The Effectiveness of Quizizz as Web-Based Learning Media in Teaching Reading Comprehension

*Sri Wahyuni [1]
English Education Department, Tarbiyah Faculty, IAIN Kediri, Indonesia
* Email: swy090984@gmail.com

Dwi Styaningsih [2]
English Education Department, Tarbiyah Faculty, IAIN Kediri, Indonesia
Email: dwistya09@gmail.com

(*) Email Correspondent: swy090984@gmail.com

Abstract

This study aims at investigating the effectiveness of using Quizizz as a Web- Based Learning Media in Reading Comprehension Learning on recount text. This study used a quasi-experimental research design. Class VIII-J and class VIII-K of a State Junior High School in Kediri were used as research samples. Class VIII K was the experimental group consisted of 34 students and taught by using quizizz, and class VIII J was the control class consisted of 34 students and taught by using Gform. Two set of reading tests were used as pretest and posttest research instruments. The data analysis used the Mann Whitney non-parametric test in SPPS to test the hypothesis because the data was not normally distributed. The result shows that the null hypothesis can be rejected because the significant value obtained is 0.000 < 0.05. Quizizz is effective for teaching reading recount text with a large effect size adopted from the Cohen standard ($0.8 ≤ 0.84 ≤ 2.0$). According to the findings of this study, it can be concluded that Quizizz is an effective media for teaching recount text. It is also suggested that teachers can apply Quizizz as a learning media so that students are interested.

Keywords: Reading, Teaching Media, Recount Text, Quizizz

INTRODUCTION

Reading is one of the English skills that must be mastered by learners because reading allows them to learn new things, get information, increase knowledge, and also have certain pleasures (Juniarta, Dewi, and Mahendra, 2020). Reading can help students understand more deeply about learning which is useful for improving thinking skills and broadening horizons. Through increased understanding, students can improve their progress and development in all areas of learning. According to Neufeld (2005), reading comprehension is the process of developing an understanding of a text. Furthermore, reading comprehension is an elaborate skill that progresses from such a simple to a complicated exercise. Knowing a written material is not sufficient to grasp its gist; more in-depth comprehension is required (Agustin, 2022). Reading is considered a difficult activity because it is completely reliant on the student's ability to think and language skills, trying to make it one of the more important skills to learn. Reading is an in-depth interpretation of printed symbols (Nuttal, 2017). As an outcome, readers are able to understand and even remember what they have read.

Teaching reading is the main process to help someone how to read by getting information from a text to find the main idea, factual information and vocabulary. The teacher's responsibility as a teacher is to provide suggestions, challenge creativity, and think freely to help students in the learning process. In teaching reading, various strategies can be used by a teacher such as applying various methods, media, and games to make students interested. Strategies are actions that teachers take to achieve some or all of their pedagogical approaches (Harmer, 2007). Teaching reading is also a difficult task because educators must diversify their teaching methods to avoid boredom (Dewi and Kristiani, 2021). Not everyone is cut out for such a challenge because it has to be based on training, as well as experience.

Several problems arise in the process of teaching and learning reading. Students are bored with long texts used to teach reading, which causes students to fail to remember what they have read. As a result, students are less enthusiastic in learning. Students still have difficulty determining the main idea and content of the text. According to Widiani and Apsari (2022), there are two factors that cause this to happen, the internal factor is laziness and lack of curiosity, and the external factor is the lack of utilization of learning media. Ratnasari, Himawari, and Ghifari (2019) stated there are several aspects that are considered as students' difficulties in understanding the text there are, identifying generic structures,

determining ideas, finding supporting details, making inferences and finding references.

To overcome the problems above, teachers can use various teaching media to assist students in reading comprehensively. There are several media that can help reading comprehension, one of which is the use of the Quizizz application. The utilization of Quizizz as a medium of learning in school has successfully assisted teachers in increasing students' motivation to read and enhancing learning outcomes (Dewi and Kristiani, 2021). Some research has discovered Quizizz applications for enhancing students' reading comprehension. Quizizz is a digital website that can be utilized to create Quizizz to assess students' reading competency. It has several advantages for both students and teachers and also being a reader, simple to access, fun, increasing student motivation, and trying to measure personal ability (Damayanti, Hasna and Sopyawanda 2022).

