# Effectiveness Of Quizzizz Assessment To Improve Social Attitudes Of Elementary School Students

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**ABSTRACT:** This study aims to analyze changes in students' social attitudes through the use of quizizz-based assessments. Effective learning involves not only the transfer of knowledge, but also the development of social attitudes and interaction skills. The method used is quantitative with a quasi-experimental design, namely pretest-posttest control group. The study population consisted of students in grades III-VI of SD N Pengkok 3 who were assumed to be able to operate gadgets. The sample taken by random sampling was 20 students from grade V. Data were collected through a validated social attitude questionnaire, and analyzed using a paired sample t-test after going through normality and homogeneity tests. The results of the analysis showed that the significance value of the t-test was 0.041 in the experimental group and 0.005 in the control group, which was smaller than 0.05, indicating a significant difference between social attitudes before and after using quizizz. The N Gain test showed a more significant increase in the experimental class with an average N Gain value of 0.3553 (moderate category), compared to the control class which only reached 0.1235 (low category). The results of the independent t-test showed that social attitudes in the experimental class were better than those in the control class with a significance value of 0.021. Thus, the use of quizizz-based assessments has proven effective in providing changes in students' social attitudes, strengthening interaction and collaboration among students.

**Abstrak**: Penelitian ini bertujuan untuk menganalisis perubahan sikap sosial peserta didik melalui penggunaan asesmen berbasis quizizz. Pembelajaran yang efektif tidak hanya melibatkan transfer pengetahuan, tetapi juga pengembangan sikap sosial dan keterampilan interaksi. Metode yang digunakan adalah kuantitatif dengan desain quasi-eksperimen, yaitu pretest-posttest control grup. Populasi penelitian terdiri dari siswa kelas III-VI SD N Pengkok 3 yang telah diasumsikan dapat mengoperasikan gadget. Sampel yang diambil secara random sampling adalah 20 peserta didik dari kelas V. Data dikumpulkan melalui kuisioner sikap sosial yang telah divalidasi, dan dianalisis menggunakan uji t paired sample setelah melalui uji normalitas dan homogenitas. Hasil analisis menunjukkan bahwa nilai signifikansi uji t adalah 0,041 pada kelompok eksperimen dan 0,005 pada kelompok kontrol, yang lebih kecil dari 0,05, mengindikasikan adanya perbedaan signifikan antara sikap sosial sebelum dan sesudah penggunaan quizizz. Uji N Gain menunjukkan peningkatan yang lebih signifikan pada kelas eksperimen dengan nilai rata-rata N Gain sebesar 0,3553 (kategori sedang), dibandingkan dengan kelas kontrol yang hanya mencapai 0,1235 (kategori rendah). Hasil uji independent t-test menunjukkan sikap sosial pada kelas eksperimen lebih baik dibandingkan dengan kelas kontrol dengan nilai signifikansi sebesar 0,021. Dengan demikian, penggunaan asesmen berbasis quizizz terbukti efektif dalam memberikan perubahan sikap sosial peserta didik, memperkuat interaksi dan kolaborasi di antara peserta didik.

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## INTRODUCTION

Learning is a process given to students through teacher guidance with the aim of increasing students' knowledge in the classroom (Citra & Rosy, 2020) . In the implementation of learning, it

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involves the teaching and learning process carried out by students and teachers. Teaching activities involve the role of teachers in providing efforts to create harmonious communication and interaction between teachers and students (Putri et al., 2020) . The process carried out is not only about the transfer of knowledge, but also the development of aspects of attitudes and skills (Oktiani, 2017) . The learning carried out is expected to be able to develop the mindset, skills and attitudes of students optimally, especially in interacting with both teachers and peers. One of them is through the development of students' social attitudes in learning (Sevtriani et al., 2024) .

