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Implementation of *Quizizz* as an Evaluation Media in Mathematics Learning

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Abstract: This study aims to describe the implementation of *Quizizz* as an evaluation medium in mathematics learning on integer material for seventh-grade students at *SMP Negeri* 5 Babelan. The study employed a qualitative descriptive approach involving 33 seventh-grade students and two mathematics teachers selected through purposive sampling. Data were collected through observations, interviews, questionnaires, and documentation, and analyzed using qualitative descriptive analysis through data reduction, data display, and conclusion drawing. The findings revealed that the implementation of *Quizizz* created a more interactive and engaging mathematics evaluation environment through gamification features such as leaderboards, avatars, music, and real-time feedback. Questionnaire results indicated that 91% of students reported increased enthusiasm for mathematics evaluation, 88% perceived *Quizizz* as an attractive and interactive evaluation medium, 82% stated that the platform facilitated their understanding of the questions, and 97% expressed their willingness to use *Quizizz* in future learning activities. Classroom observations and interview findings further showed that students participated more actively than during conventional paper-based evaluations, while teachers reported that the automatic reporting feature simplified score analysis and enabled them to identify students' misconceptions in integer operations more efficiently. Nevertheless, the implementation was constrained by unstable internet connectivity, limited internet quotas, unequal smartphone performance, and challenges in maintaining academic integrity during online assessment. These findings demonstrate that *Quizizz* not only enhances students' engagement and participation in mathematics evaluation but also improves the efficiency of teachers' assessment practices, highlighting its potential as an effective digital evaluation medium when supported by adequate technological infrastructure and appropriate classroom supervision.

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INTRODUCTION

The transformation of information and communication technology in the 21st century has had a significant impact on various aspects of life, including the education sector. These changes have encouraged educational institutions to utilize digital technology as part of the learning and evaluation process. The use of technology in mathematics learning is one step towards providing a more engaging, interactive, and relevant learning experience, tailored to the characteristics of students in this digital age. Technology integration is no longer seen as a supplement to learning, but rather as a crucial requirement for improving the quality of education and student engagement in the learning process (Ardiansyah, 2022).

Mathematics learning at the junior high school (*SMP*) level is often considered difficult by students because much of the material is abstract and requires logical thinking skills. One of the basic materials that plays a crucial role in mathematics learning is integers. This material serves as the foundation for students to understand advanced mathematical concepts, such as algebra, equations, and other arithmetic operations. However, many students still struggle to understand integer operations, resulting in low mathematics learning outcomes. Furthermore, the conventional evaluation process tends to leave students feeling stressed and unmotivated when working on problems (Melissa et al., 2022; Musarwan, 2022).

Learning evaluation is a crucial element in the educational process because it plays a role in understanding students' mastery of the material and assessing the success of the teacher's learning process. Evaluation not only focuses on the result but also serves to improve the learning process and make it more efficient. Therefore, teachers need to provide innovative forms of evaluation that can increase student interest in learning (Aditiyawarman et al., 2022). According to Hamidah et al., (2024), utilizing digital media in learning evaluation can be an alternative to creating a more enjoyable, interactive, and less monotonous evaluation atmosphere. In learning evaluation, the use of digital media is very effective in creating an engaging and enjoyable learning environment.

Quizizz is one digital learning medium that can be used as an evaluation tool. This platform provides various game-based features, such as leaderboards, avatars, music, and a point system, which can create a more engaging learning environment. Using *Quizizz* can help students feel more relaxed during the evaluation because the process of working on the questions is presented in an educational game. The direct feedback feature allows students to quickly determine whether answers are correct or incorrect, thereby helping to improve their understanding of mathematical concepts (Setiyani et al., 2020).

The use of *Quizizz* in mathematics learning also offers benefits for teachers. Teachers can create questions practically, monitor student work directly, and automatically receive evaluation reports. This makes the evaluation process more efficient than conventional paper-based methods. However, the implementation of digital-based evaluation media still faces several challenges in the field. Issues such as limited internet connection, data quota, and the capabilities of students' devices are factors that can affect the smoothness of the digital evaluation process. Furthermore, the use of smartphones during evaluations also requires teacher supervision to ensure students remain focused on the questions and do not use the devices to access other answer sources. Therefore, the implementation of *Quizizz* in learning requires a more in-depth study to identify the advantages and obstacles that arise during the evaluation process (Kristiani et al., 2022).

