

Students' Perceptions of Using Quizizz Educational Game in Indonesian Language Learning at SMK Muhammadiyah 2 Karanganyar

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Abstract. This study aims to determine students' perceptions of using Quizizz educational games in Indonesian learning. This quantitative research used a survey approach and a questionnaire to collect data. Twenty-five respondents were selected through purposive sampling, and questionnaires were administered via Google Forms. Data were analyzed using an independent-sample t-test to determine the usability level of Quizizz in Indonesian learning. The questionnaire consists of several questions that lead to students' perceptions of Quizizz for learning Indonesian. The questionnaire presented to the respondents contained 20 questions related to internal and ten related to external factors. The study results show that students' perceptions of using the Quizizz educational game app for Indonesian learning are good (48% have very good perceptions, and 44% have good perceptions). The correlation test obtained a result of 0.486 after calculating the correlation with students' learning outcomes (Y variable). It shows a moderate correlation between the two variables. Although this research is still in its early stages and has a small sample, it indicates that further research is needed. Using a smartphone can help students learn by using Quizizz. Teachers can save students more quiz time, thereby giving students time to study and understand the material more deeply. Students also prefer to use this media because it has various interesting features that encourage them to participate in learning.

Keywords: Educational Game Application \cdot Quizizz \cdot Students' Perceptions \cdot Indonesian Learning

1 Introduction

Quizizz educational game is a game-like application or website. According to Mulatsih (2020), using Quizizz educational games as learning media combined with material assessment has the potential to produce new and exciting learning. Quizizz has many game features, such as multiple choice, checkbox, fill-in-the-blank, voting/survey, open-ended/essay, and music entertainment while studying. Quizizz allows students to compete with each other and encourages them to learn continuously. In class, students can take quizzes and observe others' rankings (Purba, 2019). Teachers can use various media they obtain, including game-based learning materials that serve as students' learning assessments. Quizizz learning media can assist educators in estimating students' scores, so it tends to be used as learning assessment material. Evaluation can be tedious when questions are presented on the blackboard or read by the teacher. Quizizz provides an alternative for teachers to evaluate students.

Rosy and Citra (2020) elaborate that Quizizz is a game-based educational app that creates multiplayer activities in the classroom and enhances the fun and interactivity of classroom teaching. In particular, this application can also form Indonesian language education. With this app, students can improve their reading, writing, speaking, listening, and grammar skills. The challenge is the game-like design of the app, which requires students to respond within a set amount of time. As a result, students learn to think fast. Listening is an essential language skill because students' understanding of the lesson in Indonesian and other classes will be directly influenced by their listening skills. One's literacy represents their capacity to understand written material. Writing skill begins with a person's ability to read, understand, and provide responses that comply with the rules of good and correct language and speaking skills.

According to several studies in educational design, game-based learning is an effective teaching method, especially in maintaining learning motivation (Perdana, 2020; Felszeghy et al., 2019; Ismail et al., 2019). Most educators currently prefer to use books alone as a learning tool, and other forms of media are less desirable. Students and teachers will suffer from teachers who do not use learning media. According to Halimah (2018), the lack of students' understanding of the material is considered a failure or a less successful education. Even today, students are so interested in digital-based learning. Enthusiasm for the learning process to improve students' learning outcomes shows this condition (Hoerunnisa et al.). As a result, teachers' knowledge about media use needs to be continuously improved (Alwi, 2017) so that students always learn with new ideas and creativity. Teachers' lack of creativity in teaching students is also known as the absence of media use in class. A teacher must also use media in a planned and organized manner and focus on specific learning materials. The goal is for students to understand the material correctly. According to Nurdiansyah and Fahyuni (2016), it is essential to consider the advantages and disadvantages of each learning media when choosing it. The benefits of media and its potential challenges in learning can be used to determine its role in learning activities.

Based on the results of interviews with the Indonesian language teacher, Ms. Ribut Setyarini, S.Pd., carried out by researchers, during the learning process, it is common knowledge that blackboards contribute 80% of the media teachers use to deliver information. In comparison, laptops contribute 20% when information requires a direct application. As a result, the delivery tends to be repetitive, resulting in students being disinterested and less involved in ongoing learning. According to the teacher, the media used is insufficient to deliver information effectively. Hence, media use is quite creative and diverse to convey information effectively and attract students' attention. Many students try to ignore learning and cannot answer questions from educators, causing many whose grades do not meet the minimum mastery criteria. Based on the last daily test results,

65% in the eleventh AKL 3 class (50 students) scored under the minimum mastery criteria of 75. Students became less interested in learning. Students become disinterested in the education they receive because the teacher uses less attractive teaching materials, and students lack focus and the ability to pay attention to the material.

