The Effectiveness of Using Quizizz to Improve the Achievement of Indonesian Language Learning Outcomes on Synonyms and Antonyms Material in Grade 5 Elementary School Students

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Abstract: The challenges of education have become more difficult over time. Some of these challenges include the fact that teachers/educators try to help students understand the lessons at hand, but often the results are not as expected. Students find it difficult to concentrate and understand the abstract concepts of their lessons. To deal with this problem, applications and other game systems are used that help children to understand the material. The method in this study comparative method between two groups, namely the treatment class and the control class, to assess the relationship between children's responses to Quizizz and their learning achievement. In this study, the learning system was carried out by testing the use of Quzizz material as a teaching aid with the object of the experimental class and control class, namely 5th-grade students from SD Negeri Bedug 01, Pangkah, Tegal. The results showed that Quzizz helped teaching with language materials (antonyms and synonyms), besides that students enjoyed the learning process more. This is because students do not feel pressure to learn and enjoy the learning process as a fun process for them.

Keywords: Quizizz, Language, Education, Learning Assistance

PRELIMINARY

The COVID-19 pandemic has had a significant impact on education systems around the world. Due to this pandemic condition, there has been a paradigm shift from offline to online learning. Thus, learning for students, which has been done with direct interaction, now inevitably has to change (Dubey & Pandey, 2020; Jena, 2020; Onyema et al., 2020). Distance education should be familiarised as a means of ensuring the safety and health of students and educators. However, this is of course from a health perspective. In contrast, from an educational perspective, this is a negative thing. In general, this presents a huge challenge for teachers who are used to face-to-face learning where there is physical interaction as well as ongoing emotional relationship building, but when this experience is brought online, the reality is that there are many challenges that teachers must face.

There are various challenges in online learning. The first is transitioning to online learning by improving technology skills and literacy (Basar et al., 2021; Rahman et al., 2022; Ullah et al., 2021). Open online education requires teachers to master technology and digital learning platforms. Mastering technology and digital learning literacy is not an easy process. For this reason, teachers in Indonesia have to start from ground zero and often schools do not have assistance facilities for teachers to use the available technology. Many teachers who have no prior experience with online learning technologies have to learn how to use various apps and platforms to deliver lessons. They have to understand how to organize virtual classes, give online assignments, and monitor student progress (Hussain Al-Qahtani, 2019; Raes et al., 2020). In this case, it would be helpful for teachers if the platform used is easy to use and easy to understand. Hence, we see recent developments where many developers are trying to reach the ideal level that teachers want in terms of platforms that make it easier for teachers to teach. One of the goals is to achieve creativity in learning. This pandemic situation encourages teachers to be more creative in delivering subject matter. They have to find new ways to make learning interesting and interactive in an online environment. Next, these developers also emphasize the importance of flexibility and adaptability. In this case, teachers must become more flexible and adaptable to sudden changes in learning methods and continuous technology.

The second problem is that teachers have difficulty building emotional relationships with their students. Distance learning can result in a lack of social interaction between students and teachers. This can affect the teacher's ability to understand students' needs and emotional well-being (Bellocchi, 2019; McGrath & Van Bergen, 2019). Since teachers are not close to their students, they have difficulty motivating students. In an online learning environment, teachers must find creative ways to motivate students and maintain their interest in the lesson. They have to find ways to stay connected with students and ensure that they stay focused on learning. With problems like this, the solution is that teachers must also have a platform to make it easier for students to carry out learning. The platform must be able to encourage students to be able to have an emotional drive within themselves so that they want to follow the learning process with discipline and focus on good results.

The third problem that often occurs is that students have difficulty because the teacher has obstacles in assessing and providing feedback (Mansyur et al., 2022; Sarwa, 2021; Zalsabella et al., 2020). The process of assessing and providing feedback to students is an ongoing challenge. Teachers must find ways to give tests or assignments online and must consider how to provide effective feedback in a virtual environment. This is not easy to do because teachers have limited supervision. On the other hand, teachers must also be able to motivate students to do the assignments so that students can be disciplined without needing further prompts from the teacher as to why they should do the assignments that involve the feedback process. In the face of this challenge, many teachers have been conducting various experiments and looking for innovative solutions to ensure that education still goes well amidst the pandemic. One solution that has finally been offered is by utilizing apps. With the use of apps, it is expected that teachers will more easily reach the ideal point in online learning. One of the apps that will be evaluated is Quizizz.