This study takes some of the previous studies. The first research was conducted by Ratnasari, Hikmawati, and Ghifari (2019). This study aims to determine whether the Quizizz application can help students have better reading achievement in narrative text. The finding of this study revealed a statistically significant effect between before and after the test. In other words, there is a significant difference between teaching reading comprehension using Quizizz and Quizalize app. The second study is conducted by as Damayanti et al., (2022). She conducted a systematic literature review on the effectiveness of quizizz application as tool for reading assessment in senior high school. She found that Quizizz assists teachers in providing students with online quizzes to assess their understanding. Quizizz is also simpler to use for senior high school students because the majority of them have a device with an internet connection and it is easier to teach them how to use the application. The third study is conducted by Pavita and Nirmala (2021). This aim of this study is to improve students' vocabulary mastery by using Quizizz. According to this research, students' vocabulary mastery increased significantly after they were taught using the Quizizz application. The findings show that students have a positive perspective in using Quizizz, students memorize new vocabulary more easily because of an attractive display that makes students feel comfortable and enjoy teaching and learning activities.

The previous studies above have found that quizizz application can help students in comprehending narrative text dan effective learning application for senior high school students. However, study on different types of text such as recount text and for different level of students such as in junior high school is still needed to investigate. Therefore, this study aims to investigate whether Quizizz

is effective or not for teaching reading comprehension in recount text for junior high school students. Accordingly, this research intended to answer the following questions: Is Quizizz as web-based learning media effective to teach reading comprehension for the eighth-grade students of SMPN 4 Kota Kediri?

METHOD

This research employs quantitative experimental research design. The quantitative method used in this research is quasi-experimental. According to Creswell (2008: 313), a quasi-experimental study uses a control group and an experimental group but does not divide the sample randomly assigned between the two groups. The design of this study is presented in Table 1

Table 1. Research Design

Group	Pre-test	Treatment	Post-test
Experimental	◎	Quizizz	◎
Control	◎	Google Form	◎

Population and Sample

The population in this study were students of class VIII SMPN 4 KEDIRI. It consists of eleven classes, and each class consists of 34 students. The total number is 374 students. The sample of this research is two classes from class VIII SMPN 4 KEDIRI. The first class is class VIII K as the experimental group, while the second class is class VIII J as the control group.

The Treatment

In the treatment, the both groups, experimental and control group, were taught by using different learning applications. The experimental group was taught by using Quizizz application; meanwhile, the control group was taught by using Google Forms. Both groups got same teaching material which was recount text. The different was only the learning applications used.

Instruments

The research instrument was a reading test. The tests used were pre-test and post-test. The instrument for the pre-test was multiple choice questions. There were 25 items for pretest, and 25 items for posttest (total 50 items).Before starting treatment, students took a pre-test to assess their reading comprehension ability. The post-test was used to determine the effect of the experiment after the treatment hadbeen administered. Students must complete a post-test after getting the treatment. The post-test results in the experimental and control groups were evaluated and used as final data for this study.

After collecting try-out data, a validity test was carried out. Validity is used

todetermine whether or not a test was accepted. Item validity was used in this study to determinethe validity of the test index. The results showed that from 50 items, there were 38 valid items and 12 invalid items (excluded). The pre-test consisted of 25 questions taken from validquestions, while the post-test consisted of 25 questions taken from the rest items and randomly mixed with some items from pretest. .

Data Analysis

The process of analyzing data is known as data analysis. The information obtained from the test scores is quantitative. Pre-test and post-test data from the experimental and control groups are collected. The data gained from student participants were analyzed by using SPSS (Statistical Package for the Social Sciences). If the data were normal, ANCOVA is used to analyze the data. However, if the data were not normal, Mann Whitney is used.

