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# FROM ASSESSMENT TO EMPOWERMENT: QUIZIZZ AS A CATALYST FOR DIGITAL LITERACY AND INDEPENDENT LEARNING IN PRIMARY CLASSROOMS

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**ABSTRACT**
The rapid advancement of information and communication technology (ICT) has transformed the landscape of education, offering new opportunities for digital and interactive learning. However, the integration of technology in learning assessment remains limited in many primary classrooms, creating a gap between pedagogical potential and actual practice. This study aims to explore how the implementation of Quizizz as a digital assessment tool can strengthen students' digital literacy and foster independent learning. Employing a descriptive qualitative approach, data were collected from three upper-grade teachers and five students selected through purposive sampling. The data were obtained via interviews, classroom observations, and document analysis, then validated through source triangulation. Data analysis followed Miles and Huberman's (1996) interactive model, consisting of data reduction, presentation, and conclusion drawing. The findings reveal that Quizizz enhances students' engagement, motivation, and participation through its gamified features, point system, and instant feedback. It promotes critical and reflective thinking, helping learners develop self-regulation and confidence in using digital tools for academic purposes. Despite challenges related to device availability and internet connectivity, both teachers and students perceive Quizizz as an effective, enjoyable, and empowering platform for learning evaluation. The study concludes that integrating Quizizz not only improves digital literacy and learner autonomy but also supports the development of adaptive and creative learners prepared for digital-era education.

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## INTRODUCTIONS

The rapid advancement of information and communication technology (ICT) has significantly transformed educational practices worldwide. The proliferation of new communication tools and systems has expanded access to knowledge, enabling learning to occur anytime and anywhere beyond the traditional classroom (Chaiyo & Nokham, 2017; Simbolon et al., 2019; Sherman et al., 2021). The integration of ICT into education has the potential to improve teaching quality and enhance overall learning outcomes when supported by adequate digital infrastructure and resources such as the internet and digital libraries (Zhao, 2019; Tejedor et al., 2020). As the educational system becomes increasingly technology-based, teachers are expected to adapt by continuously improving their pedagogical practices and technological competence to meet the learning needs of the digital generation (Albadri, 2022; Janković et al., 2024).

Technological innovation in education, however, presents both opportunities and challenges. As Lange (2019) observes, the dual impact of digital technology on teachers and learners can either enhance or hinder learning depending on how effectively it is implemented. One emerging response to this challenge is the emphasis on digital literacy defined as an individual's capacity to access, evaluate, and use digital information effectively and responsibly (Yates et al., 2021;Spires et al., 2020). Digital literacy extends beyond technical proficiency (Tokan and Imakulata, 2019); it encompasses critical thinking, ethical awareness, and the ability to engage meaningfully with information in personal, academic, and social contexts. Without this competency, students risk becoming passive consumers of online content rather than active, discerning participants in the digital world (Cirus and Simonova, 2021; Tulay, 2019). To strengthen digital literacy in schools, teachers must be able to integrate appropriate digital media and tools into learning. Junior (2020) emphasizes that the use of platforms such as Quizizz requires teachers to possess sufficient technological knowledge and creative skills to design engaging and effective learning activities. Similarly, Dhamayanti (2021) argues that the effectiveness of technology-based learning depends largely on teachers' readiness and competence in using digital tools (Seage et al., 2020; Schlenz et al., 2020). When utilized appropriately, tools like Quizizz not only facilitate assessment but also stimulate students' curiosity and motivation to learn independently (Buckingham, 2020; Spiteri and Chang, 2020).

Digital literacy development is closely intertwined with the cultivation of independent learning skills. According to Zhao (2019), digital empowerment through educational technology must be accompanied by the promotion of learner autonomy, allowing students to manage their learning processes and access educational resources without excessive dependence on teachers or parents. Students with a high degree of independence tend to demonstrate responsibility, initiative, and perseverance in achieving academic goals. Conversely, limited independence can impede digital learning engagement and the development of self-regulated learning strategies (Hsu et al., 2019;; Soedjiwo et al., 2025). The relationship between digital literacy, learner autonomy, and assessment practices has also been highlighted by Reddy et al. (2020), who noted that learning evaluation plays a crucial role in strengthening both competencies. Evaluation should not be confined to conventional testing but should be viewed as a formative process that provides continuous feedback and reflection. Angelini and Alvarez (2018) define educational evaluation as the process of assigning meaning and value to assessment outcomes in accordance with learning standards, while Cui (2022) stresses that effective evaluation depends on relevant, adaptive instruments that reflect real learning progress.