In general, Quizizz is an application that utilizes online technology. The function of Quizizz is to create interactive quiz games for students to engage in online classroom learning in a much more enjoyable process. The quizzes created can consist of up to four answer options, including the correct answer, and allow the addition of images to the background of the questions to attract students' attention. The addition of images is in line with the theory that visual learning is much more engaging than the Google form question method, for example, which is dominated by text so it is far from appealing to children. As of my last knowledge update in January 2022, Quizizz is an online learning platform that allows teachers to create and share quizzes with their students. It is widely used as an educational tool, especially in remote or blended learning environments. While the core functionality of Quizizz revolves around creating and taking quizzes, it doesn't have a comprehensive theoretical framework in the same way some educational theories might. However, we can discuss some educational theories and principles that align with the use of platforms like Quizizz: Constructivism: Quizizz can be aligned with constructivist learning theories, where learners actively build their knowledge and understanding through experiences.

The platform engages students in the learning process by allowing them to answer questions, receive instant feedback, and learn from their mistakes. Active Learning:

Quizizz promotes active learning by encouraging students to participate actively in the learning process. Through interactive quizzes, students are actively engaged in the material rather than passively receiving information. Formative Assessment: The platform supports formative assessment practices, allowing teachers to gauge student understanding during the learning process. This enables teachers to provide timely feedback and adapt their instruction based on student needs. Game-Based Learning: Quizizz incorporates gamification elements, making the learning experience more enjoyable and motivating for students. Gamification can enhance engagement and motivation, contributing to a positive learning environment. Adaptive Learning: Some features in Quizizz may offer adaptive learning experiences, tailoring questions based on individual student performance.

This aligns with personalized learning theories, where instruction is adjusted to meet the unique needs of each student. It's important to note that the effectiveness of Quizizz or any educational technology depends on how it is integrated into the overall instructional design and pedagogical approach of a course. Teachers play a crucial role in creating meaningful learning experiences using such tools. For the latest information on Quizizz or any changes to its features or theoretical underpinnings, I recommend checking the official Quizizz website or contacting the company directly. Another advantage of Quizizz also allows the creation of quizzes for homework, which can be accessed by students anytime and anywhere as long as they do not exceed the set time limit. Because of the system owned by Quizizz, students cannot cheat on each other in learning. One of the reasons is that in the Quizizz system, the questions to students are already randomized, and therefore students cannot see each other's friends. After completing the quiz, students can know their rank compared to all students who took the quiz. Furthermore, they can also see the questions and the correct answers.

Quizizz provides many conveniences and benefits for teachers, namely automatic grading and providing detailed analyses of each item that can be downloaded in Excel file format. The report includes information on the correct and incorrect answers of each student, as well as the percentage of achievement in the quiz for the whole class. In addition, the quiz results of individual students can be sent via electronic mail to their parents. Aside from the functional aspect, Quizizz is also designed to make the learning experience more interesting for students. They will feel the challenge of being scored

based on speed and accuracy in answering. In addition, direct competition is expressed through rankings that are updated in real time during the quiz. Users can also enjoy a positive atmosphere with the presence of motivating musical accompaniment, as well as entertaining and motivating memes.

This study was designed to look at this aspect of Quizizz in children at SD Negeri Bedug 01 in Pangkah District, Tegal Regency. The lesson chosen as the object was a lesson on antonyms and synonyms. By separating the control and treatment classes, this research was conducted to understand how the learning process progressed. The application Quizizz is commonly used in elementary schools as an engaging and interactive tool for educational purposes. Here are some ways in which Quizizz can be applied in elementary school settings: Formative Assess Teachers can use Quizizz to create formative assessments to check students' understanding of various subjects or topics. Immediate feedback provided by Quizizz allows teachers to identify areas where students may need additional support. Homework Assignments: Teachers can assign Quizizz as homework to reinforce concepts learned in the classroom.

Students can complete quizzes at their own pace, providing flexibility in their learning. Review Sessions: Before exams or assessments, teachers can use Quizizz as a review tool to help students revise and reinforce key concepts Gamified Learning: The gamification features of Quizizz, such as points, timers, and leaderboards, make learning more engaging and enjoyable for elementary students. The competitive element can motivate students to participate actively. Customized Quizzes: Teachers have the flexibility to create customized quizzes tailored to the specific curriculum or learning objectives. This allows for a more personalized learning experience for students Digital Learning Environment: Quizizz provides a digital platform for learning, contributing to the development of digital literacy skills among elementary students.Peer Learning: Teachers can design quizzes that encourage collaboration and discussion among students, promoting peer learning.Data Analysis:The platform allows teachers to analyze quiz results, track individual student progress, and identify trends in the overall class performance.Adaptive Learning Paths:Some platforms offer adaptive learning features, adjusting quiz difficulty based on individual student performance, providing a more tailored learning experience.Motivational Tool: Quizizz can serve as a motivational tool, as students often find the interactive and game-like nature of quizzes appealing.

