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Implementation of LMS-Based Interactive Media for Islamic Religious Education Evaluation in Grade VII at SMP Negeri 1 Barebbo

Implementasi Media Interaktif Berbasis LMS untuk Evaluasi Pendidikan Agama Islam di Kelas VII SMP Negeri 1 Barebbo

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Abstract
This study describes the implementation of interactive learning media based on a Learning Management System (LMS) for evaluating Islamic Religious Education (PAI) in Grade VII at SMP Negeri 1 Barebbo, the types of evaluation applied, and the obstacles faced by the teacher and students. Using a descriptive qualitative design, the study collected data from 11 May to 11 June 2026 through non-participant observation, semi-structured interviews with one PAI teacher and four Grade VII.4 students, and documentation. The data were analysed through collection, reduction, display, and conclusion drawing, and were checked through source and technique triangulation. The teacher used Quizizz integrated with Google Classroom through planning, implementation, and use of results, and both the teacher and the students responded positively. Formative and summative evaluations were both administered and differed in purpose rather than in procedure. The main obstacles were an unstable internet connection and students' distraction by other phone applications, which the teacher addressed through assistance, hotspot provision, and supervision. The findings imply that the teacher's role remains decisive in digital evaluation and that schools need to strengthen network facilities. The study is limited to one school, one class, and one teacher, and it did not analyse students' scores.

Keywords: *Google Classroom; Islamic Religious Education; Learning Evaluation; Learning Management System; Quizizz*

Abstrak
Penelitian ini mendeskripsikan penerapan media pembelajaran interaktif berbasis Learning Management System (LMS) untuk evaluasi pembelajaran Pendidikan Agama Islam (PAI) di kelas VII SMP Negeri 1 Barebbo, jenis evaluasi yang diterapkan, serta kendala yang dihadapi guru dan siswa. Dengan desain kualitatif deskriptif, data dikumpulkan pada 11 Mei sampai 11 Juni 2026 melalui observasi non-partisipan, wawancara semi-terstruktur terhadap satu guru PAI dan empat siswa kelas VII.4, serta dokumentasi. Data dianalisis melalui pengumpulan, reduksi, penyajian data, dan penarikan kesimpulan, serta diperiksa dengan triangulasi sumber dan teknik. Guru menggunakan Quizizz yang terintegrasi dengan Google Classroom melalui perencanaan, pelaksanaan, dan pemanfaatan hasil, dan guru serta siswa merespons secara positif. Evaluasi formatif dan sumatif sama-sama diterapkan dan dibedakan oleh tujuannya, bukan prosedurnya. Kendala utama berupa jaringan internet yang kurang stabil dan siswa yang terganggu aplikasi lain pada telepon genggam, yang diatasi guru melalui pendampingan,

pemberian hotspot, dan pengawasan. Temuan ini menunjukkan bahwa peran guru tetap menentukan dalam evaluasi digital dan bahwa sekolah perlu memperkuat fasilitas jaringan. Penelitian ini terbatas pada satu sekolah, satu kelas, dan satu guru, serta tidak menganalisis nilai siswa.

Kata kunci: *Evaluasi Pembelajaran; Google Classroom; Learning Management System; Pendidikan Agama Islam; Quizizz*

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Introduction

The development of information technology has changed how learning and evaluation are designed. Using information and communication technology in teaching and learning is regarded as improving the quality, efficiency, and effectiveness of learning (Salsabila & Agustian, 2021). Such technology makes material delivery and assessment interactive, flexible, and accessible at any time, so that learning evaluation can be carried out more comprehensively than with conventional methods.

One platform that can support digital learning and evaluation is the Learning Management System (LMS). An LMS is an application used to manage online learning, including the placement and management of materials and the assessment of learning (Fitriani, 2020). Assessment features in an LMS, such as online quizzes, integrated assignments, and tracking of learning results, can help teachers conduct evaluation systematically and efficiently (Febrianti et al., 2022). In practice, interactive platforms such as Quizizz, integrated with Google Classroom, are widely used for evaluation because they provide real-time feedback and increase student engagement through gamification features (Rahmania et al., 2023). A meta-analysis also reports that gamification has positive effects on cognitive, motivational, and behavioural learning outcomes (Sailer & Homner, 2020).