Despite the potential of digital tools, observations in several Indonesian primary schools reveal that the use of applications such as Quizizz in learning evaluation remains limited and largely conventional. In many cases, students possess smartphones but use them primarily for entertainment or social media rather than educational purposes. Kurniawan et al. (2019) found that mobile phone policies in elementary schools vary widely some prohibit phones entirely due to concerns about distraction, while others allow restricted use under supervision. Redirecting this access toward educational applications like Quizizz could make learning more creative, interactive, and meaningful (McBrien et al., 2020). Nevertheless, the successful adoption of such innovations depends heavily on teachers' digital competence, which still varies considerably across contexts (Degirmenci, 2021; Purwati, 2022; Suroyo and Putra, 2022). Recent studies further underscore the importance of embedding digital literacy into early education. Pangrazio, Godhe, and Ledesma

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(2020) observed that while many teachers worldwide have begun integrating digital media into instruction, effective implementation depends on contextual factors such as access, culture, and pedagogical orientation (Viegas et al., 2018). Similarly, Çetin (2021) demonstrated that digital storytelling activities significantly improve pre-service teachers' digital literacy levels, suggesting that creative digital tools can foster both technical and reflective capacities. In the context of primary education, Quizizz has been identified as a particularly promising medium due to its gamified structure and formative feedback system (Zulfa & Ratri, 2022; Priyanti, Santosa, & Dewi, 2019). However, access limitations and teachers' digital readiness remain persistent challenges (Suroyo et al., 2025).

Empirical evidence suggests that digital literacy and learner autonomy are mutually reinforcing. Students with strong digital literacy are more capable of engaging in self-directed learning, while autonomous learners are more likely to explore and apply digital resources effectively. These competencies are therefore essential for cultivating adaptive, creative, and lifelong learners capable of thriving in the digital era (Suroyo et al., 2023). Nevertheless, the integration of technology into assessment in many primary schools remains suboptimal, leaving a gap between technological potential and pedagogical reality. Based on this context, the present study focuses on exploring how Quizizz can be implemented as an innovative tool for learning evaluation to strengthen digital literacy and foster independent learning among primary students. By examining teachers' and students' experiences and perceptions, the study seeks to uncover how gamified assessment can serve as a catalyst for digital empowerment in early education. This research thus aims to contribute to the growing discourse on digital pedagogy by positioning Quizizz not merely as an assessment instrument, but as a transformative medium for developing literate, autonomous, and future-ready learners.

## METHOD

This study employed a qualitative descriptive design aimed at portraying how the Quizizz application was implemented in classroom assessment and how it contributed to strengthening students' digital literacy and independent learning. The approach was chosen to allow an in-depth exploration of teachers' and students' experiences in using Quizizz as an evaluative and learning tool. The study sought to describe real-life classroom practices and interpret their implications for digital literacy development and learner autonomy in primary education. The research was conducted at a public primary school located in Seberida District, Indragiri Hulu Regency, Riau Province, Indonesia, where Quizizz had been used in learning evaluation since the early pandemic period. The participants consisted of three upper-grade teachers (Grades IV–VI) and five students selected through purposive sampling. The teachers were chosen based on their experience using Quizizz in classroom assessment, while the students were selected to represent varying achievement levels, three high-achieving and two low-achieving learners who had previously participated in Quizizz-based evaluations.

