-our-story/#:~:text=QuizWhizzer is a tool designed,progress by answering the questions!>
- 7) Brown, H. D., & Abeywickrama, P. (2019). *Language Assessment: Principles and Classroom Practices* (3rd ed.). Pearson Education.
- 8) Ceylan, M., & Baydik, B. (2018). Examination of Reading Skills of Students Who are Poor Readers in Different Text Genres. *Cypriot Journal of Educational Sciences*, 13(2), 422–435. <https://doi.org/10.18844/cjes.v13i2.3119>
- 9) Chen, C. M., Li, M. C., & Chen, T. C. (2020). A Web-Based Collaborative Reading Annotation System with Gamification Mechanisms to Improve Reading Performance. *Computers and Education*, 144, 1–17. <https://doi.org/10.1016/j.compedu.2019.103697>
- 10) Chen, Y. L., & Hsu, C. C. (2020). Self-regulated mobile game-based English learning in a virtual reality environment. *Computers and Education*, 154, 1–15. <https://doi.org/10.1016/j.compedu.2020.103910>
- 11) Creswell, J. W. (2012). *Educational Research Planning, Conducting, and Evaluating Quantitative and Qualitative Research* (4th ed.). Pearson.
- 12) Damaris, H. E. (2023). Variety of Questions in English Online Courses: The Case of the University Of Yaounde I. *International Social Sciences and Education Journal*, 1(1), 01–09. <https://doi.org/10.61424/issej.v1i1.9>
- 13) David, M., & Sulaiman, N. A. (2021). The Functions of Visualization in Assisting Reading Comprehension among Young Learners. *International Journal of Academic Research in Business and Social Sciences*, 11(10), 68–79. <https://doi.org/10.6007/ijarbss/v11-i10/10983>
- 14) Degirmenci, R. (2021). The Use of Quizizz in Language Learning and Teaching from the Teachers' and Students' Perspectives: A Literature Review. *Language Education and Technology (LET Journal)*, 1(1), 1–11. <http://langedutech.com>
- 15) Dewi, P. K., Suwandi, & KA, A. P. (2023). Benefits and Drawbacks of Online Teaching Reading in the Post-COVID-19 Era. *Foremost Journal*, 4(1), 15–27. <https://doi.org/10.33592/foremost.v4i1.3300>
- 16) Drajeti, N. A., Rakerda, H., Sulistyawati, H., Nurkamto, J., & Ilmi, M. (2021). Investigating the adoption of TPACK-21CL by English pre-service teachers in a COVID-19 teaching practicum. *Indonesian Journal of Applied Linguistics*, 11(1), 124–133. <https://doi.org/10.17509/ijal.v11i1.34625>
- 17) Ebrahimzadeh, M., & Alavi, S. (2016). Motivating EFL students: E-learning enjoyment as a predictor of vocabulary learning through digital video games. *Cogent Education*, 3(1), 1–14. <https://doi.org/10.1080/2331186X.2016.1255400>
- 18) Efendi, J., & Sutiarty, U. (2022, November 11-12). Implementation of Quizwhizzer Application in Japanese Language Cross Interest Class Grade 11th at SMAN 1 Batu [Paper presentation]. 2nd International Conference on Language, Literature, Education, and Culture, Malang, Indonesia. <http://dx.doi.org/10.4108/eai.11-11-2022.2329349>
- 19) Fulwiler, T. (2002). *College Writing: A Personal Approach to Academic Writing* (3rd ed.). Boynton/Cook Publishers.
- 20) Gall, M. D., Gall, J. P., & Borg, W. R. (2003). *Educational Research: An Introduction* (7th ed.). Pearson Education.