In Islamic Religious Education (PAI), evaluation matters because PAI aims to strengthen students' faith, understanding, and practice of Islam so that they become Muslims who are faithful, devout, and of good character (Permana & Fadriati, 2023). Learning evaluation itself aims to find out how far students have reached the learning objectives and to give teachers and students feedback that can be used to adjust teaching and learning (Black & Wiliam, 1998; Sadler, 1989). The use of interactive media for PAI evaluation, especially at the junior high school level, is therefore worth examining.

Preliminary data show that this study is needed. A pre-observation at SMP Negeri 1 Barebbo showed that the PAI teacher was aware of the importance of

technology-based media in learning evaluation and used an LMS, including Quizizz integrated through Google Classroom, to design and conduct evaluation. However, how the evaluation is carried out, which types of evaluation are used, how students engage and respond, and what obstacles the teacher and students face have not been mapped. These are the very aspects that determine whether LMS-based evaluation works as intended.

Previous studies have examined LMS and evaluation with different foci. Saputra (2022) discussed PAI learning evaluation strategies in junior high schools, and Rahmania et al. (2023) examined the use of Quizizz gamification for learning motivation in PAI. Regita et al. (2024) studied the application of PAI and Arabic evaluation through an LMS at SMA Muhammadiyah Al-Kautsar PK Kartasura, and Ulfitriyah et al. (2024) studied the implementation of PAI learning with the Moodle LMS at SMP Al-Fath Cirendeu using a descriptive qualitative approach covering planning, implementation, and evaluation. More recently, Lubis et al. (2026) studied the implementation of Qur'an–Hadith learning evaluation based on an LMS at MTs Al-Muttaqin.

These studies differ from the present one in educational level, subject, type of LMS, or scope. Regita et al. (2024) worked in a senior high school and covered two subjects, while Ulfitriyah et al. (2024) treated the LMS as a medium for PAI learning in general rather than for evaluation specifically. Among the studies mapped here, none was found that examines the use of LMS-based interactive media (Google Classroom integrated with Quizizz) for PAI evaluation in Grade VII of junior high school while also reviewing the stages of implementation, the types of evaluation, students' responses, and the obstacles.

Accordingly, this study addresses a gap that earlier work has left open: how LMS-based interactive media are used for PAI evaluation in Grade VII of junior high school, how the evaluation unfolds in stages, how students respond, and what obstacles arise have not been mapped. Its novelty lies in focusing on PAI evaluation in Grade VII of junior high school through the combination of Google Classroom and Quizizz, with a review that includes students' responses and the obstacles to implementation. The study aims to describe the implementation of LMS-based interactive learning media for PAI evaluation in Grade VII at SMP Negeri 1 Barebbo, to describe the types of evaluation applied, and to identify the obstacles faced by the teacher and students. As a descriptive qualitative study, it does not test hypotheses. The results are expected to serve as a

reference for developing digital PAI evaluation media and as input for teachers and schools in making decisions about educational technology facilities.

Method

This study used a qualitative approach with a descriptive design to understand, in depth and in its natural context, how an LMS is used for evaluation. The approach was pedagogical because the object of study lies in education, namely PAI learning, with attention to the teacher's strategies in designing, organising, and conducting evaluation.

The study was carried out at SMP Negeri 1 Barebbo, Barebbo District, Bone Regency, South Sulawesi, from 11 May to 11 June 2026. It focused on the use of LMS-based interactive media (Google Classroom and Quizizz) for PAI evaluation in Grade VII.4, the types of evaluation used, the responses of the teacher and the students, and the obstacles faced. The informants were one PAI teacher (code G), as the main source, and four Grade VII.4 students (codes S1–S4), as supporting sources on responses and experience with the LMS. The informants' identities are masked with these codes.

