

THE EFFECTIVENESS OF QUIZIZZ PAPER MODE IN ENGLISH LANGUAGE TEACHING

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Abstract

English teachers' ability to create a fun and interesting learning atmosphere for students is deemed important these days. With a fun and interesting atmosphere, students' learning will likely be more effective. To create this atmosphere, teachers can combine learning with games such as Quizizz. Quizizz has been found effective in many English classes. However, there is not much information on the effectiveness of Quizizz Paper Mode in English classes at elementary schools. This paper presents the findings of pre-experimental research on the effectiveness of Quizizz Paper Mode at Madrasah Ibtidaiyah Salafiyah Kertoharjo Pekalongan. This research has two main objectives namely to investigate the effectiveness of using Quizizz Paper Mode in teaching English in elementary schools and to identify students' perceptions regarding the effects of using the Quizizz Paper Mode in learning English. The research instruments used were pretest post-test and students' perception questionnaires. The data obtained were analyzed using descriptive, non-parametric and comparative methods. The results showed that the use of Quizizz Paper Mode in teaching English is effective in improving students' learning outcomes. In addition, the majority of students gave positive responses to the use of Quizizz Paper Mode in learning English. These findings showed the potential application of technology in the context of language learning in elementary schools.

Keywords – Quizizz paper mode, Experimental study, English Language Teaching

Introduction

The use of technology in educational institutions varies across educational settings depending on the resources they have. Students in educational institutions with a lot of resources may have no issue with the use of various and advanced technology. However, the students in educational institutions with limited resources may have difficulty accessing technology. Then, if these institutions want to use advanced technology, it will increase the educational costs which subsequently can be burdening for many students.

The high educational costs related to the use of technology can be overcome through choosing free teaching and learning platforms. Nowadays some digital tool developers and software companies provide free access for educators or teachers who are willing to teach using their digital products. Therefore, teachers and educators need to

analyze and use technological tools to improve students' learning experience and minimize educational costs.

Learning using technology enables students to access material interactively and flexibly, enhancing their engagement and understanding in the learning process. Teachers also make the learning process easier by accessing technology. The use of technology as a learning medium is also often done in schools such as through using the Quizizz web application.

Quizizz is an educational game application that is narrative and flexible, apart from being able to be used as a means of delivering material. Quizizz can also be used as an interesting and fun learning evaluation medium (Salsabila et al., 2020). According to Fauziah and Hadi (2023) in their research, one of the tools that has been introduced is Quizizz Paper Mode (QPM), which offers an interactive learning experience via paper devices. QPM application can be employed in

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many educational settings starting from elementary school levels which offer primary education for students aged from 7 to 12 years up to university level which offers education for older students.

In Indonesia, there are two types of primary schools. The first type of school is elementary schools under the Ministry of Education and Culture which is popularly known as *Sekolah Dasar* (SD). The second type of elementary school is known as *Madrasah Ibtidaiyah* (MI) which is under the Ministry of Religious Affairs. The setting of the present study is *Madrasah Ibtidaiyah Salafiyah* or MIS located at Kertoharjo Pekalongan Central Java. It is an educational institution that implements Islamic values and education at the primary school degree.

Based on the researchers' observations at MIS Kertoharjo, learning using advanced technology such as QPM has not been implemented. However, the teachers there already use some teaching tools such as a projector and a laptop to support the teaching and learning activities. The researchers chose MIS or Primary school degree because the students get more interested in learning activities that involves games. The researchers were interested in researching the use of QPM in MIS Kertoharjo. With this game, the researchers hoped that students would be able to participate more actively in learning. By using this learning medium, the researchers also hoped that the use of smartphones would be much more beneficial for supporting students' learning.

The aims of the research were: 1). To investigate the effectiveness of QPM applied in English language teaching, 2). To identify the students' perceptions regarding the effectiveness of QPM in learning English.

The researchers chose the QPM as the learning medium because, in this digital era, learning sources are not limited to books or power points. These days, the

students can play and learn at the same time. QPM itself can be an attractive learning medium and it can give a lot of significance namely increasing students' attention in learning activities, creating teaching and learning which is more chill and fun, as well as making it easier to correct questions and carry out assessments. Nowadays, the younger generation is surrounded by digital technologies from mobile phones, MP3 players, and computers, to the internet and video gaming (Razak & Connolly, 2013). Based on Razak and Connolly's statement, young children or primary school students will get more interest if the learning activities involve games method.