Data were collected through interviews, classroom observations, and documentation. Semi-structured interviews were conducted with both teachers and students to explore their perceptions, experiences, and challenges in using Quizizz for learning assessment. Observations were carried out during Quizizz-based evaluation sessions to capture teaching practices and student engagement. Documentation included school profiles, photographs of the learning process, and related instructional materials. Interview guides, observation checklists, and documentation forms served as the primary instruments for data collection. Data analysis followed the interactive model proposed by Miles and Huberman (1996), which included four steps: data collection, data reduction, data display, and conclusion drawing. The credibility of the data was ensured through triangulation of sources—comparing information obtained from interviews, observations, and documents to verify consistency and accuracy. Ethical approval was obtained from the school administration, and all participants were informed about the research objectives and procedures. Participation was voluntary, and anonymity as well as confidentiality were strictly maintained throughout the study.

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## RESULTS AND DISCUSSION

***Implementation of Quizizz to Enhance Digital Literacy***

Interviews with teachers indicated a significant positive impact of Quizizz on students' learning engagement, motivation, and digital literacy. Teachers consistently noted that the gamified and competitive features such as points, rankings, and instant feedback transformed the learning atmosphere, making it more interactive and stimulating. Beyond motivation, Quizizz was perceived as a powerful tool for fostering independent learning. Its instant feedback feature enabled students to evaluate their understanding, identify errors, and review materials independently without constant teacher assistance. One teacher emphasized this transformative aspect:

"*I think Quizizz is such a fun tool for learning. The students become more enthusiastic because they can learn while playing. They also get used to searching for information independently, which is great for fostering self-reliance. Since everything is digital now, it's essential that they master various applications.*" (S1, I1, L11)

Teachers also reported that Quizizz played a substantial role in developing students' practical digital literacy skills. Students learned to navigate digital interfaces logging in, selecting game modes, and responding to various question types. Beyond technical familiarity, teachers observed that students became more capable of interpreting multimodal information and making quick decisions, both of which are foundational components of digital literacy. Another teacher added that Quizizz provided valuable data analytics that supported formative assessment and informed differentiated instruction:

> *"Quizizz really helps make learning more enjoyable. Students become more active and enthusiastic when doing the quizzes. The result data is very useful for me as a teacher because I can see individual and group progress. It helps me adjust my teaching methods more effectively*." (S1, I1, L19)

However, teachers also faced infrastructural challenges, primarily related to limited internet access and device availability. These technical issues occasionally disrupted learning activities but were seen as opportunities to strengthen school community partnerships in promoting digital learning equity. As another teacher stated:

> *"I'm very enthusiastic about using Quizizz in our school. I hope this application can help students become more independent learners studying at their own pace and receiving direct feedback. Besides, it makes learning more enjoyable and interactive*." (S1, I1, L29)

Overall, Quizizz was perceived as more than a digital assessment platform—it functioned as a pedagogical bridge between traditional learning and digital literacy development, encouraging both teachers and students to integrate technology meaningfully in education.

***The Role of Quizizz in Promoting Independent Learning***

Student interviews revealed widespread enthusiasm toward Quizizz, which they perceived as an engaging, game-like approach to learning. Students found the platform's interactive elements visuals, points, badges, and leaderboards motivating and enjoyable. Many reported that learning through Quizizz felt like playing a game with academic purpose. As one student noted:

> *"I want more pictures in Quizizz, Sir, so it's more interesting. Pictures help me understand the questions more easily*." (S1, I1, L8)

This shows that visual and gamified content helps students comprehend questions independently, reducing reliance on teacher explanations. Nevertheless, some students experienced technical difficulties, such as slow loading times and unstable internet connections:

> *"It's really hard sometimes, Sir! It gets so slow when I click the answers. The signal often cuts off, so my answers don't count.*" (S1, I1, L20)
>
> *"Quizizz is great, but sometimes it loads too slowly. Also, some of the questions are too easy."* (S1, I1, L32)

Despite these technical and contextual challenges, students consistently exhibited self-regulated learning behaviors, particularly in recognizing their own limitations and engaging in reflective practices regarding the quiz design

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and learning process. Several participants described how they adapted to the learning environment by independently using *Quizizz* outside classroom hours as a form of self-assessment and review:

*"Sometimes the signal's bad, Sir, so it gets slow. But it's still fun I can learn while playing*." (S2, I1, L29)