Empowering EFL Students' Reading Comprehension Abilities with Quizwhizzer

- 21) Ghafournia, N. (2023, August 6). The Importance of Teaching Reading Strategies in Reading Comprehension Process [Paper presentation]. 11th International Conference of Modern Research in Psychology, Counseling, and Educational Sciences, Neyshabur, Iran.
https://www.researchgate.net/publication/372948215_The_Importance_of_Teaching_Reading_Strategies_in_Reading_Comprehension_Process?enrichId=rgreq-a8dd2d5d30986f435ef69a705cfe454a-XXX&enrichSource=Y292ZJQYWdIOzM3Mjk0ODIxNTtBUzoxMTQzMTI4MTE3OTcxMzcwMUAxNjkx
- 22) Grabe, W., & Stoller, F. L. (2022). Principles for Reading Instruction. In E. Hinkel (Ed.), *Handbook of Practical Second Language Teaching and Learning* (pp. 357–369). Routledge.
- 23) Gultiano, S. O. (2022). Reading Comprehension in the English Subject Among Grade 4 Students in Carmen Elementary School. *International Journal Of Advance Research And Innovative Ideas In Education*, 8(6), 375–390.
<https://doi.org/16.0415/IJARIIE-18587>
- 24) Herlinawati, H., Isnawati, U. M., Yudar, R. S., Syahdan, S., & Syaifullah, S. (2022). Students' Online Experiences in Online Collaborative Writing with Focus on Language Rules. *REILA: Journal of Research and Innovation in Language*, 4(2), 209–218. <https://doi.org/10.31849/reila.v4i2.9833>
- 25) Imran. (2023). Merdeka Curriculum: Assessment Implementation and Reporting System At Mujahidin Pontianak Private High School. *Jurnal Scientia*, 12(4), 874–880. <https://doi.org/10.58471/scientia.v12i04.2046>
- 26) Klimova, B., & Zamborova, K. (2020). Use of Mobile Applications in Developing Reading Comprehension in Second Language Acquisition - A Review Study. *Education Sciences*, 10(391), 1–11. <https://doi.org/10.3390/educsci10120391>
- 27) Komilovna, K. K. (2023, October 19). Mastering Reading Comprehension: a Vital Skill for Academic Success [Paper presentation]. *Academic Research in Modern Science*, United States. <https://doi.org/10.5281/zenodo.10020449>
- 28) Kung, F. W. (2019). Teaching Second Language Reading Comprehension: the Effects of Classroom Materials and Reading Strategy Use. *Innovation in Language Learning and Teaching*, 13(1), 93–104.
<https://doi.org/10.1080/17501229.2017.1364252>
- 29) Leavy, P. (2017). *Research Design Quantitative, Qualitative, Mixed Methods, Arts-Based, and Community-Based Participatory Research Approaches*. The Guilford Press.
- 30) León, A. M., Ferrer, J. M. R., Parra, J. M. A., Campoy, J. M. F., Trigueros, R., & Martínez, A. M. M. (2022). Play and learn: Influence of gamification and game-based learning in the reading processes of secondary school students. *Revista de Psicodidáctica*, 27(1), 38–46. <https://doi.org/10.1016/j.psicoe.2021.08.001>
- 31) Li, X., & Chu, S. K. W. (2020). Exploring the effects of gamification pedagogy on children's reading: A mixed-method study on academic performance, reading-related mentality and behaviors, and sustainability. *British Journal of Educational Technology*, 0(0), 1–19. <https://doi.org/10.1111/bjet.13057>
- 32) Nafa, M. S. (2022). *A Broad Guide to Reading and Comprehension*. Cambridge Scholars Publishing.
- 33) Noprianto, E. (2017). Student's Descriptive Text Writing In SFL Perspectives. *Indonesian Journal of English Language Teaching and Applied Linguistics*, 2(1), 65–81. <https://doi.org/10.21093/ijeltal.v2i1.53>
- 34) Numonjonovna, M. M. (2023). The Importance of Reading Comprehension Exercise for Intermediate Learners. *Web of Scientist: International Scientific Research Journal*, 4(5), 469–473. <https://doi.org/10.17605/OSF.IO/ZSBR6>
- 35) OECD. (2021). *21st-Century Readers: Developing Literacy Skills in a Digital World*. OECD Publishing.
<https://www.oecd.org/publications/21st-century-readers-a83d84cb-en.htm>
- 36) OECD. (2022). *Reading Performance (PISA)*. OECD Publishing. <https://www.oecd.org/pisa/>
- 37) Oktika, F. I., Karima, R. F. H., & Musarokah, S. (2023, March 18). Using Quizwhizzer Game to Improve Students' Vocabulary Mastery of Seventh Grade of SMPN 2 Rembang in the Academic Year 2021-2022 [Paper presentation]. 3rd English Teaching, Literature, and Linguistics (ETERNAL) Conference, Semarang, Indonesia.
<https://conference.upgris.ac.id/index.php/etll/article/view/3534/2215>
- 38) Pakpahan, S. F., Pakpahan, S., Purba, I. D. S., & Nasution, J. (2021). Analysis Reading Comprehension Questions by Using Revised Bloom's Taxonomy on Higher Order Thinking Skill (HOTS). *Journal of Language Teaching and Learning, Linguistics and Literature*, 9(1), 259–271. <https://doi.org/10.24256/ideas.v9i1.1904>
- 39) Puspitarini, Y. D., & Hanif, M. (2019). Using Learning Media to Increase Learning Motivation in Elementary School. *Anatolian Journal of Education*, 4(2), 53–60. <https://doi.org/10.29333/aje.2019.426a>
- 40) Putra, Y. A. S., Rulviana, V., & Kartikasari, A. (2023, August 4). Efektivitas Penggunaan Game Quizwhizzer Sebagai Media Evaluasi Terhadap Antusiasme Siswa Sekolah Dasar [Paper presentation]. *Prosiding Konferensi Ilmiah Dasar*, Madiun Indonesia. <http://prosiding.unipma.ac.id/index.php/KID>