When implementing Quizizz or any other educational technology in elementary schools, it's essential for teachers to integrate it effectively into their overall instructional strategy. Proper guidance and supervision ensure that the technology enhances the learning experience for students. Additionally, considering the age-appropriateness of content and monitoring screen time are important factors in elementary school settings.

METHOD

This study uses the comparative method between two groups, namely the treatment class and the control class, to assess the relationship between children's responses to Quizizz and their learning achievement. The basis of the research is the comparative method. The comparative method is a research approach in which two or more groups are compared to see the differences or relationships between the observed variables. In this case, the treatment (experimental) and control classes were compared to see if there was a relationship between responses to Quizizz and learning achievement. Creating an instrument for a Quizizz study typically involves developing tools to collect data and assess specific variables related to the research objectives. The instruments may include surveys, questionnaires, or other measurement tools. There are two groups in this study:

1. Control Class:

    a. The control class in this study was SDN Bedug 01 in Pangkah District, Tegal Regency.

    b. The number of students in the control class was 20 students.

2. Experimental Class (Treatment):

    a. The number of students in the experimental (treatment) class was also 20 students.

    b. The experimental class may have engaged in the use of Quizizz as part of their learning approach.

3. Objectives of the Study:

    The purpose of this study was to find out whether children's responses to Quizizz affected their learning achievement.

4. Research Design:

    This research design used an experimental approach with two groups, namely the treatment class and the control class. The control class was not involved in the use of

Quizizz, while the treatment class used this platform in the learning process this conducted in one semester. Research Variables:

a. Independent variable: Children's response to Quizizz.

b. Dependent variable: Children's learning achievement.

INDEPENDENT VARIABLE: X1 : CHILDREN'S FAVOURITISM IN QUIZIZZES	→	DEPENDENT VARIABLE: Y : CHILDREN'S LEARNING OUTCOMES
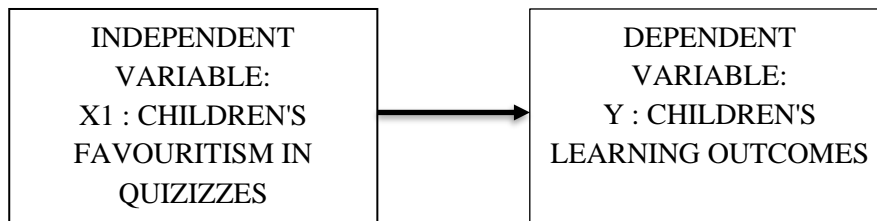
5. Data Analysis:

Data on children's responses to Quizizz and learning achievement will be collected and analyzed to see if there is a significant relationship or difference between the treatment and control classes.

6. Hypothesis:

The results of this study are expected to provide information on whether the use of Quizizz influences children's learning achievement. If there is a significant difference, this can provide recommendations for further integrating this tool into learning.

7. Implications and Recommendations:

The results of this study can provide implications for the development of learning methods by utilizing interactive tools such as Quizizz. Recommendations can also be provided to improve the effectiveness of using this tool in the educational context.

RESULT

Table 1. Control Class Test Results

No Sequence	Student Name	Score		
		Before	Cycle 1	Cycle 2
1	Febby Apriliyani	60	65	70
2	Aniqotussafinah	70	70	75
3	Arifa Salma Kholidah	60	60	60
4	Daffa Dwi Saputra	55	65	70
5	Danu Maulana Wijaya	60	70	70
6	Dzakira Afkani	60	70	70

7	Florenza Evelyn Rose Tulaso	50	65	70
8	Hikmah Asmara	50	60	65
9	Iftina Assyabiya Rafifa	55	60	65
10	Mohammad Rizki Pratama	60	70	70
11	Muhammad Aryan Naufal	55	75	75
12	Muhammad Fahmi Nasrullah	55	75	70
13	Muhammad Faris Azami	60	75	80
14	Muhammad Farzan Ahza Argani	70	70	70
15	Muhammad Novel Muzaki	55	70	70
16	Muhammad Rangga Nur Fauzi	60	60	70
17	Muhammad Yusuf Prasetya	65	65	70
18	Pandu Dwi Notonegoro	60	70	70
19	Sakha Arkana Abdullah	60	75	70
20	Selly Febriani Arisqi	50	60	70
Toatal		**1170**	**1350**	**1400**
Average		**58,5**	**67,5**	**70**