Applications that can facilitate students in learning are Quizizz educational games. It can be used in the classroom to assist students in learning. Quizizz can attract students' attention to focus on the discussed subject because it is a visual learning media with exciting functions and many features. It is an interactive learning media that can make learning more interesting, fun, and not boring for students and teachers. According to Ishak et al. (2017), Quizizz emphasizes learning styles that include competitive role relationships between students and their peers. According to Utomo and Wihartanti (2019), a blended learning strategy to improve students' critical thinking skills and achievement used Quizizz educational game application. Besides being free, the application Quizizz can also be used for all dialects and illustrations and can associate with the web (Aribowo, 2019).

Quizizz has the following advantages as a learning aid: a) questions and answer choices are displayed one by one on the screen of each participant randomly; b) participants can answer the following question after completing the previous question without waiting for other participants; c) there is no limit to the number of words for questions and answers; d) Quizizz can be used to create quiz questions; e) Quizizz is integrated with Google Classroom so that students are more secure because they log in as a learning aid. However, Quizizz also has several disadvantages: a) players cannot stop answering questions until they have answered all of them; b) The application observes a decrease in ranking which results will be even better if students work on the questions faster; c) The application requires fast internet connection. Therefore, if the internet connection is slow, it will be difficult for students to work on the quiz.

Indonesian is compulsory in elementary, middle, high school, or university. Language is a set of utterances that have meaning from the utterances. Indonesian learning is designed so that students can communicate effectively under oral and written ethics, appreciate and be proud of using the Indonesian language, enjoy and utilize literary works with broader insights, and use Indonesian to increase intelligence, emotional maturity, and social (Samsiyah, 2016).

There is research on students' perceptions of Quizizz in learning by Annisa (2022) entitled, "Student Perceptions of the Educational Game Quizizz In Civic Education Subjects: Case Studies in Tenth Social 3 Grade at SMA Negeri 2 Bangkalan." This study used a qualitative descriptive method. The results show that Quizizz educational games stimulate the perspective of tenth-grade social students at SMAN 2 Bangkalan. Quizizz can make it easier for students to memorize the material from the teacher, and students will be challenged when answering questions from the teacher in a short time.

Fadly (2022) researched students' perceptions of the Kahoot application, entitled "Student Perceptions of Using Kahoot and Quizizz in Learning in Fourth-Grade of Elementary Schools." This study used a quantitative descriptive research methodology and a survey design. The results indicate that students rate Kahoot 71.1 and Quizizz 69.5.

Perdana (2020) also previously researched students' perceptions of media using Kahoot, entitled "Students' Perceptions of Utilization of Media Kahoot in Learning Indonesian." This study used quantitative research methods and survey methods, and a questionnaire as a data collection tool. The results show that all students have a good perception of using Kahoot media to learn Indonesian (48% very good; 44% good). It includes using ICT in the classroom, particularly smartphones, for learning Indonesian can add positive energy to students to increase motivation, involvement or activeness, and academic success.

Based on previous research, Quizizz is an application that can be used for learning assessment. Various application features in Quizizz make students happy and comfortable doing quizzes. It also motivates students to complete assessments with maximum grades.

Based on the background and previous research, the researcher conducts a study entitled "Students' Perceptions of Using Quizizz Educational Games in Indonesian Language Learning at SMK Muhammadiyah 2 Karanganyar". The researchers use this title to determine students' perceptions of using Quizizz educational games in Indonesian language learning.

2 Method

This quantitative research used a survey approach and a questionnaire to collect data. It was used to get individual opinions about a particular topic or content. This approach used statistical analysis and presented data in numerical form. The researchers used this approach to investigate students' perceptions of using Quizizz educational games on their learning outcomes. The population of this study was 50 eleventh-grade students of AKL 3. 25 students were taken as samples and selected using purposive sampling. The sample selection is based on students' activeness in using smartphones for learning. Questionnaires and tests were used to collect data. The list of questions in the survey asks students what they think about Quizizz educational games in Indonesian learning. The questionnaire presented to the respondents contained 20 questions related to internal and ten related to external factors. An independent sample t-test was used in the data analysis stage to assess the effectiveness of Quizizz educational games in Indonesian learning. If the data is normally distributed, parametric statistics are used. The correlation analysis of Product Moment tests the first and second hypotheses according to the following guidelines (Sugiyono, 2016) (Table 1).