The researchers reviewed several previous studies to identify similarities and differences and avoid plagiarism. First, Iman et al (2021) examined the effectiveness of the experience-based role-playing games in improving elementary students' English-speaking skills using a quasi-experimental design. The research shows that experience-based role-playing game learning method makes a very large contribution in improving students' English-speaking skills. Both Iman et al.'s research and the current research focus on elementary English language learning but differ in their objects: role-playing games versus QPM.

The second research was done by Meliza et al., (2021) in which they proved that using a medium like Quizizz in elementary schools was very effective. This research assessed Quizizz's effectiveness as an online learning medium in elementary schools, using pretests and post-tests, and found it very effective. While both studies use Quizizz, Meliza et al.'s research used general Quizizz, whereas the present research focuses on QPM.

The third research was conducted by Paramita (2021) which revealed that there was a great improvement in students'

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narrative text reading skills after being taught by using Quizizz media. Paramita's research investigated Quizizz's impact on high school students' narrative text reading skills while this current research investigated the impact of Quizizz on the learning of elementary school students.

The fourth research was done by Fauziah and Hadi (2023) in which they found that Quizizz Paper Mode significantly increased student achievement in learning. While Fauziah and Hadi's research analyzed the effectiveness and benefits of QPM in third grade, the current research examined QPM in the fifth grade.

The fifth research was done by Anggraeny et al., (2020) which found that teachers at SDN Karang Tengah 11 already employed technology when teaching. These teachers have taught using pictures and films and others have used a projector. Anggraeny et al.'s research aimed to explore the role of technology in elementary education but the current research specifically targets QPM.

Methodology

A suitable method for data searching was needed for this research. In this case, the researchers employed a quantitative approach. Creswell (2014) mentions that in conducting research, we can use quantitative, qualitative, and mixed methods. Creswell (2014) describes quantitative research by mentioning it as an approach that can be employed to examine the relationships among variables, which further can be measured and analyzed statistically. This method is appropriate to help researchers study samples and analyze data to test hypotheses (Sugiyono, 2014). Employing a pre-experimental design, this research involved only a single group that was given pre-tests and post-tests (Sugiyono, 2014). The choice of pre-experimental

design aimed to evaluate the effectiveness of QPM in English language teaching at Madrasah Ibtidaiyah Salafiyah by comparing conventional teaching methods with the use of QPM.

The research was conducted in March 2024 at MIS Kertoharjo, located in South Pekalongan District, Pekalongan City, Central Java. Madrasah Ibtidaiyah (MI), equivalent to elementary school, is a basic level of formal education in Indonesia managed by the Minister of Religious Affairs, spanning six years from 1st to 6th grade. Data was collected from 30 fifth-grade students, comprising 14 males and 16 females.

In this research, the QPM was used as the object, and the 5th grade MI Salafiyah Kertoharjo students were the subjects. The researchers employed pretests, post-tests, and questionnaires as instruments to collect data. The analysis focused on differences in student performance before and after using QPM as a learning medium. Subsequently, students completed a questionnaire regarding their experience with QPM.

Finding and Discussion

The research was conducted at MI Salafiyah Kertoharjo in the fifth grade with learning using QPM as a learning medium. As for the schedule research is as follows.

Table 1. Research Schedule

No	Date	Activity
1	Saturday, March 2, 2024	Request permission to conduct research at Madrasah Ibtidaiyah Salafiyah Kertoharjo Pekalongan
2	Tuesday, April 30, 2024	In the first research, students were given a pretest before learning using a learning model based on Quizizz Paper Mode
3	Tuesday, May 7, 2024	In the second research, students were given a post-test using Quizizz Paper Mode. At the end of the class, students fill out a questionnaire.

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4	Wednesday, May 15, 2024	The school issued a letter stating that the research has been completed.
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This research utilized two instruments: a one-group pretest-post-test design and a students' perception questionnaire. The pretest assessed the initial situation, followed by a post-test to evaluate the effectiveness of QPM as a learning medium for fifth-grade MI Salafiyah Kertoharjo students after the intervention. The perception questionnaire, a paper with various statements, gathered students' opinions on using QPM in learning.