FINDINGS AND DISCUSSION

The Normality Testing Result

In this study, the Kolmogorov-Smirnov One Sample Test was used to evaluate the assumption of normality. The purpose of the normality test is to determine whether the error variance of the data is normally distributed or not. The data is normally distributed if the significance level is $p>0.05$ and the data is not normally distributed if the significance level is $p<0.05$. Table 4.3 displays the results of the Kolmogorov-Smirnov One Sample Test. Table 2 displays the results of the Kolmogorov-Smirnov One Sample Test.

Table 2 Tests of Normality

	Classs	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Student Learning Outcomes	Pre-Test Experimental	.138	34	.102	.967	34	.395
	Post-Test Experimental	.148	34	.058	.939	34	.059
	Pre-Test Control	.144	34	.071	.964	34	.325
	Post-Test Control	.161	34	.026	.946	34	.096
a. Lilliefors Significance Correction							

Based on the normality test contained in the table above, the pre-test result of experimental group was 0.102. The post-test result of experimental group was 0.058. This means that 0.058 is more than 0.05. After knowing the normality of the experimental group, proceed to the control group. The pre-test result of control group was 0.071. This shows that 0.071 is more than 0.05. The post-test

result of control group was 0.026 which was lower than 0.05. From the findings, it can be concluded post-test scores of control class students were not normally distributed, so this study continued with non-parametric tests, especially Mann-Whitney to test the hypothesis.

According to Milenovic (2011), when the values in the sample are not normally distributed, the Mann-Whitney test is a non-parametric statistical technique that can be used as a substitute for the t-test for independent samples.

The Result of Homogeneity of Variance

The second assumption is the homogeneity test. The Levene test is employed in this study to determine the homogeneity variances. If the outcome is p > (0.05), the presumption is fulfilled. The group's variances are equal across groups if the assumption is p < (0.05).

Table 3. Levene's Test of Equality of Error Variances[a]			
Dependent Variable: Postest			
F	df1	df2	Sig.
1.192	1	65	.272
Tests the null hypothesis that the error variance of the dependent variable is equal across groups.			
a. Design: Intercept + Group + Pretest + Group * Pretest			

Based on the table above, Table 3 above shows that the significance of Lavene's test using SPSS version 25 is 0.272, which is more than 0.05, indicating that the data is homogeneous.

Testing Hypotheses of Mann Whitney U

This researcher used the Mann Whitney U test to determine the significant difference between the experimental group and the control group. The Mann Whitney U test outcome will be shown in table 4.

Table 4. The Result of Mann Whitney U Test

	Student Learning Outcomes
Mann-Whitney U	14.500
Wilcoxon W	609.500
Z	-6.940
Asymp. Sig. (2-tailed)	.000

Based on Table 4 the Mann-Whitney U score is 14.500, while the Wilcoxon W score is 609.500. If converted to Z score, the result is a score of -6.940. Asymp. Sig. (2-tailed) has a score of 0.000 to 0.05. If the sig value is less than 0.05. These results sufficiently indicate that this study has sufficient data to reject the null hypothesis and the alternative hypothesis is accepted, so that it can be said that

there is an effect of using Quizizz media on reading comprehension rather than not using Quizizz.

Calculation of the effect size is needed to find out how much power or how far the effectiveness of the media that researchers use in research. Effect sizes for non-parametric data were used in this study and were adapted from Cohen's Standard. It is described in table 5.

Table 5 Cohen's Standard of Effect Size (1998)

Size	Category
$0.8 \leq d \leq 2.0$	Big
$0.5 \leq d \leq 0.8$	Medium
$0.2 \leq d \leq 0.5$	Small

The effect size is manually calculated using the formula (Field, 2009: 550). The MannWhitney U test result is where the z value is obtained.

$$r = \frac{z}{\sqrt{N}} = \frac{-6.940}{\sqrt{68}} = \frac{-6.940}{\sqrt{8.246211}} = 0,84159$$

Based on the pattern of effect size results, the effect size score is 0.841, and according to table 5 of Cohen's Standard of Effect Size, "$0.8 \leq d \leq 2.0$ is a big category. As a result, the range $0.8 \leq d \leq 2.0$ is considered large. Therefore, the use of Quizizz media to assist students in reading comprehension is beneficial to great effect.