The variables of respondents' answers were measured and decided on the evaluation criteria using the following formula:

$$R = H - L$$

= 80 - 20 = 60
I = $\frac{R}{4} = \frac{60}{4} = 15$

Alternative Answer	Score
Strongly agree	4
Agree	3
Disagree	2
Strongly Disagree	1

Table 1. Assessment Guidelines

(Source: Research Guidelines)

3 Results and Discussion

The data was obtained using a questionnaire as the data collection instrument. The questionnaire consisted of 20 question items. This study distributed questionnaires via Google Form to 25 eleventh-grade students of AKL 3 at SMK Muhammadiyah 2 Karanganyar for this research (Table 2).

From the data from the questionnaire about students' perceptions of using the Quizizz educational game application in Indonesian learning, 80 is the highest score, and 49 is the lowest score (Table 3).

A = Very good (66-80)B = Good (51-65)C = Fairly Good (36-50)D = Not Good (20-35)

According to Table 3, there were a total of 25 students who scored "Very Good" (Category A), "Good" (Category B), and "Fairly Good" (category C). 48% "Very Good" (Category A), 44% "Good" (Category B), and 8% "Fair" (Category C) are the criteria for the percentage score of respondents. Figure 1 illustrates the distribution.

3.1 Questionnaire Result Analysis

Questions 1 to 10 are about students' internal factors in Indonesian learning. Approximately 10% of the sample consisted of students who answered "Disagree" or "Strongly Disagree." Questions 11–20 relate to external factors related to students' responses when using Quizizz educational games. "Strongly Disagree" or "Disagree" was answered by less than 5% of students. The results show that students are interested and willing to use the Quizizz educational game application in learning.

Students tend to be passive and rarely interact with each other during learning activities without using media, especially those related to learning. However, when using Quizizz for learning, students become more involved and open textbooks without being asked. They immediately share their thoughts about the lesson with their peers. If they are unsure of an answer, other students will ask why they chose that answer. In addition, when using this educational game application, students who usually sit still and are not interested in learning begin to show interest. The data is processed and analyzed using

Table 2.	List of Questionnaire Questions	
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No	Questions
1	Saya mengikuti kegiatan belajar bahasa Indonesia tanpa merasa terbebani. (I follow Indonesian learning activities without feeling burdened.)
2	Saya berusaha tepat waktu untuk pelajaran bahasa Indonesia. (I try to be on time for Indonesian language learning.)
3	Saya siap berpartisipasi dalam pembelajaran bahasa Indonesia. (I am ready to participate in Indonesian language learning.)
4	Saya selalu bersemangat mengikuti pembelajaran bahasa Indonesia. (I am always eager to follow Indonesian language learning.)
5	Saya selalu hadir selama pelajaran bahasa Indonesia. (I am always present during Indonesian language learning.)
6	Pembelajaran bahasa Indonesia tidak sulit untuk saya pahami. (Indonesian language learning is not difficult for me to understand)
7	Saya merasa tertarik dengan materi yang disampaikan oleh guru. (I feel interested in the material teacher presents)
8	Saya memperhatikan dengan seksama setiap materi yang diajarkan. (I pay close attention to every material taught.)
9	Saya memperhatikan ketika guru memberikan contoh. (I pay attention when the teacher gives examples.)
10	Saya memahami semua materi yang dijelaskan guru. (I understand all the material that the teacher explains.)
11	Saya sangat tertarik menggunakan aplikasi game edukasi Quizizz. (I am very interested in using Quizizz educational game application.)
12	Media aplikasi game edukasi Quizizz membuat belajar tidak membosankan. (Quizizz makes learning fun.)
13	Saya merasa lebih memahami apa yang disajikan dalam media pembelajaran ini. (I feel that I understand better what is presented in this learning media.)
14	Penggunaan aplikasi game edukasi Quizizz membuat saya lebih semangat dalam belajar bahasa Indonesia. (Using Quizizz educational game application makes me more enthusiastic about Indonesian language learning.)
15	Menurut saya aplikasi game edukasi Quizizz mudah diakses. (I think Quizizz educational game application is easy to access.)
16	Belajar dengan aplikasi game edukasi Quizizz sangat bermanfaat bagi saya. (Learning with Quizizz educational game application is very useful for me.)
17	Aplikasi game edukasi Quizizz sangat membantu dalam proses pembelajaran. (Quizizz educational game application is very helpful in the learning process.)