Table 2. Learning outcomes pretest scores

No	Name	Pretest score	Information	Value
1	S1	60	Good enough	C
2	S2	50	Enough	D
3	S3	80	Good	B
4	S4	80	Good	B
5	S5	40	Enough	D
6	S6	70	Good enough	C
7	S7	60	Good enough	C
8	S8	70	Good enough	C
9	S9	40	Enough	D
10	S10	60	Good enough	C
11	S11	60	Good enough	C
12	S12	60	Good enough	C
13	S13	80	Good	B
14	S14	60	Good enough	C
15	S15	20	Enough	D

16	S16	60	Good enough	C
17	S17	70	Good enough	C
18	S18	80	Good	B
19	S19	60	Good enough	C
20	S20	60	Good enough	C
21	S21	40	Enough	D
22	S22	40	Enough	D
23	S23	40	Enough	D
24	S24	60	Good enough	C
25	S25	20	Enough	D
26	S26	70	Good enough	C
27	S27	60	Good enough	C
28	S28	50	Enough	D
29	S29	40	Enough	D
30	S30	60	Good enough	C
Total score		1700	Enough	
Average		56.66667		

$$\text{percentage}(p) = \frac{\text{Number of earned score}}{\text{Number of maximum score}} \times 100\%$$

$$\text{percentage}(p) = \frac{1700}{3000} \times 100\%$$

$$\text{percentage}(p) = 56.66667 \text{ (Enough)}$$

Table 1. Learning outcomes post-test scores

No	Name	Pretest score	Information	Value
1	S1	100	Good enough	C
2	S2	80	Enough	D
3	S3	100	Very good	A

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4	S4	90	Good	B
5	S5	80	Good	B
6	S6	80	Good	B
7	S7	100	Very good	A
8	S8	100	Very good	A
9	S9	60	Enough	D
10	S10	90	Good enough	C
11	S11	80	Good	B
12	S12	100	Good enough	C
13	S13	90	Good	B
14	S14	90	Good enough	C
15	S15	70	Enough	D
16	S16	80	Good enough	C
17	S17	100	Very good	A
18	S18	100	Good	B
19	S19	70	Good enough	C
20	S20	100	Good enough	C
21	S21	80	Enough	D
22	S22	100	Good	B
23	S23	90	Enough	D
24	S24	80	Good	B
25	S25	60	Enough	D
26	S26	100	Very good	A
27	S27	90	Good	B
28	S28	80	Good	B
29	S29	70	Enough	D
30	S30	90	Good	B
Total score		2600	Very good	
Average		86.6		

*S = Student

$$\text{percentage}(p) = \frac{\text{Number of earned score}}{\text{Number of maximum score}} \times 100\%$$

$$\text{percentage}(p) = \frac{2600}{3000} \times 100\%$$

$$\text{percentage}(p) = 86.6 \text{ (Very good)}$$

The calculation of the T-test in this research used SPSS 26. This test was used to test the average score before and after treatment to see whether there was a significant effect. Table 4.4 displays the findings from the research conducted using SPSS 26.

Table 4. Paired sample statistics

Paired Samples Statistics				
	Mean	N	Std. Deviation	Std. Error Mean
Pair 1: pretest	56.67	30	16.046	2.930
posttest	86.67	30	12.411	2.266

For the pretest score, the average learning outcome was 56.67. As for the post-test score, the average score was 86.67. The number of respondents was 30 students. Because the post-tests average score for learning outcomes was higher than the pretest's average score, it can be concluded that differences in the students' learning outcomes in the pretest and post-test existed.

Table 2. Paired sample test

Paired Samples Test									
		Paired Differences		95% Confidence Interval of the Difference				Sig. (2-tailed)	
		Mean	Std. Deviation	Lower	Upper	t	df		
Pai	Pret	-	12.5	2.	-	-	-	2	.00
r	est -	30.	94	29	34.	25.	13.	9	0
1	Pos	00		9	70	29	04		
	ttest	0			3	7	7		

The hypotheses that were proposed were:
 H_0 = There was no significant influence in using QPM on student learning outcomes.
 H_a = There was a significant influence in using QPM on student learning outcomes.

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- a. To determine the value of t table can use the following formula:

$$df\left(\frac{\alpha}{2}; n - 1\right) = \left(\frac{0.05}{2}; 30 - 1\right)$$

$$= (0.025; 29)$$

$$= 2.363$$

Based on the t count value of the SPSS results in Table 13 of -13.047 and t table obtained a value of 2.363. So, that t count $< t$ table then H_0 was rejected, then H_a was accepted.

- b. The results of significant values can be seen in Table 13. The significant value was less than 0.05. sig. (0.000) < 0.05 so that H_0 was rejected, and then H_a was accepted.