Primary data were collected through non-participant observation, semi-structured interviews, and documentation. In the observation, the researcher acted only as an observer without taking part in the evaluation, and recorded classroom conditions, teacher–student interaction, use of LMS features, and student responses in field notes. Semi-structured interviews (Kallio et al., 2016) were chosen so that informants could explain their reasons, processes, and experiences freely while the questions stayed on course. Documentation consisted of screenshots of Google Classroom showing the Quizizz link shared by the teacher. The instruments were an observation guide with 10 indicators on the implementation and obstacles of LMS use, and an interview guide derived from the dimensions of planning, implementation, response, obstacles, and efforts to overcome them.

Data validity was tested through source triangulation, which compared data from the teacher and the students, and technique triangulation, which compared interview data with the observation of the evaluation held on 23 May 2026, supplemented by documentation (Carter et al., 2014; Susanto & Jailani, 2023). Data analysis followed four steps: data collection, data reduction, data display, and conclusion drawing or verification (Rijali, 2018). Reduction was done by summarising and selecting data relevant to the research focus and then grouping them by theme and

pattern. The data are presented as narrative description, interview excerpts, and summary tables. The author translated the interview excerpts from Indonesian.

Results and Discussion

Implementation of LMS-Based Interactive Media for PAI Evaluation

Interview, observation, and documentation data show that PAI evaluation based on an LMS in Grade VII.4 proceeded through three elements: the teacher's planning, the conduct of the evaluation, and the responses of the teacher and the students to using the LMS. The PAI teacher planned on the basis of the learning objectives. She determined the material to be evaluated according to what had been studied, wrote items based on learning indicators "so as to measure students' understanding accurately", uploaded the items to Quizizz via Google Classroom, and then set the schedule, time limit, and scoring system. Before use, she rechecked the content of the items, the time limit, and other settings (G). Students confirmed this: "Before the evaluation, [the teacher] had already prepared the questions in Quizizz and shared the link through Google Classroom" (S1, S2). The teacher also made sure that all students brought a phone and could access Google Classroom and Quizizz, and she gave instructions on using them. Students prepared their phones before the evaluation began (S2) and said that the teacher's instructions made things easier (S3). One student admitted being confused at first but became more confident after receiving an explanation (S4).

The teacher shared the Quizizz link through Google Classroom on schedule, explained how to access it, made sure students were ready, supervised the work, helped students with problems, and, after the time ended, reviewed the results in Quizizz to learn students' achievement (G). The observation on 23 May 2026 confirmed this sequence: the teacher shared the link through Google Classroom, gave directions, and supervised, while all students opened Quizizz and answered the items within the set time. The Google Classroom screenshots obtained as documentation also show the teacher sharing the Quizizz link with students. These stages are summarised in Table 1 and Figure 1.

Table 1 Stages of LMS-Based PAI Evaluation and Their Data Sources

Stage	Main finding	Data source
Planning	The teacher determines the material, writes items based on indicators, uploads them to Quizizz, sets the schedule, time limit, and scoring system, and rechecks the settings	Interviews G, S1–S3
Teacher and student readiness	The teacher makes sure students bring phones and can access Google Classroom; students prepare their phones and understand the instructions	Interviews G, S1–S4
Access to the evaluation	The Quizizz link is shared through Google Classroom on schedule; evaluation information is available in one place	Interviews G, S1–S4; observation; documentation
Working on the items	Students answer the items independently within the set time	Interviews G, S3, S4; observation
Supervision and assistance	The teacher supervises and helps students who have difficulty accessing Quizizz	Interviews G, S1, S4; observation
Reviewing results	The teacher reviews the results in Quizizz to learn students' achievement	Interview G; observation

Note. G = PAI teacher; S1–S4 = Grade VII.4 students. Source: research data (2026).