Based on initial observations at *SMP Negeri* 5 Babelan, mathematics learning evaluation is still dominated by paper-based written tests. This evaluation process causes some students to feel bored and less enthusiastic about working on math problems. Furthermore, most students already own smartphones, which they use more for entertainment than as learning tools. This situation creates a gap between the availability of technology and its utilization in academic activities. Therefore, changes in evaluation media are needed to utilize students' digital devices in a more positive and educational way.

Numerous studies have been conducted on the use of *Quizizz* in learning. However, some previous studies have focused solely on students' cognitive aspects or learning motivation (Sudianto,

, & Nurfazriyah, 2025). Research specifically addressing the implementation of *Quizizz* for integers in suburban schools is still relatively limited. The novelty of this study lies in its focus on the implementation process of *Quizizz* as a mathematics evaluation tool, student responses to the platform's use, and the technical and non-technical challenges encountered during digital evaluation at *SMP Negeri* 5 Babelan

Quizizz has been widely used in educational settings; however, previous studies have predominantly focused on its effects on learning outcomes, motivation, and student engagement. Limited research has explored the use of *Quizizz* as a mathematics evaluation tool in junior high school contexts, particularly for learning integer operations (Noviyanti, & Noviyanti, 2025). Therefore, this study contributes to the existing literature by examining the implementation of Quizizz, students' responses to its use, and the technical and non-technical challenges encountered during digital evaluation activities at *SMP Negeri* 5 Babelan. The findings are expected to provide empirical insights into the use of digital evaluation tools in mathematics learning and serve as a reference for educators seeking to implement technology-based assessment practices in similar educational contexts (Supriyatin, 2024).

Based on this background, this study aims to describe the use of Quizizz as an evaluation tool for integer topics in mathematics learning, explore students' responses to its use, and identify the challenges encountered during the implementation of digital-based evaluation in Grade VII at *SMP Negeri* 5 Babelan.

METHOD

This study employed a qualitative descriptive approach to investigate the implementation of *Quizizz* as a digital evaluation medium in mathematics learning. The study aimed to explore the evaluation process, students' responses to the use of *Quizizz*, and the challenges encountered during its implementation. A qualitative descriptive approach was considered appropriate because it enables researchers to gain an in-depth understanding of participants' experiences and perspectives within their natural educational setting (Sugiyono, 2022). The research procedure consisted of four stages: preliminary observation, preparation of research instruments, implementation of *Quizizz*-based evaluation and data collection, and qualitative data analysis leading to conclusion drawing (following Figure 1.) (Ningsih & Alfaqi, 2025).

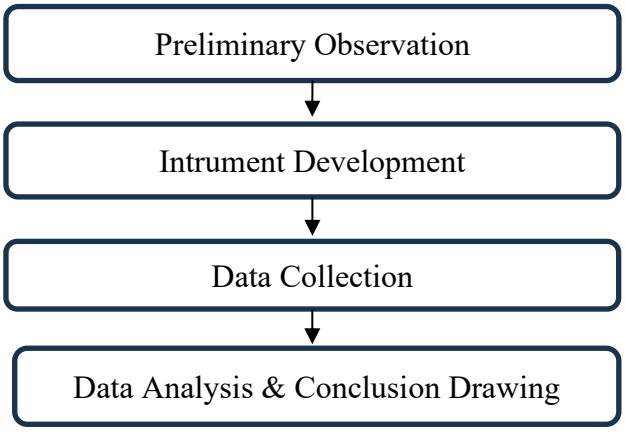

Figure 1. Research Flow of the Study

The study was conducted at *SMP Negeri* 5 Babelan, Bekasi Regency, during the even semester of the 2025/2026 academic year. The study subjects consisted of two seventh-grade mathematics teachers and 33 seventh-grade students who were directly involved in the evaluation using the *Quizizz* platform. Subject selection was purposive, considering the participants' involvement in the use of digital evaluation media in mathematics learning (Sugiyono, 2022).

The research design began with an initial observation phase to determine the conditions of mathematics learning and the implementation of evaluation at the school. Observation was conducted

to examine participants' experiences and behaviors within the classroom context while considering their perspectives in the interpretation of observational data (Prough, 2022).

Next, the researchers developed research instruments in the form of interview guidelines, observation sheets, and student response questionnaires. After the instruments were prepared, the teachers conducted an evaluation of the integer material using *Quizizz* through Live Game mode. During the implementation phase, students accessed the quiz using their respective digital devices using a game code provided by the teachers. Researchers observed student activities during the evaluation process and documented the learning activities (Sailer et al., 2022).