According to Ardianto et al. (2022) social attitudes can be interpreted as a constellation of student development schemes in social, moral and emotional aspects. Social attitudes that can be formed in schools include honesty, discipline, responsibility, tolerance, mutual cooperation, proactive and responsive, peace-loving, polite, and self-confident (Samsudin & Iffah, 2020) . This scheme does not just appear but must be prepared through stimulus so that it can develop optimally. The school environment is an ideal place to support the development of students' social attitudes (Rismayani et al., 2020) . Through the learning process, the school environment can have a major influence on the formation and development of students' attitudes (Wiguna, 2017) . Teachers have a central role in developing social attitudes through interactive and relevant teaching and learning activities. However, there are still many challenges faced in improving students' social attitudes. One of them is the lack of active participation in the learning process and the lack of support from the surrounding environment (Efendi et al., 2017) . This is reflected in the results of the initial survey which showed that many students have not shown optimal social attitudes such as honesty, discipline, self-confidence, responsibility, politeness, and caring. According to Ardianto et al. (2022) one of the factors that influences students' social attitudes is assessment. Paper-based assessments allow competitive students to create a less competitive learning environment, while interactive technology-based assessments can encourage students to be open and helpful to each other, creating a more relaxed atmosphere and increasing self-confidence and social interaction (Ariza, 2024) . In addition, assessments designed using technology allow students to develop social skills through group activities or collaborative challenges so that they can learn to communicate effectively and listen to each other so that common goals can be achieved (Suarditha et al., 2019) . To overcome these challenges, educational technology is needed as an alternative to improving the quality of learning, namely through the *Quizizz media.* (Ramadan, 2024) .

*Quizizz* is an interactive and easy-to-use online assessment platform through its sophisticated features that can make the evaluation process more interesting and productive so that students are more motivated to learn (Ardianto et al., 2022) . According to Rahman et al., (2020) , the *Quizizz application* is a free game-based online learning platform used in teaching and learning activities to increase student enthusiasm and motivation as well as the results of the learning process. Meanwhile, Nur & Mannuhung (2022) stated that *quizizz* is an interactive learning platform that allows users to create and take quizzes online. This tool stimulates students' interest in repeating lesson materials and conducting group discussions (Asshidiq & Rahmawati, 2024) . According to Candrasari & Munandar (2023) , *Quizizz* is an online media that is considered quite effective in the context of learning. *Quizizz* can be an alternative for learning evaluation for students, and allows monitoring and analysis of questions per item, so it is useful in assessing learning outcomes (Tirtawati, 2020) . This certainly has the potential to change their social attitudes, such as cooperation, communication, and self-confidence (Damayanti et al., 2021) .

Research conducted by Indah et al. (2024) , Adnan & Adi (2024) and Rosiani (2021) explains that the use of *quizizz media* can improve social attitudes of cooperation in implementing learning. In addition, research conducted by Alis (2023) explains that assessment with the help of *quizizz media* can help students improve their honesty. Uncontrolled student activities can cause them to be dishonest in doing tests. If the assessment is carried out dishonestly, the results obtained from the process will be invalid. Research conducted by Damayanti et al. (2021) states that quizizz media can be operated by students who have the confidence that they will be able and successful in learning activities.

Based on the background above, the purpose of this study is to analyze changes in social attitudes in students in the use of *quizizz- based assessments* at SD N Pengkok 3.

## RESEARCH METHODS

This research was conducted using a quantitative method with a quasi -experimental research type. This design has the characteristic that the samples used for the experiment and the control group are selected randomly from a certain population (Sugiyono, 2018). The research design conducted that is *pretest posttest control group design* . The design of this study consists of two groups, namely the experimental group and the control group. The experimental group was given assessment treatment using *quizz media,* while the control group used conventional-based assessment. The population in this study were classes III-VI of SD N Pengkok 3 who were already able to use *gadgets*. Then, the sample was selected using the random sampling technique, namely the selection of research samples where members of the population have the same opportunity to be selected as part of the sample (Sugiyono, 2022) . The sample in this study was class VA and class VB of SD N Pengkok 3, each with 20 students with class VA as the control group and class VB as the experimental group.