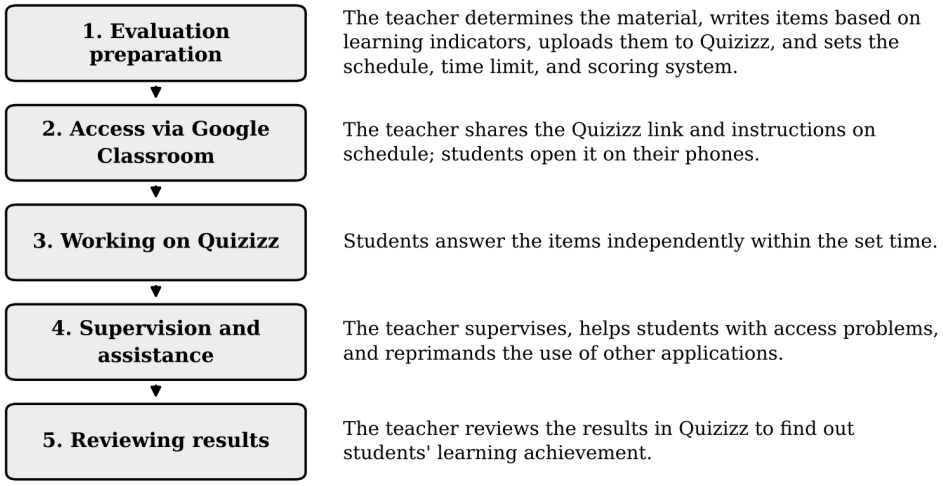
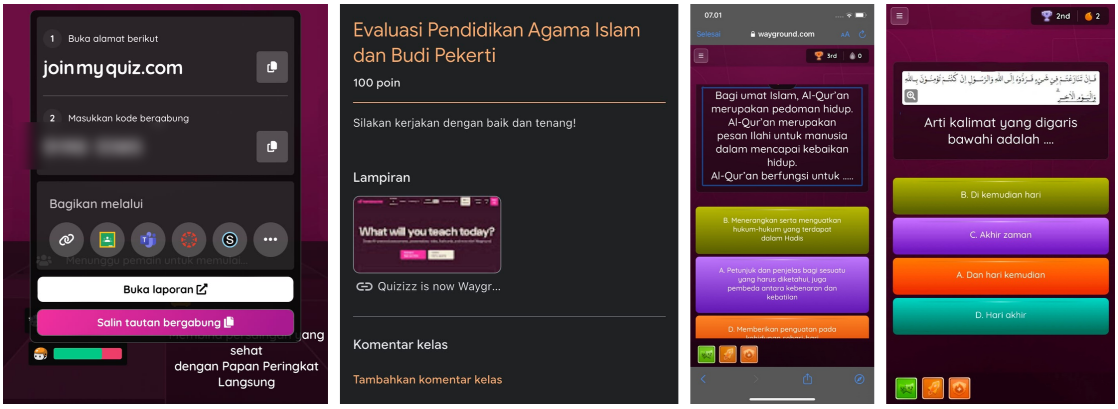


Figure 1. Flow of LMS-based PAI evaluation in Grade VII.4

Figure 2 documents the Quizizz join link (a), the assignment "Evaluasi Pendidikan Agama Islam dan Budi Pekerti" (PAI and Character Education Evaluation) in Google Classroom with the Quizizz link attached (b), and the multiple-choice items as displayed on students' phones, including an item with Qur'anic text and indicators of rank and points on the screen (c, d).



(a) (b) (c) (d)

Figure 2. Documentation of the evaluation: (a) Quizizz join link, (b) assignment in Google Classroom, (c–d) Quizizz items on students' phones (original screenshots in Indonesian)

The teacher and the students alike said that Google Classroom made access easier because evaluation information was in one place. The teacher stated, "I no longer have to share the link with students one by one" (G). Students said something similar: "after entering the class [the teacher] created, I can immediately see the Quizizz link I have to open, so I don't have to search anymore" (S3). On participation, most students took part in the evaluation from start to finish (G, S3); one student briefly had trouble entering Quizizz but was helped by the teacher and could answer the items like the others (S4).