The partial hypothesis test suggests that the application of QPM had an impact on the learning outcomes of the students. Referring to the findings of research that has been conducted on the efficiency of QPM in English language teaching for class 5 MI Salafiyah Kertoharjo using pretest post-test and students' perception questionnaire using the normality test and T-test analysis method, all of these assumptions were met and there was an influence of using QPM in English language teaching on student learning outcomes.

The effectivity test was a test to determine whether or not the use of QPM was effective in learning English in grade 5 students.

Category effectivity	
Percentage (%)	Information
<40	Ineffective
40-55	Less effective
56-75	Quite effective
>76	Effective

Table 3. N gain score

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Ngain_score	30	25	100	71.36	24.222
Ngain_percentage	30	25.00	100.00	71.3611	24.22208
Valid N (listwise)	30				

Based on the N-gain score, the average N-gain score for the fifth grade, which was 71.3611, was found to be within the range of quite effective with a maximum N-gain score of 100.00 and a minimum of 25.00. In summary, QPM has been effective for English language learning in the fifth grade MI Salafiyah Kertoharjo Pekalongan.

Further, the findings can be discussed in the following sections.

1. The effectiveness of using QPM in learning English in the fifth grade of MI Salafiyah Kertoharjo Pekalongan.

To reveal the effectiveness of QPM used for teaching English in MI Salafiyah Kertoharjo Pekalongan, the results of percentage calculations, normality test, t-test and average values to determine the effect of using QPM in learning English were presented here.

First, normality test results were calculated using SPSS 26. Referring to the pretest's significance value Sig (0.011) > 0.05 , and post-test value, Sig (0.002) < 0.05 . H_0 was rejected. With this value, the data was abnormally distributed. From the results of normality testing using Shapiro-Wilk, in summary, the scores of the pretest and post-test had an abnormal distribution of data. Based on the pretest significance value of sig (0.011) > 0.05 , for the data to be regularly distributed, H_0 was accepted. With the post-test, significance value (0.002) < 0.05 the H_0 was rejected so the data was not normally distributed. Referring to the results of normality testing using Shapiro-Wilk, in

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summary, the pretest and post-test scores showed an abnormal distribution of data, so a non-parametric test was used in the analysis.

In this non-parametric test, the Wilcoxon test was used. There were 30 positive data, which means 30 students got an increase in learning outcomes from pretest to post-test scores. The average increase was 15.50. while the number of positive ranks was 465.00. In the Wilcoxon statistical test, Asymp. Sig (2-tailed) was 0.000. with the value of $0.000 < 0.05$, and so the hypothesis was accepted. This indicates that there was a variation in the outcomes of the pretest and post-test. Thus, it may be said that using QPM had an impact on English learning in the fifth grade of MI Salafiyah Kertoharjo Pekalongan.

Second, the results of the T-test were used to test the average score before and after treatment and to check whether there was a significant effect or not. Based on the t count value from the SPSS results of -13.047 and the t table value obtained was 2.363 and this means that t count was less than t table and so H_0 was rejected, then H_a was accepted and the resulting significant value was less than 0.05, namely Sig. (0.000) < 0.05 so H_0 was rejected, then H_a was accepted which means there was a difference before and after treatment was given.

At the first meeting, the researchers conducted a pretest consisting of 10 multiple-choice questions for 15 minutes before learning using the QPM. The purpose of carrying out the pretest was to measure students' initial abilities before being given treatment on student learning outcomes. The pretest score ranged from 20 to 80, with 20 being the lowest. After completing the pretest, students were

given treatment or learning using the QPM. After learning using QPM, in the post-test, the students got the lowest score of 60 and their highest score was 100.

Based on the description of the research results presented above, the research that has been carried out with the title "The Effectiveness of Quizizz Paper Mode in English Language Teaching (An Experimental Study at the Fifth Grade of Madrasah Ibtidaiyah Salafiyah Kertoharjo Pekalongan)" might be considered capable of enhancing the learning outcomes of students while carrying out treatment using QPM. In this research, the researchers certainly encountered obstacles in the field. The problem resulted from the unavailability of comparison from other classes that used QPM. Therefore the researchers only used one class as a sample at the first meeting using QPM. In addition, because the number of respondents was not more than 30, so there was a combination of students from two classes to meet the target of respondents. To overcome these obstacles, researchers used a single class as the research sample and opted to use a one-group pretest-posttest research design.

The effectiveness of learning using QPM can be seen from the results of students' perception data and the effectiveness test. Based on the data, students got an average score of 84. It can be concluded that the use of QPM in teaching English has a good effect on learning activities.