The research instruments used included teacher interview guidelines, student interview guidelines, learning activity observation sheets, student response questionnaires, and documentation of digital evaluation results from the *Quizizz* platform (represented in Table 1.). The interview guidelines were used to obtain information about teacher and student experiences using *Quizizz*. The observation sheets were used to record student engagement, classroom conditions, and any obstacles encountered during the evaluation (Hamari et al., 2021). The student response questionnaire was used to determine students' perceptions of using *Quizizz* as a tool for evaluating mathematics learning. Documentation in the form of screenshots, activity photos, and quiz results reports served as supporting data for the research (Koivisto & Hamari, 2021).

Table 1. Data Collection Method Matrix

No	Observed Aspects	Indicator	Data Collection Technique	Instrument
1	*Quizizz* Implementation	Implementation of digital evaluation and use of *Quizizz* features	Observation and interviews	Observation sheet and interview guide
2	Student response	Student interest, motivation, and engagement	Questionnaires and interviews	Student response questionnaire
3	Usage constraints	Technical and non-technical barriers	Interviews and documentation	Interview and documentation guidelines

Information was collected through observation, interviews, questionnaires, and documentation. Observations were conducted while students were participating in a *Quizizz*-based evaluation in class. Interviews were conducted directly with teachers and several students to obtain more in-depth information about their experiences using digital evaluation media. Questionnaires were administered to all students after the evaluation activities were completed. Documentation was conducted by collecting activity photos, quiz reports, and other supporting data related to the research (Toda et al., 2023).

The collected data was analyzed using a qualitative descriptive analysis approach through three steps: data reduction, data presentation, and conclusion drawing. In the data reduction step, the researcher selected and grouped information according to the research focus. The data presentation process was carried out in narrative and tabular formats to facilitate reader understanding (Rahayu, 2022). Conclusions were then drawn by analyzing the research results based on existing findings. To ensure data authenticity, the researcher applied triangulation techniques by comparing the results of observations, interviews, questionnaires, and documentation to ensure the resulting data was more valid and reliable (Supriyatin, 2024).

RESULTS

This research was conducted in grade VII of *SMP Negeri* 5 Babelan, involving 33 students and two mathematics teachers. Data were obtained through observation, interviews, student response questionnaires, and documentation during the implementation of the learning evaluation using *Quizizz* on integers. The research results were compiled based on the research focus, namely the

implementation of *Quizizz* use, student responses to its use, and obstacles encountered during the digital-based evaluation (Ardiansyah, 2022).

Implementing Quizizz as a learning evaluation tool

The mathematics learning evaluation using *Quizizz* was conducted after the teacher presented the integer material to the students. The teacher first prepared digital questions through the *Quizizz* platform, utilizing the Live Game feature. The questions consisted of multiple-choice questions with varying levels of difficulty, ranging from easy to moderate, to questions requiring higher-order thinking skills. During the implementation phase, the teacher distributed the game code to students for access through their respective devices. All students participated in the evaluation simultaneously in class. During the evaluation process, a leaderboard and student scores were projected via a projector, creating a competitive and interactive learning environment (Devinra at al.,2024).

Observations showed that most students appeared more active and enthusiastic than during conventional paper-based evaluations. Students appeared focused on the questions and strived to achieve the highest scores. Teachers also found it easier to monitor student performance directly because the *Quizizz* system automatically displays evaluation results. According to previous research conducted by Septia Isma Gunarti et al., (2022), the use of *Quizizz* as a learning evaluation tool is considered effective because it can improve students' learning outcomes and understanding of the material.

Table 2. Stages of *Quizizz* Implementation in Learning Evaluation

Stages	Teacher and Student Activities	Information
Preparation	Teachers arrange questions and create digital quizzes	Questions are adapted to the material on integers
Implementation	Students access the quiz code and work on the questions.	Using Live Game mode
Monitoring	Teachers monitor students' results and activities	Results appear in real-time
Evaluation	The teacher looks at the quiz results report	Automatically saved values in the system

Based on the interviews, teachers stated that the use of *Quizizz* made the evaluation process more practical and efficient. Teachers no longer needed to spend time manually correcting students' answers because the system automatically calculated scores and compiled evaluation reports. In addition, the use of *Quizizz* can create a new learning atmosphere. Hence, teachers can more effectively address problems related to students who are less attentive during the learning process (Hiesan, & Qotrunada, 2025).