The instrument in this study was a social attitude questionnaire sheet using a validated Likert scale. Students were then given a questionnaire leaflet before and after the assessment using *quizizz media* in the experimental class and conventional assessment in the control class . The data analysis technique used after the data was collected was using the paired sample t-test to determine the difference in social attitude results before and after using *quizizz media* in the assessment conducted. The test hypothesis is:

$H_0: \mu_1 = \mu_1$(there is no difference in the average *pretest* and *posttest* )
$H_1: \mu_1 \neq \mu_1$(there is a difference in the average *pretest* and *posttest* )

Next, an *independent t-test was conducted* to determine the differences in social attitude results with *quizizz media assessment* and conventional assessment. Previously, a prerequisite test was conducted through a normality test and a homogeneity test.

$H_0 : \mu_1 \leq \mu_2$     (Average social attitude students in the experimental group are less than or equal to the average social attitude students in the control group)

$H_1 : \mu_1 > \mu_2$     (Average average social attitudes students in the experimental group have more than average social attitudes students in the control group)

*N-Gain* calculation is carried out to measure the extent to which the social attitudes of students have increased before and after treatment. According to Hake (1998), the formula for the calculation is:

$$N - Gain = \frac{skor\ posttest - skor\ pretest}{skor\ maksimal - skor\ pretest}$$

with criteria as following .

Table : 1 Criteria *N Gain*

| Skor N Gain | Criteria |
|---|---|
| $0 < N\ Gain < 30$ | Low |
| $30 \leq N\ Gain \leq 70$ | Currently |
| $N\ Gain > 70$ | Tall |

Source : Hake (1998)

## RESULTS AND DISCUSSION

The study was conducted to test whether there was a difference in the average results of social attitudes with assessments using *quizizz* media and conventional assessments . The results of the study were conducted through analysis of the results of the students' social attitude questionnaire . The following is a descriptive statistical analysis of the results of social attitudes consisting of pretest and posttest in the control class and experimental class.

Table : 2 Analysis Descriptive

| | N | Minimum | Maximum | Mean | Standard Deviation |
|---|---|---|---|---|---|

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| | | | | | |
|---|---|---|---|---|---|
| Pretest_Experiment | 20 | 37.00 | 97.00 | 68.3500 | 17.28180 |
| Posttest_Experiment | 20 | 47.00 | 100.00 | 78.5000 | 16.67491 |
| Pretest_Control | 20 | 43 | 83 | 61.90 | 10.437 |
| Posttest_Control | 20 | 58 | 81 | 68.55 | 7.803 |
| Valid N (listwise) | 20 | | | | |

The results above show that the amount participant students involved in study namely 20 participants educate each other class . In class experiment , obtain results that the minimum pretest score is 37 and the final score is 37 . The maximum pretest was 97 with a pretest average of 68.35 and a standard deviation is 17.281. The minimum posttest value of 47 and the value The maximum pretest is 100 with a pretest average of 78,500 and a standard the deviation is 16.679. While in the class control , the minimum pretest value is 43 and the final value is The maximum pretest was 83 with a pretest average of 61.90 and a standard of 61.90. deviation is 10.437. The minimum posttest value of 58 and the value The maximum pretest was 81 with a pretest average of 68.55 and a standard of 68.55. the deviation is 7.803.

After the analysis process descriptive statistics, normality test was performed For know whether the data is normally distributed or not no . Tests conducted using the *Shapiro Wilk* test with Lots sample of 20 participants educate . The following This served normality test results on the results *pretest* and *posttest* on attitudes social participant educate .

Table: 3 Normality Test Results

| | Shapiro Wilk | | |
|---|---|---|---|
| | Statistics | Statistics | Statistics |
| Pretest_Experiment | .958 | .958 | .958 |
| Posttest_Experiment | .946 | .946 | .946 |
| Pretest_Control | .973 | .973 | .973 |
| Posttest_Control | .915 | .915 | .915 |

Based on Table 3 it is obtained that mark significance in the Shapiro Wilk test on the pretest and posttest results class experiment are 0.506 and 0.314. While mark significance in the Shapiro Wilk test on the results pretest and posttest class control are 0.824 and 0.079. The significance value the more big from 0.05 to can concluded that the data comes from from population normally distributed . Furthermore, a homogeneity test was conducted to determine the similarity of variances of the pretest and posttest results in the experimental class. The results of the homogeneity test are presented in Table 4 below.