The purpose of this study was to determine the effect of Quizizz as a medium for teaching reading comprehension of recount text. The finding of this study in line with Juniarta et.al., (2020). They investigated the use of the Quizizz Application to Improve Students' Reading Comprehension at Undiksha Singaraja. The results showed that the MALL-based learning strategy through the Quizziz application is one of the innovative learning strategies that can help students improve reading comprehension. Priyanti et.al., (2019) also found that Mobile-Assisted Language Learning (MALL) which is integrated with Quizizz significantly affects the eleventh-grade English reading comprehension of students. The result of this study is that mobile learning using the Quizizz application has an effect on students' reading comprehension. Pahamzah et.al (2020) also found that the use of the Quizizz application as an online learning media based on smartphone games was effective and the results showed that Quizizz motivated students to be more interested in implementing it in class activities.

As a result, it can be said that the findings of this study are consistent with the findings of previous research because it shows significant differences

between students who are taught reading comprehension in eighth grade of SMPN 4 Kediri in the academic year 2022/2023 using Quizizz media and those who are taught using Google Forms. Quizizz is a media for teaching reading comprehension that is more effective than Goggle Form, especially for teaching recount text. It was found that students prefer to use Quizizz to learn comprehension. Students seem to value the answers to questions posed by researchers on Quizizz because they are more engaged, passionate, and willing to participate in teaching reading comprehension. Meanwhile, there is a lack of student interest in using Google Forms to study reading comprehension because the features displayed do not attract students' attention.

CONCLUSION

The purpose of this research is to find out whether Quizizz as a learning medium is effective in reading comprehension. Mann Whitney non-parametric test was used since the data were not normally distributed. The experimental group's N-Gain score was 57.2335 in the medium category. The result for the control group was 26.1465, with a low category score. Mann Whitney's significant value was 0.000 (0.000 0.05). This means that the null hypothesis can be rejected. This shows that the experimental group and the control group are significantly different. Based on the result, there is a significant difference between students who were taught with Quizizz and students who were taught with google forms. It is recommended that teacher should make the class interesting and fun in teaching reading. Teachers should be creative and innovative in using learning media to help students learn English. One of the best media for teachers to teach reading and encourage children to learn English is to use the Quizizz application. For further researchers, they can conduct a similar study by considering the limitation of this study, in different text types, skills, and different level of students.

REFERENCES

Alghizzi, T. M., & Elyas, T. (2022). The Effect of Graded-Reading Websites/Applications on EFL Undergraduates' Reading Comprehension during COVID-19 Pandemic. Electronics, 11(11), 17-51.

Creswell, J. W. (2008). Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research, New Jersey: Pearson Education Ltd.

Damayanti, G., Wulandari, N. C., Hasna, E. F., & Sopyawanda, N. (2022, June). Systematic Literature Review: The Effectiveness of Quizizz Application as Tool for Reading Assessment in Senior High School. Proceeding of Conference on English Language Teaching (CELTI 2022) English Education Department, Faculty of Tarbiyah and Teacher Training State Islamic University of Prof. K.H. Saifuddin Zuhri Purwokerto (pp. 168–181). June 08, 2022.

Durriyah, R. (2017). The Effectiveness of Using Small Group Discussion On Students' Reading Comprehension Of Recount Text (Bachelor's thesis, UIN Syarif Hidayatullah Jakarta: Fakultas Ilmu Tarbiyah dan Keguruan, 2017).

Dwiningtiyas, G. N., Sofyan, D., & Puspita, H. (2020). Teachers' Strategies in Teaching ReadingComprehension. Journal of Applied Linguistic and Literacy, 4(2), 66-77.

Erya, W. I., & Pustika, R. (2021). Students'perception Towards the Use of Webtoon to Improve Reading Comprehension Skill. Journal of English Language Teaching and Learning, 2(1), 51-56.