Empowering EFL Students' Reading Comprehension Abilities with Quizwhizzer

- 41) Putri, D. N., & Susanti, A. (2022). Edmodo As Online Assessment Tool: To Improve Efl Students' Reading Comprehension. *Satya Widya*, 38(1), 12–24. <https://doi.org/10.24246/j.sw.2022.v38.i1.p12-24>
- 42) Rochimah, H., & Muslim, S. (2021). Students' Perceptions in Using the Kahoot! Game on Reading Comprehension Learning. *Al-Ishlah: Jurnal Pendidikan*, 13(3), 2213–2222. <https://doi.org/10.35445/alishlah.v13i3.1115>
- 43) Sánchez, G. P., Cózar-Gutiérrez, R., Olmo-Muñoz, J. del, & González-Calero, J. A. (2021). Impact of a gamified platform in the promotion of reading comprehension and attitudes towards reading in primary education. *Computer Assisted Language Learning*, 36(4), 669–693. <https://doi.org/10.1080/09588221.2021.1939388>
- 44) Santi, M., & Reflinda. (2022). Using Visualization Strategy to Improve Students' Reading Skill in Comprehending Detailed Information. *Modality: International Journal of Linguistics and Literature*, 2(1), 63–71. <https://doi.org/10.30983/mj.v2i1.5115>
- 45) Sari, A. S. (2021). Animated Video in Teaching Reading Comprehension Viewed from the Students' Reading Interest. *ELE Reviews: English Language Education Reviews*, 1(2), 88–98. <https://doi.org/10.22515/ele-reviews.v1i2.4062>
- 46) Sari, V. N. I., Suwandi, S., & Sumarwati. (2021, December 8). Multimedia-Based Interactive Learning Media in The Text Material of The Observation Report [Paper presentation]. International Conference of Humanities and Social Science, Surakarta, Indonesia. <http://dx.doi.org/10.4108/eai.8-12-2021.2322747>
- 47) Septia, N. W., Indrawati, Juriana, & Rudini. (2022). An Analysis of Students' Difficulties in Reading Comprehension. *EEdJ: English Education Journal*, 2(1), 11–22. <https://doi.org/10.32923/eedj.v2i1.2519>
- 48) Sufyadi, S., Lambas, Rosdiana, T., Rochim, F. A. N., Novrika, S., Isyowo, S., Hartini, Y., Primadonna, M., & Mahardhika, R. L. (2021). Panduan Pembelajaran dan Asesmen Jenjang Pendidikan Dasar dan Menengah (SD/MI, SMP/MTs, SMA/SMK/MA). Pusat Asesmen dan Pembelajaran Badan Penelitian dan Pengembangan dan Perbukuan Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi.
- 49) Sulistyaningsih, & Perdana, F. P. (2020). Teaching Speaking Descriptive Text Using Facebook for Senior High School Students. *JournEEL (Journal of English Education and Literature)*, 2(1), 1–10. <https://doi.org/10.51836/journeel.v2i1.76>
- 50) Susanti, A., Retnaningdyah, P., Ayu, A. N. P., & Trisusana, A. (2020). Improving EFL Students' Higher Order Thinking Skills Through Collaborative Strategic Reading in Indonesia. *International Journal of Asian Education*, 1(2), 43–52. <https://doi.org/10.46966/ijae.v1i2.37>
- 51) Toste, J. R., Didion, L., Peng, P., Filderman, M. J., & McClelland, A. M. (2020). A Meta-Analytic Review of the Relations Between Motivation and Reading Achievement for K–12 Students. *Review of Educational Research*, 90(3), 420–456. <https://doi.org/10.3102/0034654320919352>
- 52) Wang, A. I., & Tahir, R. (2020). The effect of using Kahoot! for learning – A literature review. *Computers and Education*, 149, 1–39. <https://doi.org/10.1016/j.compedu.2020.103818>
- 53) Yurko, & Protsenko. (2021). Reading Comprehension: the Significance, Features and Strategies. *Репрезентація Освітніх Досягнень, Мас-Медія Та Роль Філології у Сучасній Системі Наук*, 1(1), 106–114. <https://doi.org/10.36074/rodmmrfsn.ed-1.10>



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