Student responses to the use of Quizizz

Student response data was obtained through interviews and questionnaires after the evaluation activities were completed. The results showed that most students responded positively to the use of *Quizizz* in mathematics learning. Students reported that the *Quizizz* evaluations were more engaging due to the music, varied color displays, avatars, and ranking system. Several students also stated that using smartphones during the evaluations made the learning environment more enjoyable than using traditional worksheets (Diche,2022).

Furthermore, the live scoring feature challenged students to achieve their best results. This increased student motivation and allowed them to focus more on the problems. Based on the questionnaire results, most students agreed that *Quizizz* helped them be more enthusiastic about participating in the mathematics learning evaluations. According to previous research conducted by Zainuddin et al. (2020), in the use of *Quizizz*, students feel more enthusiastic in carrying out evaluations because of its features that attract students' attention; moreover, the presence of a leaderboard that shows students' performance results makes students more motivated to achieve high

evaluation results.

Table 3. Percentage of Student Responses to the Use of Quizizz

No	Response Aspect	Percentage	Category
1	Increase enthusiasm for learning	91%	Very positive
2	Attractive and interactive display	88%	Positive
3	Make it easier to understand the questions	82%	Positive
4	Want to reuse	97%	Very positive

Interview results showed that students felt less nervous when taking the *Quizizz* assessment. They viewed the assessment as a game, making them more comfortable working on math problems. This situation made the class more active and enjoyable. The research conducted stated that the use of *Quizizz* learning media in the mathematics learning process can help and increase students' learning motivation, which ultimately makes students more focused and enthusiastic in learning, so that students' learning outcomes can improve (Zainuddin et al., 2020).

Obstacles in using Quizizz

Although using *Quizizz* offers many benefits in the learning evaluation process, this study also identified obstacles during implementation. The main obstacles identified were related to internet connection and the readiness of students' digital devices. Some students experienced signal interference, which hampered the process of completing the questions. Furthermore, some students had limited internet quotas, preventing them from fully participating in the evaluation. Researchers also found differences in the capabilities of the devices used by students, particularly on smartphones with low specifications, which experienced delays in loading questions.

The obstacle in implementing *Quizizz* is the internet quota, as the network is often unstable, making it difficult to access. Therefore, it is necessary to find another way to access it, which is by using Wi-Fi (Bicen & Kocakoyun, 2021).As for Solikah (2020), she also stated that some of the students' dissatisfaction with using the *Quizizz* media included the system experiencing problems because it depended on an unstable internet connection, which affected the students' scores and speed in answering quizzes.

In addition to technical challenges, teachers also reported difficulties in maintaining students' academic integrity during the evaluation process. Some students were observed to have the potential to open other applications or search for answers on the internet while completing the *Quizizz* assessment, particularly when teacher supervision was limited. This situation may reduce the accuracy of the evaluation results, as students' scores may not fully reflect their actual understanding of integer concepts. Therefore, effective classroom supervision and the establishment of clear assessment rules are essential to ensure that digital-based evaluations remain valid, objective, and reliable (Domínguez et al., 2013)

Table 4. Obstacles in Implementing Evaluation Using Quizizz

Types of Constraints	Found in the Field	Impact
Internet Network	Unstable signal	The work on the questions is hampered
Data quota	Limited student quota	Not all students are optimal
Digital devices	Smartphones don't support it	Quiz access is slow
Supervision	Students open another application	Reduces the accuracy of results

Based on direct classroom observations and the data presented in Table 2., Table 3., and Table 4, the use of *Quizizz* created a more dynamic evaluation atmosphere than traditional paper-and-pencil

examinations. Throughout the execution phase, virtually all 33 seventh-grade participants immersed themselves in the *Quizizz* Live Game session, displaying heightened concentration from start to finish. According to the survey metrics, an overwhelming 91% of the learners felt that the software sparked their interest in mathematics evaluations, while 88% viewed the interface as visually compelling and highly interactive. Furthermore, 82% noted that the platform made the test items easier to understand, and a striking 97% expressed a strong desire to utilize this tool in subsequent academic modules. These percentages clearly demonstrate that the ludic components built into *Quizizz*, such as competitive leaderboards, personalized avatars, background audio, and instant performance metrics, successfully amplified student drive and hands-on involvement during math testing (Rohmani et al., 2025).