Figueroa De La Rosa, W. V. (2015). Educational Platform Edmodo to Develop Reading Comprehension Competence in Students of Sixth Year at Escuela De Educación Básica El Vigía, José Luis Tamayo, salinas, 2014-2015 (Bachelor's thesis, La Libertad: Universidad Estatal Península de Santa Elena, 2015).

Harmer, Jeremy, (2007). The Practice of English Language Teaching, 3rd Ed, New York

Juniarta, P. A. K., Dewi, K. S., Mahendrayana, G., & Swandana, I. W. (2020a). The Analysis on the Implementation of Mobile-Assisted Language Learning Strategy Through Quizizz Application to Improve Student's Reading Comprehension at Undiksha Singaraja. Advances in Social Science, Education and Humanities Research, 394, 323-327.

Milenović, Ž. (2011). Application of Mann-Whitney U test in research of professional training of primary school teachers. Metodički obzori: časopis za odgojno-obrazovnu teoriju i praksu, 6(11), 73-79.

Neufeld, P. (2005). Comprehension Instruction in Content Area Classes. The Reading Teacher, 59, 302-31.

Ningrum, D. W. (2022). The Utilization of Quizizz Application in Online English Learning. Eltin Journal: Journal of English Language Teaching in Indonesia, 10(1), 55-64.

Pahamzah, J., & Juniardi, Y. (2020). Quizizz as A Students'reading Comprehension Learning Media: A Case Study at The Eleventh Grade of Dwi Putra Bangsa Vocational School in Cimanggu. International Journal of English Language and Linguistics Research, 8(5), 27-33.

Priyanti, N. W. I., Santosa, M. H., & Dewi, K. S. (2019). Effect Of Quizizz Towards the Eleventh- Grade English Students'reading Comprehension in Mobile Learning Context. Language and Education Journal Undiksha, 2(2), 71-80.

Puspitasari, E. D. T., Surjono, H. D., & Minghat, A. D. (2018). Utilizing Web Based Learning as 21st Century Learning Media for Vocational Education. International Journal of Engineering & Technology, 7(4.33), 157-160.

Ratnasari, E., Hikmawati, R., & Ghifari, R. N. (2019, September). Quizizz Application as Gamification Platform to Bridge Students in Teaching Reading Comprehension. In Prosiding Seminar Nasional Pendidikan, 1, 1333-1337.

Solikhah, I. (2018). Insufficient Preparation of Teaching Reading: What Should Teacher Challenge? IJOLTL: Indonesian Journal of Language Teaching and Linguistics, 3(3), 71-84.

Sunardi, A. I. (2021). Learning English through Google Meet, Google Classroom, and WhatsApp Groups for AMA Yogyakarta Students. Jurnal Education and Development, 9(3), 573-578.

Sutz, R., & Weverka, P. (2009). Speed reading for dummies. Hoboken, NJ: Wiley Pub.

Thamrin, N. S. (2014). Scanning technique in developing students' reading comprehension. Kreatif, 15(1), 31-35.

Wardiman, Antono, et al. (2008). English in Focus for Grade VIII SMP/MTs. Jakarta: Eureke.

Widiani, M., & Apsari, Y. (2022). Students' Responses Toward Teaching Reading Descriptive Texts Using Small Group Discussion. PROJECT (Professional Journal of English Education), 5(1), 57-63.

Yusuf, Y., & Fauzan. (2016). EFL Students' Difficulties in Comprehending English Reading Texts. Proceedings of the 1st English Education International Conference (EEIC) in Conjunction with the 2nd Reciprocal Graduate Research Symposium (RGRS) of the Consortium of Asia- Pacific Education Universities (CAPEU) between Sultan Idris Education University and Syiah Kuala University (pp. 510-514). November 12-13, Banda Aceh, Indonesia.

Ziska, I. Y. (2021, June). Webtoons as an attractive media in teaching reading comprehension. In UNNES-TEFLIN National Seminar, 4(1), 54-62.