Table: 4 Results of Pretest and Posttest Data Homogeneity Test Class Control and Class Experiment

| | Levene Statistics | df1 | df2 | Sig. |
|---|---|---|---|---|
| Experiment_Results | .004 | 1 | 38 | .948 |
| Control_Results | .908 | 1 | 38 | .347 |

Based on Table 4 it is obtained that mark significance of 0.948 in class experiment and 0.347 in class control more big from 0.05 to can concluded that the data is homogeneous . After prerequisite test conducted in the form of normality tests and homogeneity tests a paired sample t-test was conducted on each class For know whether there is average difference before and after the treatment given . The results of the t- test can presented in Table 5 below .

Tabel : 5 Hasil Uji *Paired Sample T-Test*

| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|---|
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | Mean | |
| | | | | | Lower | Upper | | | |
| Pair 1 | Pretest - | -10.150 | 20.721 | 4.63356 | -19.848 | - | -2.191 | 19 | .041 |

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| | | | | | | - | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Posttest | | | | | .45185 | | | |
| Pair 2 | Pretest - Posttest | -6.6500 | 9.4883 | 2.12166 | -11.090 | -2.2093 | -3.134 | 19 | 0.005 |

Based on Table 5, it is obtained that the significance value is 0.041 in the experimental class and 0.005 in the control class. The value $t_{hitung}$ is 2.191 in the experimental class and -3.134 in the control class. While the value $t_{tabel}$ obtained is 1.724 so that the value $t_{hitung} > t_{tabel}$ and significance value are <0.05. It can be concluded that $H_0$ rejected and $H_1$ accepted, namely there is a difference in social attitudes before and after the use of assessment using quizizz media and there is a difference in assessment before and after conducting conventional assessment. This means that there is a change in social attitudes in the implementation of assessment using *quizizz media* and also conventional assessment. To find out the increase in social attitudes in each experimental class and control class, the N Gain test was carried out. This test can done by calculating the N-Gain Score.

Tabel : 6 Uji N Gain Score

| | OF | Minimum | Maximum | Mean |
|---|---|---|---|---|
| NGain_Experiment | 20 | -2.50 | 2.67 | .3553 |
| NGain_Control | 20 | -.88 | .49 | .1235 |

Based on the table above , obtained that the average N Gain score in class experiment is 0.3553 which is in the category medium . This means that the use of quizizz media in assessment effective in increase attitude social participant educate . Meanwhile , the average N Gain score in class control of 0.1235 which is in Category low . This means that the assessment conventionally done not enough effective in increase attitude social participant educate .

Next , will an *independent t-test* was conducted to know difference attitude social in assessment with *quiz* media and assessment conventional . Previously, prerequisite tests were carried out, namely normality tests and homogeneity tests. Normality tests on the results posttest of each class control show that the data is normally distributed ( results can seen in Table 3). Homogeneity test from results posttest *quizizz* media assessment and assessment conventional can seen in the table following .

Table: 7 Homogeneity Test of Posttest of Experimental Class and Control Class

| Levene Statistics | df1 | df2 | Sig. |
|---|---|---|---|
| .745 | 1 | 38 | .055 |

Based on Table 5 above, it shows that the significance value of 0.055 is greater than 0.05 so it can be concluded that the data comes from a homogeneous variance. Furthermore, an *independent t-test can be conducted* to determine the differences in social attitude results in the experimental class and the control class.

Table: 8 Results of Independent T-Test

| | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | Lower | Upper |
| Hasil | Equal variances assumed | 2.417 | 38 | .021 | 9.95000 | 4.11670 | 1.61617 | 18.28383 |
| | Equal variances not assumed | 2.417 | 26.941 | .023 | 9.95000 | 4.11670 | 1.50236 | 18.39764 |

The table above show that mark significance at *equal variances assumed* of 0.021. The value is less

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than 0.05 so it $H_0$ is rejected which can be concluded that the average social attitude in the experimental class is greater than the average social attitude in the control class. This means that the social attitude in the class given treatment with *quizizz assessment* is better than the social attitude in the assessment given conventionally.