The teacher judged that evaluation became easier to manage, easier to monitor, and more orderly than manual evaluation, and she saw students growing used to using technology for learning (G). Students found the evaluation more interesting because "we don't just work on paper, but directly use a phone", which made them "more eager to follow the evaluation to the end" (S1). Another student said that it made her "more used to using the phone for learning, not just for playing or browsing social media" (S3). Both the teacher and the students said they needed time to adjust at first, but after several uses the evaluation ran more smoothly and was no longer confusing (G, S3, S4). Taken together, these data show an evaluation that was planned, orderly, and positively received. They are interpreted below in relation to the roles of the two platforms.

Types of Evaluation Applied

The teacher used Quizizz for both formative and summative evaluation. For formative evaluation, she explained, "after the material is finished I usually give a few questions or a quiz to see students' understanding. I use Quizizz so students can answer directly on their phones and I can also see the results" (G). For summative evaluation, students said that after the material was finished they were given items through Quizizz:

"The teacher gives the link, then we enter and answer the questions on our phones" (S1, S2). They described items that "match the material we have studied" and results that the teacher then viewed (S3, S4). The observation on 23 May 2026 showed the teacher using Quizizz as a medium for formative and summative evaluation, with the link shared through Google Classroom, work done on students' phones, teacher supervision, and review of results in Quizizz. The two types are compared in Table 2.

Table 2. Comparison of Formative and Summative Evaluation in LMS Use

Aspect	Formative evaluation	Summative evaluation
Timing	After the learning material has been delivered	After the learning material has been completed
Purpose	To find out students' understanding of the material studied	To find out students' achievement after the material is completed
Form	Questions or a quiz through Quizizz	Quizizz items matched to the material studied
Access and device	Quizizz link via Google Classroom; done on students' phones	Quizizz link via Google Classroom; done on students' phones
Use of results	The teacher views the results to learn students' understanding	The teacher views the results to learn students' learning achievement
Data source	Interview G; observation	Interviews S1–S4; observation

Note. Source: research data (2026).

Obstacles Faced by the Teacher and Students and Efforts to Overcome Them

Besides supporting the conduct of evaluation, LMS use faced two main obstacles. The first was an unstable internet connection. The teacher said that some students needed more time to enter Quizizz (G). Students experienced the same problem: Quizizz was "slow to open" (S1), access was "slow" (S2), and the chosen answer "took a long time to process so I was worried it was not saved" (S3). The second was loss of focus caused by phone use. The teacher said that some students occasionally opened other applications, so she had to remind them (G), and one student admitted, "I once opened another application when a notification came in on my phone" (S4). The observation on 23 May 2026 found both problems: most students took part well, but some needed longer to access Quizizz and some occasionally opened other applications and were reprimanded by the teacher.

The teacher dealt with the connection problem by asking students to try accessing again, providing a hotspot if the connection remained unstable, and assisting students until the evaluation could be opened (G, S1). For phone use, she supervised during the evaluation and immediately reprimanded students who opened applications other than

Google Classroom and Quizizz (G, S2). The obstacles and efforts are summarised in Table 3.

Table 3. Obstacles to LMS Use and the Teacher's Efforts

Obstacle	Finding	Teacher's effort
Unstable internet connection	Slower access to Quizizz, loading of items, and sending of answers; students worry their answers are not saved (G, S1–S3; observation)	Asking students to try again, allowing time, providing a hotspot, and assisting until the evaluation can be opened
Loss of focus caused by phone use	Students occasionally open other applications or are distracted by notifications (G, S4; observation)	Supervising during the evaluation, reprimanding, and directing students back to Quizizz

Note. Source: research data (2026).

The Complementary Roles of Google Classroom and Quizizz in Planned Evaluation

The fact that evaluation proceeded through five sequential stages (Figure 1) shows that the LMS in this study functioned as a working system for evaluation, not merely a place to upload items. The teacher's planning, which started from the learning objectives and indicators and continued with setting the schedule, time limit, and scoring system, is consistent with the function of an LMS as an application that supports the management of online learning (Fitriani, 2020), and with LMS assessment features that allow more systematic and efficient evaluation (Febrianti et al., 2022).