(continued)

 Table 2. (continued)

No	Questions
18	Aplikasi game edukasi Quizizz mudah digunakan. (Quizizz educational game application is easy to use.)
19	<i>Fitur-fitur dalam aplikasi game edukasi Quizizz sangat menarik.</i> (Features in Quizizz educational game application are very interesting.)
20	Menu dan fasilitas dalam aplikasi game edukasi Quizizz mudah dipahami dan digunakan. (Menu and facilities in Quizizz are easy to understand and use)

(Source: The researchers' document)

No	Respondent	Х	Description
1	RK	61	В
2	SR	57	В
3	RP	49	С
4	RSY	49	A
5	MN	70	А
6	J	69	A
7	SN	72	A
8	V	75	Α
9	DI	59	В
10	R	62	В
11	MI	54	В
12	SW	55	В
13	NG	74	A
14	DO	54	В
15	YFS	56	В
16	UGF	65	В
17	GDN	70	А
18	IRN	57	В
19	RCB	69	А
20	NTL	69	А
21	PAA	61	В
22	JNH	80	А
23	NVL	76	А
24	TNO	80	А
25	ALP	75	А

Table 3. Students' Questionnaire Results

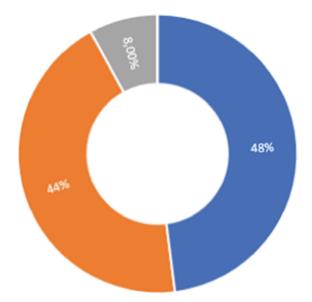


Fig. 1. Respondents' Scores Criteria in Percent. (Source: Research data)

the percentage formula to determine students' perceptions of the Quizizz educational game application in Indonesian learning, as presented in Table 4.

Based on Table 4, 48% of respondents had a very good perception, 44% had a "good" perception, and 8% had a fairly good perception. There are no respondents with a "not good" perception. The highest percentage is in the "very good" category with 48%. It indicates that about half of the sample consider Quizziz educational game application "very good." 92% of students have a "good" perception of using the Quizziz educational game application in Indonesian learning when this result is combined with 44% of students who find the app "good."

Data on students' learning outcomes in the eleventh grade of AKL 3 were obtained from tests after learning using Quizziz educational game application. The following guidelines are used to categorize test results.

Category	Score Range	F	%
Very good	66–80	12	48%
Good	51-65	11	44%
Fairly good	36–50	2	8%
Not good	20–35	-	-
	Total (N)	25	100%

Table 4. Distribution Results of Pretest and Posttest

(Source: Research data)

A = Very good: 76-100B = Good: 51-75C = Fairly good: 26-50D = Not good: 0-25

After being processed, the test results of the 25 respondents are presented in Table 5. Students' learning outcomes are summarized in Table 6.

Table 6 shows that 64% of students obtained "very good" results, and the other 36% obtained "good" results. No student scored "fairly good" and "not good."

No	Respondent	X	Description
1	RK	90	А
2	SR	75	В
3	RP	70	В
4	RSY	70	В
5	MN	90	А
6	J	90	А
7	SN	70	В
8	V	90	А
9	DI	95	А
10	R	75	В
11	MI	85	А
12	SW	80	А
13	NG	70	В
14	DO	70	В
15	YFS	75	В
16	UGF	90	А
17	GDN	80	А
18	IRN	70	В
19	RCB	90	А
20	NTL	80	А
21	PAA	90	А
22	JNH	90	А
23	NVL	90	А
24	TNO	90	А
25	ALP	90	Α

Table 5. Distribution of Pretest and Posttest Results

(Source: Research data)

Category	Score Range	F	%
Very good	66–80	16	64%
Good	51-65	11	36%
-	36–50	-	-
-	20–35	-	-
	Total (N)	25	100%

Table 6. Distribution of Pretest and Posttest Results

(Source: Research data)

3.2 Research Result Data

The data used as the X variable in this study are the calculation results of a questionnaire about students' perceptions of using Quizizz educational game applications in Indonesian learning. Meanwhile, the Y variable is students' learning outcomes (Table 7).