Table 2. Experiment Class Test Results

No Sequence	Student Name	Score		
		Before	**Cycle 1**	**Cycle 2**
1	Nayla Indah Safitri	65	75	85
2	Nazwa Nur Azizah	60	70	90
3	Nurul Aeni Mustaghfiroh	65	65	90
4	Nurul Widya Ningsih	55	70	86
5	Putri Apriliya	60	75	90
6	Raras Kartika	65	75	90
7	Rizki Julia Rahma Dhani	50	65	80
8	Salwa Nurafiyah	50	60	85
9	Syafa'atus Zahra	55	75	90
10	Yasmin Azzahra	60	75	80
11	Yusuf Ramdani	65	80	85
12	Akhmad Nurfariz	50	70	85
13	Fadil Asraful Anam	50	70	85
14	M. Rifqi Ardi Maulana	50	70	90
15	Muhammad Firdaus	70	70	90
16	Nur Aulia Safitri	60	80	90
17	Sahila Agustina Fitriani	65	75	80
18	Vina Aulia	60	70	85
19	Nailatul Azzaqiyah	65	75	80
20	Muhammad Arefan	50	60	75
Total		**1170**	**1425**	**1711**
Average		**58,5**	**71,25**	**85,55**

The results of the progress in the table show that from the Post-Test, the scores of the treatment class showed a much more significant increase. Next, a survey was conducted on students from the treatment class. The results of the study on the treatment class students tried to identify how they felt after using Quizizz with a Likert scale. The search results showed the following results.

Table 3. Result of treatment class

Q1	Q2	Q3	Q4	Q5	Average
5	5	4	3	3	4
5	5	3	5	5	4,6
5	5	4	4	5	4,6
3	4	3	3	3	3,2
4	5	5	5	4	4,6
4	4	5	5	4	4,4
5	5	5	5	4	4,8
5	4	3	4	4	4
5	5	4	5	3	4,4
4	5	2	4	3	3,6
5	3	3	3	3	3,4
3	3	5	3	3	3,4
3	3	5	3	4	3,6
5	5	4	4	4	4,4
4	4	4	5	5	4,4
5	5	5	4	5	4,8
3	4	4	3	3	3,4
4	4	4	5	1	3,6
4	3	3	3	3	3,2
3	3	3	3	2	2,8
4,2	4,2	3,9	3,95	3,55	3,96

The following are the results of data processing between the suitability of grades and student achievement.

Table 4. ANOVA Test

ANOVA^a

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	195.470	1	195.470	17.638	.001^b
	Residual	199.480	18	11.082		
	Total	394.950	19			

a. Dependent Variable: Y1
b. Predictors: (Constant), X1

In this context, the ANOVA results show that the regression model constructed has a significant influence on the dependent variable, in this case, test scores (Y1). This is evident from the high F value and the very low p value (.001). This means that there is enough statistical evidence to reject the null hypothesis that there is no relationship between the independent variable (X1) and the dependent variable (Y1).

Meanwhile, the residual sum of squares (199,480) indicates how much variability cannot be explained by the model and is the residual of the total variability (394,950 - 195,470 = 199,480). The conclusion from this analysis is that the regression model created can explain variations in the dependent variable (Y1), and the independent variable (X1) and has a significant influence on Y1.

Table 5. Result of Coefficients[a]

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	64.985	4.953		13.121	.000
	X1	.519	.124	.704	4.200	.001

a. Dependent Variable: Y1

In this context, the regression analysis results show that your regression model has an intercept of 64.985. This means that if all independent variables are equal to zero, then the dependent variable is expected to have a value of approximately 64.985. The coefficient for X1 is 0.519, with a normalized beta coefficient of 0.704. This indicates that every one-unit increase in the independent variable X1 correlates with an increase of approximately 0.519 units in the dependent variable Y1. The high t-value (4.200) for X1 together with the very low p-value (0.001) indicates that the relationship between X1 and Y1 is statistically significant. In other words, X1 has a significant impact on the dependent variable Y1 in this model. Based on the previous regression results, the linear regression formula is:

$$Y=64.985+0.519X+\varepsilon$$

This means that for every one-unit increase in the independent variable X, the dependent variable Y is expected to increase by approximately 0.519 units. The intercept (the value of Y when X=0) is 64.985.