**Discussion**

The results of the analysis in Table 5 show that the results of the t-test, which show a significance value of 0.041 (less than 0.05) and a value $t_{hitung}$ greater than $t_{tabel}$. Thus, $H_0$ it is rejected, which indicates a difference between *the pretest* and *posttest values. A* negative value indicates an increase from $t_{hitung}$ *the pretest* to *the posttest value*. This means that there is a change in social attitudes with the implementation of *quizizz- based assessments* . Table 8 shows that the significance value at *equal variances assumed* is 0.021. This value is less than 0.05 so $H_0$ it is rejected, which can be concluded that the average social attitude in the experimental class is greater than the average social attitude in the control class. This means that the social attitude in the class given treatment with *quizizz assessment* is better than the social attitude in the assessment given conventionally. This is reinforced by further testing using the N Gain test, which states that the average N Gain score in the experimental class is in the moderate category. This means that the use of quizizz media in the assessment is effective in improving students' social attitudes. Meanwhile, the average N Gain score in the control class is in the low category. This means that the conventional assessment conducted is less effective in improving students' social attitudes.

The results of this study are similar to research by Ramadhan (2024) which showed that after the implementation of *quizizz- based assessments*, participants' behavior was very good by treating classmates without discrimination when working in task groups. They were also active in participating, asking questions, and providing answers. All students showed good social attitudes by contributing to class discussions. In line with research conducted by Ardianto et al. (2022) emphasized that the public's attitude towards the use *of quizizz* will be a form of acceptance if *quizizz is considered* easy to understand. This condition also needs to be supported by the ease of group learning for students for peer coaching anytime and anywhere with community technology. Similar research conducted by Citra & Rosy (2020) showed that students can obtain some information through the *quizizz application* and students can collaborate with their friends and share with teachers. So that students have motivation about the benefits of using the *quizizz application media* to collaborate with friends. According to Nasibah & Widiyanto (2023) , it was emphasized that *quizizz* -assisted assessments were able to improve students' social attitudes in ecology and biodiversity material, as evidenced by an increase in students' social attitudes from 66.58 to 80.51.

Based on the results of observations of changes in social attitudes after the use of the *quizizz assessment* , it was obtained due to several factors such as ease of use of the media, using *gadgets* in implementing learning can actually increase student motivation in learning because they are more interested and have a high curiosity (Noor, 2020; Rabiatul et al., 2024; Salam et al., 2022) . In addition, this media can make students coordinate with other friends and opportunities to collaborate (Muliani, 2022 and Nuralisa & Qamariah, 2024) . In addition, support from teachers in facilitating the use of this technology also plays an important role. When teachers actively integrate *quizizz* in the assessment, students will feel more focused and motivated to participate (Solikah, 2020) . This creates a more interactive and two-way learning environment, where students not only focus on academic results but also develop social skills. All of these factors have an impact on a positive learning atmosphere, where students not only learn from the material taught, but also learn from interactions with their friends, resulting in good social attitudes in group collaboration (Indah et al., 2024) . In other words, the success of implementing *quizizz* in an educational context lies not only in the application itself, but also in how the application is used in a broader learning context, involving social interaction, teacher support, and active participation from students.

**CONCLUSION**

Based on the results of the study, there was a significant difference between social attitudes before and after using *Quizizz* , which means that interactive media such as *Quizizz* can increase participation and collaboration among students. In addition, the average social attitude in the experimental class was greater than the average social attitude in the control class. This means that the social attitude in the class given treatment with the *quizizz assessment* is better than the social attitude in the assessment given conventionally. Factors such as ease of use, teacher support, and

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opportunities to collaborate also contributed to this positive change. Thus, the implementation of *Quizizz* not only improves academic outcomes but also strengthens students' social skills in a more interactive learning environment.

**SUGGESTION**

Based on the conclusion, the researcher makes several suggestions as follows: (1) Teachers are advised to develop learning media by utilizing *quizizz media* or similar applications; (2) Schools should provide facilities that support Android media-based learning; (3) Researchers are advised to explore learning models that can be integrated with *quizizz media* or similar, in order to optimize changes in students' social attitudes. In addition, further research is needed on *quizizz media* to provide more recommendations to teachers in creating effective learning.

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