Effective calculation of learning using the effectiveness test was a test to determine whether or not the use of QPM was effective for English language teaching. According to the N-gain score test calculation findings, the fifth grade's average N-gain score

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of 71.3611 fell into the "quite effective" category, with a minimum N-gain score of 25.00 and a maximum of 100.00. It can be concluded that the use of QPM in teaching English has been effective in improving student outcomes.

As Rinja Efendi and Delita Gustriani (2020) said, some factors influence the learning motivation of the participants in this research, including the teacher's efforts in teaching students. Teachers prepare themselves in providing lessons such as mastering the material, delivery methods, attracting students' attention and evaluating learning outcomes, the same as using QPM in English language learning in this research. According to Razali (2020), the results showed that students' motivation was at a moderate level after implementing a gamification approach using Quizizz.

2. Students' perceptions regarding the effect of Quizizz Paper Mode (QPM) in learning English

The following were the results of the 5 statements of the students' perceptions questionnaire. The first statement, which said *QPM helps students understand the material*, got 129 as the total score. The second statement, which said *QPM immediately gave a correction*, got a total score of 133. The third statement was *QPM makes it easier to do tests* and it got 127 in the total score. The fourth statement was *QPM increases students' learning motivation* and it got 121 in the total score. The fifth statement was *QPM makes students feel challenged* and it got 124 in the total score. From the 30 respondents who filled out the questionnaire activity sheet, the total score was 63 with an average of 21. After getting the total and average scores, the

average score was obtained by using the formula. With that formula, the researchers obtained a score of 84 which indicates the category of "Good".

The other obstacle faced by the researchers in conducting research related to students' interest in English lessons. The students tended to dislike English lessons because the materials were difficult to understand. Besides, the learning was perceived as monotonous and boring. However, in the end, the existence of the QPM model could help with those obstacles and increase student interest in learning English.

Based on these results, it can be concluded that the use of Quizizz Paper Mode has a good effect on English language learning in MI Salafiyah Kertoharjo Pekalongan. The use of QPM was considered good by the students. They feel a new and exciting experience. This can increase their interest in English lessons. These results were in line with the findings of the research conducted by Wulandari (2022) in which students showed high satisfactions in regards to the use of Quizizz. This current research findings also support the findings from a previous study conducted by Fakhruddin and Nurhidayat (2020) in which students were found to have a positive perception of Quizizz.

Conclusions

Referring to the result of the research, the researchers draw the following conclusion.

The use of QPM in learning English for fifth-grade students at MI Salafiyah Kertoharjo Pekalongan was in the quite effective category. Based on the N-gain calculation, the average N-gain score from the fifth grade was 71.3611 which was categorized as quite effective. While

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T-test showed that in the pretest the students got the lowest score 20 and the highest score was 80. After using QPM, the post-test results increased, with the lowest score of 60 and the highest score of 100. The significant results showed that there was a difference in students' scores before and after being given the treatment. This was strengthened with the non-parametric Wilcoxon test which showed that there was an effect of using QPM on English language learning for the fifth-grade students at MI Salafiyah Kertoharjo Pekalongan.

In terms of students' perceptions of learning using QPM, a score of 84 that indicated "Good" was obtained. Students had a positive impression of QPM. This was also in accordance with student learning results which showed an increase in scores from pretest to post-test data.

It can be concluded that learning with new methods such as QPM can change students' perceptions of learning slightly. Before using QPM, they seemed to be less interested in learning English. However, after using the gamification method, they seemed to prefer and be interested in the use of learning while playing method.

Following the conclusion, the researchers offer some suggestions for the teacher, the school, and future researchers. First, for the teacher, it is advisable to use methods and techniques for learning English that are interesting for students, such as learning combined with games so that students do not get bored easily. It is also necessary for teachers to guide students for not only playing games with their smartphones but taking advantage of them, especially for learning English.

Next, for the students, it is necessary for them to master English grammar, English pronunciation and vocabulary. Students may also need to study from home using a smartphone, such as using Quizizz or using other online learning

media. Online learning can enhance their learning experience, allowing them to discover more knowledge in the subject they are learning.

Further, for the schools, it may be necessary for schools to add more facilities such as internet and projectors. This can be more effective in developing students' English language skills. Also, if possible, giving additional hours for English lessons may be helpful to increase students' mastery of English.

Finally, for future researchers, it is suggested to pay attention to new methods and strategies to be applied in learning, so that students are not trapped in monotonous language lessons. Researchers need to find strategies that can make students learn foreign languages in a more effective and fun way.

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