DISCUSSION

Language learning is a process that involves developing communication skills, including listening, speaking, reading, and writing. It is not just about remembering words or grammar rules, but also about the ability to use the language appropriately and effectively in real communicative situations (Wang et al., 2021).

Not all teaching methods are suitable for teaching language. For example, in the "Teach Test Teach" system, this approach is often considered boring and the results are limited to students being able to read but not use language to communicate(Ellis et al., 2019; Gacs et al., 2020; Setiyadi, 2020). The approach where teachers first teach new material to students, then test their understanding through exercises or tests, and finally provide feedback or additional understanding if needed is too monotonous and does not

help students to develop themselves. This method is not very efficient in language learning due to the lack of focus on the use of language in actual communicative contexts.

The system that is then often used is Task Based Learning. With this TBL concept, the learning method focuses on a specific task or activity that requires the use of language to achieve a specific goal. (Dewi et al., 2020; Willis, 2021). Students are given challenging tasks that require the ability and demand to communicate in the target language. The learning process occurs as students endeavor to complete the task. This creates a natural context where students use the language for communicative purposes, promoting more effective learning. Therefore, it is important to create tasks that are not boring for students. The tasks should be challenging, and relevant and inspire students to learn with passion. Thus, students will be more engaged and motivated to improve their language skills. This is what is then offered in the Quizizz app.

Quizziz is designed to make the questions interesting for students. The challenge of competition provides additional motivation for students to achieve certain targets. This creates a dynamic atmosphere and livens up the learning atmosphere. The use of color in this platform helps reduce the pressure that students may feel. Based on color psychology, dark, stark colors such as black and white on answer sheets create a more serious, pressing atmosphere and can increase stress. Conversely, light colors are uplifting and help students enjoy the learning process (Bleicher, 2023; Thejahanjaya & Yulianto, 2022; Yu et al., 2020).

Color psychology has been shown to have a huge influence on mood and concentration. Bright colors are often associated with excitement and vitality, while monochromatic colors such as black and white can create a more serious and tense atmosphere. Through this color psychology, conditioning is created where students are encouraged to enjoy the learning process and not just look for results. A focus on results can put pressure on the students' development (Zimmer & Matthews, 2022). In addition, Quzizz's form of learning that focuses on competition and practical experience also has a very good impact on children's development. It encourages children to get learning material in the form of real experiences or situations helping students to relate information to a more concrete context. This in turn facilitates their recall and understanding of the material.

Creating a fun learning experience helps students develop their logic and thinking. They are more likely to engage and think creatively when they enjoy the learning process. The results of the pre-test and post-test showed that the learning method using Quizziz resulted in an excellent development in students' way of thinking. This demonstrates the effectiveness of this approach in improving students' understanding and skills. The use of Quizziz in learning brings many benefits, including increasing student motivation, reducing pressure, and accelerating the learning process. The use of bright colors and attractive visual displays helps to create an enjoyable learning experience, which in turn enriches students' understanding and skills in language.

CONCLUSION

This research shows that the use of learning platforms such as Quizizz can provide significant benefits in the education process. Here are some key points that can be outlined from these findings: Reduces Pressure on Students: Quizizz can reduce the pressure or stress that students may feel during the learning process. The interactive and fun quiz format can create a more relaxed and enjoyable learning environment. This helps students feel more comfortable and more open to receiving learning material. Making Learning Fun: The presence of game or quiz elements in the learning process makes it more interesting and entertaining for students. This can increase their motivation to engage more actively in the learning material.

Improving Learning Effectiveness and Efficiency: Through the use of Quizizz, the learning process becomes more effective and efficient. Students can engage in quizzing independently or in groups, allowing them to assimilate information in a more effective manner than conventional learning methods. Facilitates Faster Understanding: The interactivity and repetition offered by Quizizz can help students understand the material faster. They can identify their weaknesses and improve their understanding through repetition of quizzes or exercises. Congruence with Gradual Education Process and Scaffolding: The concept of gradual learning and the building of "scaffolding" (support structures) are principles of effective education. Systems like Quizizz can be well integrated into this approach, providing progressively increasing levels of difficulty as students progress. This allows them to build a solid foundation before stepping into the next level of education.

Better Learning Outcomes: By building education gradually and providing satisfying learning experiences, the learning outcomes achieved by students can improve significantly. They are more likely to achieve the expected level of education. Thus, the use of learning platforms like Quizizz can play a significant role in improving the quality of education. Applying engaging, interactive, and gradually structured learning methods can be of great benefit to students, helping them better achieve their educational potential.

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