Qualitative feedback gathered from interviews strongly corroborates these quantitative trends. The mathematics instructors highlighted that the instant grading and data analytics features significantly curtailed the administrative burden of marking, allowing them to pinpoint student errors regarding integer operations much faster. From the learners' perspective, many commented that their test anxiety dropped significantly because the experience felt more like an instructional game than a rigid, formal exam. Even so, the rollout did uncover several logistical bottlenecks. As detailed in Table 4, spotty network connections, restricted data allowances, discrepancies in phone hardware, and the temptation for students to minimize the quiz to browse other software surfaced as notable obstacles. Yet, while these technical hits occasionally disrupted the flow of the session, observational records indicated that they failed to dampen the students' overall excitement or drive. Ultimately, these outcomes prove that the viability of a *Quizizz*-driven evaluation relies on a combination of software utility, robust network frameworks, and active classroom monitoring, which directly answers the primary research question regarding the positive and negative dimensions of digital mathematics assessments (Utakrit et al., 2025).

DISCUSSION

The outcomes of this investigation reveal that using *Quizizz* as an evaluative tool in mathematics classrooms yielded a highly favorable shift in learner involvement. Survey responses indicated that a substantial 91% of participants experienced a surge in excitement during math evaluations, with 88% characterizing *Quizizz* as an appealing and highly interactive assessment vehicle. In addition, 82% of the cohort noted that the platform clarified the exam questions, and a striking 97% communicated a strong inclination to use the software in upcoming academic modules. These metrics were heavily reinforced by direct classroom observations, which showed that the pupils were significantly more dynamic, concentrated, and driven during *Quizizz* sessions than during traditional pen-and-paper exams. The integration of competitive elements, namely, live scoreboards, digital avatars, background scores, and immediate grading, cultivated a spirited yet stress-free milieu that sustained student focus throughout the testing period. Consequently, these insights align with the assertions who posited that blending digital applications into mathematics education can amplify student involvement and optimize the pedagogical process. Similarly, this reinforces the perspective that maintained that dynamic educational spaces catalyze active involvement and solidify the rapport between educators and learners (Hamari et al., 2020).

Aside from boosting student concentration, the data also points to a noticeable improvement in teaching efficiency during classroom evaluations. Qualitative feedback from interviews made it clear that instructors found the instant marking and data reporting functionalities exceptionally useful. These utilities truncated the administrative hours usually spent on manual grading and allowed for the immediate diagnosis of conceptual errors regarding integer arithmetic. This implies that computerized assessments do more than just upgrade the student experience; they actively refine the speed and accuracy of instructional choices. In stark contrast to conventional paper exams, *Quizizz* equipped instructors with immediate learning analytics, enabling them to offer instant remediation and tailor subsequent lesson plans on the spot. These observations corroborate the research of Azzahro and Subekti (2022), who observed that digitized testing workflows minimize administrative

overhead while simultaneously re-energizing students and dismantling classroom monotony.

CONCLUSION

This study concludes that the implementation of *Quizizz* as a digital evaluation medium positively supports the mathematics evaluation process on integer material for seventh-grade students at *SMP Negeri* 5 Babelan. The integration of gamification features, such as leaderboards, avatars, music, and real-time feedback, created a more interactive and engaging evaluation environment than conventional paper-based assessments. This finding is supported by questionnaire, observation, and interview data, which revealed that 91% of students experienced increased enthusiasm for mathematics evaluation, 88% perceived *Quizizz* as an attractive and interactive evaluation medium, 82% reported that it facilitated their understanding of the assessment questions, and 97% expressed their willingness to use the platform again. Furthermore, teachers reported that the automatic scoring and reporting features simplified the evaluation process, enabled faster identification of students' misconceptions in integer operations, and improved the efficiency of classroom assessment.

Despite these positive findings, the implementation of *Quizizz* remains dependent on several supporting factors, including stable internet connectivity, adequate digital devices, and effective teacher supervision during online assessment. The presence of technical and non-technical challenges indicates that the success of digital-based evaluation is determined not only by the quality of the platform but also by the readiness of technological infrastructure and classroom management. Therefore, this study contributes empirical evidence that *Quizizz* can serve as an effective alternative for digital mathematics evaluation by simultaneously enhancing student engagement and improving teachers' assessment practices. These findings provide practical implications for schools and mathematics teachers in implementing technology-based evaluation and offer a reference for future studies investigating the effectiveness of digital assessment media across broader educational contexts and different mathematics topics.

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