The division of roles between the two platforms is clear. Google Classroom served as the access point that centralised information and the evaluation link, and it is known to let teachers and students learn anytime and anywhere (Rahmawati et al., 2022), while Quizizz served as the space for answering items and displaying results. This division matches the benefit of Google Classroom in supporting evaluation through integration with other applications such as Quizizz (Rizkianti & Mustika, 2022). For the teacher, centralised information removed the need to share links one by one; for students, centralised access reduced confusion about where to find the schedule and link. This convenience matters when evaluation is done on students' phones, because Google Classroom is free, reachable by smartphone users, and relatively secure (Atikah et al., 2021). The teacher's role in structuring this arrangement is also consistent with the view that the pedagogical value of Google Classroom depends on how teachers design its use (Heggart & Yoo, 2018).

The interactive nature of the media shows in two ways. First, students interact directly with the evaluation material through digital devices, in line with the view of

interactive media as technology that lets users interact actively with learning material, including two-way interaction between teacher and students and between students and material (Kustanto et al., 2024; Munawir et al., 2024). Second, teacher–student interaction continues through directions, supervision, and assistance. Students' positive responses, in which they found the evaluation more interesting and felt more eager, are consistent with reports that Quizizz is designed with enjoyable features that raise students' motivation and interest (Jong & Tacoh, 2024; Nababan et al., 2023). However, the interviews do not specify which Quizizz features affected students' interest, although the documentation shows rank and point indicators on students' screens. Students more often linked their interest to the change of medium from paper to phone, so the effect of gamification cannot yet be established from these data.

Students' responses can be read through three aspects put forward by Lubis et al. (2026): ease of access to the LMS, involvement in the evaluation, and acceptance of the LMS as an evaluation medium. All three appear in the data: students found access easy because information was centralised, completed the evaluation, and accepted the LMS as a positive new experience. This is consistent with the technology acceptance view that perceived ease of use and perceived usefulness shape whether users accept a technology (Davis, 1989). An interesting finding is the pattern of adaptation. The teacher and the students alike said they had to adjust at first and then became used to it after several uses. This suggests that smooth LMS-based evaluation depends on habituation and assistance, not merely on the availability of a platform. The teacher's role did not disappear either. It shifted to managing access, supervising, and assisting, as seen in her help to students who could not enter Quizizz.

Compared with earlier studies, these findings add a picture of LMS-based PAI evaluation at the junior high level using the combination of Google Classroom and Quizizz. Ulfitriyah et al. (2024) studied the Moodle LMS in PAI learning in general and Regita et al. (2024) studied PAI and Arabic evaluation in a senior high school, whereas this study concentrates on PAI evaluation in Grade VII and examines student responses and interactivity. What the three studies share is that they treat the LMS as a means of conducting digital evaluation in schools.

Formative and Summative Evaluation: Different Purposes in the Same Flow

Formative evaluation is generally conducted during the learning process to track learning progress, give feedback, identify material not yet understood, and decide

follow-up (Yuni et al., 2025). Summative evaluation is conducted at the end of a learning period to determine overall learning achievement and serves as the basis for final results (Dianti et al., 2025). This study found that both were conducted through the same medium and flow. The difference lay mainly in how the results were used rather than in technical procedure: formative evaluation to learn students' understanding and summative evaluation to learn achievement once the material was completed. This pattern is consistent with the view that formative and summative assessment differ in purpose and that similar evidence can serve both (Harlen & James, 1997). A single platform with a uniform flow can make the teacher's work more efficient. Quizizz is also reported to provide quiz reports automatically, which helps teachers monitor students' progress (Jong & Tacoh, 2024).