3.3 Normality Test Data

In this normality test, if the value is more than 0.05, the data is considered normally distributed, and the data is considered not normally distributed if the value is less than 0.05 (Gunawan, 2015). This study calculates normality using the SPSS Measurements 23 application (IMB, 2019). The researchers used a correlation test between the X and Y variables, especially students' perceptions of using Quizizz in Indonesian learning to enhance students' experiences and their impact on their learning (Table 8).

In the normality test, the result is 0.200, which is >0.05. It can be concluded that the data obtained is normally distributed.

3.4 Correlation Test

The data in this study were tested to determine the correlation between students' perceptions of using the Quizizz educational game application in Indonesian learning and its influence on students' learning outcomes. The test was carried out using SPSS Statistics 23 (IMB, 2019) (Table 9).

The correlation test on student perception variables (X) and learning outcomes (Y) obtained a result of 0.486^* . Therefore, it can be concluded that there is a correlation between the variables X and Y. The results of this correlation are at 0.40-0.70, meaning that the correlation between the two variables is considered fair.

3.5 Teaching and Learning Activities

Figure 1 shows that the students' responses to Quizizz were very good. Students' use of the educational game application Quizizz shows their enthusiasm for participating in Indonesian language learning activities. When they see their classmate's name in the top five on the quiz, they want to compete (Perdana, 2020). The result is students' desires

No	Res	X	Y
1	RK	61	90
2	SR	57	75
3	RP	49	70
4	RSY	49	70
5	MN	70	90
6	J	69	90
7	SN	72	70
8	V	75	90
9	DI	59	95
10	R	62	75
11	MI	54	85
12	SW	55	80
13	NG	74	70
14	DO	54	70
15	YFS	56	75
16	UGF	65	90
17	GDN	70	80
18	IRN	57	70
19	RCB	69	90
20	NTL	69	80
21	PAA	61	90
22	JNH	80	90
23	NVL	76	90
24	TNO	80	90
25	ALP	75	90
Total		1.618	2.055

 Table 7. Distribution of Pretest and Posttest Results

(Source: Research data)

to answer questions quickly and precisely. In addition, students often comment on the duration of the questions. Some find it too long because they want to see the results, while others find it too short because they do not have time to answer the questions. Students are also asked to play the game again or look for games with additional content when finished. It shows that students' desire and motivation to learn can increase using Quizizz educational game app (Fig. 2).

Unstandardized Residual			
N	N	25	
Normal	Normal Parameters ^{a,b}	,0000000	
Parameters ^{a,b}	Std. Deviation	7,78413559	
Most Extreme Differences	Absolute	,100	
	Positif	,099	
	Negatif	-,100	
Test Statistic		,100	
Asymp. Sig. (2-tailed)		,200c,d	

Table 8. One Sample of Kolmogorov-Smirnov Test

- a. Test distribution is normal
- b. Calculated form data
- c. Liliefors Significance Correction
- d. This is a lower bound of significance

Table 9.	One Sample.	Kolmogorov-Smirnov Test	

		Perception	Learning Outcomes
Perception	Pearson Correlation	1	486*
	Sig. (2-tailed)		,014
	Ν	25	25
Learning Outcomes	Pearson Correlation	486*	1
	Sig. (2-tailed)	,014	
	Ν	25	25



Fig. 2. The teaching and learning process with the Quizizz educational game application

4 Conclusion

The study results show that students' perceptions of using the Quizizz educational game app for Indonesian learning are good (48% have very good perceptions, and 44% have good perceptions). The correlation test obtained a result of 0.486 after calculating the correlation with students' learning outcomes (Y variable). It shows a moderate correlation between the two variables. Although this research is still in its early stages and has a small sample, it indicates that further research is needed. Students can use smartphones for learning, primarily when teachers use learning media such as Quizizz. Teachers can save students more quiz time, thereby giving students time to study and understand the material more deeply. Students also prefer to use this media because it has various interesting features that encourage them to participate in learning.

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