Two critical notes are in order. First, in the interview data both types of evaluation were linked to "after the material", so the distinction between formative and summative is not fully sharp in timing and appears more in purpose. Second, the main function of formative evaluation, which is to provide a basis for follow-up in learning (Yuni et al., 2025), is shown in the data only to the extent that the teacher learns students' understanding from Quizizz results. Concrete follow-up, such as re-teaching material, was not revealed. Yet feedback is most useful when it informs what learners and teachers do next (Hattie & Timperley, 2007; Nicol & Macfarlane-Dick, 2006), and evaluation is also useful for improving the quality of learning and helping teachers make sound decisions (Black & Wiliam, 1998). How Quizizz results are used to improve learning therefore needs further investigation.

A third note concerns the nature of PAI. Islamic education aims not only to deliver knowledge but also to form faith and devotion (Permana & Fadriati, 2023), and moral education is described as the principal aim of Islamic education (Hamim et al., 2022). The Quizizz items in this study were reported to relate to the material already studied and to serve to measure understanding and achievement of that material. The data do not show how attitudes and character were evaluated through the LMS. The LMS-based evaluation studied here appears to act mainly as a measure of material achievement, which opens room for further study on assessing the attitudinal aspect of PAI.

Connectivity and Phone Use as Consequences of Evaluation on Students' Own Devices

The two main obstacles found, an unstable connection and loss of focus caused by phones, reflect two different sides of using an LMS: infrastructure and user behaviour. Dependence on a stable internet connection is a recognised challenge of online learning, together with limited access to digital devices, which can create inequality (Adedoyin & Soykan, 2023). The present findings confirm the connection side: access, loading of items, and sending of answers slowed down. Students' worry that their answers were not saved shows that connection problems also affect students' sense of security while answering. By contrast, limited devices did not appear in the reported data, because the teacher made sure all students brought a phone. In this class, then, the obstacles stemmed from connection quality, not from device availability.

The second obstacle is behavioural. Because the evaluation was done on students' phones, notifications and other applications sit on the same device as the items. The device that makes the evaluation feel interesting to students is also a source of distraction. One student's admission of opening another application when a notification came in (S4), and the teacher's reprimands, which another student also confirmed (S2), show that control rests on the teacher's supervision. The data do not show any technical setting on the platform to prevent this.

The teacher's efforts, which were asking students to try accessing again, allowing extra time, providing a hotspot, assisting, supervising, and reprimanding, were responsive and depended on the teacher's presence and initiative. Providing a hotspot shows that solving connection problems still relies on the teacher, so school support in providing network facilities becomes relevant. This finding can be input for the school in making decisions about educational technology facilities. Overall, smooth LMS-based PAI evaluation in the class studied rested on three things: careful planning by the teacher, a clear division of roles between Google Classroom and Quizizz, and the handling of connection problems and phone use during the evaluation.

Conclusion

The use of LMS-based interactive learning media for PAI evaluation in Grade VII.4 at SMP Negeri 1 Barebbo proceeded through planning, implementation, and use of results. Google Classroom served as the access and information channel, while Quizizz served as the medium for answering items and displaying results. The teacher and the students responded positively because the evaluation was easier to manage and

more interesting, although both needed an initial period of adjustment. Formative and summative evaluations were both applied, run through the same flow and distinguished by purpose, namely learning students' understanding and learning their achievement once the material was completed. The main obstacles were an unstable internet connection and loss of focus caused by phone use, which the teacher handled through assistance, hotspot provision, supervision, and reprimands.

Theoretically, the study offers a descriptive account of how Google Classroom and Quizizz divide roles in PAI evaluation at the junior high level. Its main findings are that the teacher's role remains decisive in digital evaluation, that the obstacles stemmed from connectivity and phone-use behaviour rather than device availability, and that the reported evaluation was more prominent in measuring achievement of the material. Practically, teachers are advised to keep developing their planning and management of LMS-based evaluation, and schools are advised to strengthen network facilities. The study has limitations: it was conducted in one school and one class, with one PAI teacher and four students, the reported observation covers a single date, and students' scores and learning outcomes were not analysed. The results are therefore not intended to be generalised. Future studies could trace the follow-up given to formative results and ways of assessing attitudes through an LMS and could involve more classes and schools.

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