This response illustrates a metacognitive awareness of both external barriers (e.g., unstable internet connection) and internal motivation (e.g., finding enjoyment in the learning activity despite challenges). The student's statement also demonstrates adaptive persistence, as they continued engaging with the quiz platform for learning purposes rather than disengaging due to technical frustrations. Such persistence indicates that the gamified quiz design may have fostered intrinsic motivation and resilience, essential elements of self-regulated learning. Moreover, several students reported voluntarily re-accessing the *Quizizz* platform at home to monitor their progress and reinforce understanding of previously misunderstood concepts. This practice reflects the forethought and self-reflection phases of self-regulated learning, in which learners plan, monitor, and evaluate their own learning strategies. The participants' willingness to engage with digital tools autonomously suggests a shift toward learner agency, where students take ownership of their learning beyond teacher-directed tasks:

*"With Quizizz, I understand the lesson better because it's fun. And if I don't get it, I can ask the teacher directly*." (S2, I1, L35)

Such responses reflect an emerging sense of autonomous learning, where students actively seek clarification and regulate their learning pace. . Collectively, these findings underscore the potential of gamified learning environments not only to enhance student engagement but also to cultivate self-directed learning habits in contexts where access and infrastructure remain uneven. Even in the face of connectivity issues, students demonstrated that enjoyment, curiosity, and a sense of autonomy can sustain meaningful learning interactions through technology-enhanced platforms like *Quizizz* Students also appreciated the instant feedback mechanism, which allowed them to immediately review incorrect answers and understand mistakes. The leaderboard feature further promoted healthy competition and intrinsic motivation:

*"It's so much fun playing Quizizz with my friends, Sir. We race to get the highest score—it really makes me more motivated to study!"* (S3, I1, L16)

Minor external constraints, such as small mobile screens, were met with adaptive strategies rather than frustration:

*"My phone's small, so it's hard to see the questions. Sometimes I press the wrong button by mistake*." (S3, I1, L32)

Ethical and behavioral challenges also emerged, particularly concerning academic honesty:

*"Some friends cheat, Sir! They look at each other's answers, so it's not fair*." (S4, I1, L33)

Collectively, these findings demonstrate that Quizizz not only promotes engagement but also fosters reflection, responsibility, and autonomy key traits of lifelong learners in digital education contexts. This underscores the need to instill digital ethics alongside independent learning. Meanwhile, other students expressed intrinsic motivation for challenge and improvement, requesting more complex and varied questions.

***Teachers' and Students' Perceptions of Quizizz in Developing Digital Literacy and Learning Independence***

The triangulated data drawn from both teacher and student interviews confirm that the implementation of *Quizizz* has effectively transformed traditional classroom dynamics into an interactive and digitally enriched learning ecosystem. Teachers observed a notable shift in learner engagement, reporting that even typically passive students became more responsive and involved during the lessons. This transformation reflects how gamification can restructure classroom interactions from teacher-centered instruction to learner-centered participation, supported by technology-mediated collaboration and competition. Students' testimonies reinforced these observations, frequently describing their experiences with *Quizizz* as enjoyable, game-like, and intrinsically motivating:

*"Quizizz is super fun! I love learning with it because it feels like playing a game. The points and ranking make me excited to do better."* (S1, I1, L10)

*"Learning becomes like a game it's really fun! I love the points and the ranking*." (S2, I2, L12)

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*"It's fun competing with friends, Sir. We race for the highest score, and that makes me study harder*." (S3, I3, L15)

These excerpts illustrate how gamified elements—such as instant scoring, ranking systems, and competitive gameplay activate students' affective engagement and achievement-oriented motivation. The platform's playful design creates an environment where learning and enjoyment coexist, thereby reframing assessment from a source of anxiety into a motivational challenge. The emphasis on competition, progress, and immediate feedback aligns with self-determination theory, which posits that motivation increases when learners experience autonomy, competence, and relatedness. Moreover, the collective enjoyment expressed by students underscores the social dimension of gamified learning, in which competition among peers serves not merely as entertainment but as a constructive motivational driver. Rather than fostering unhealthy rivalry, the friendly competition appeared to encourage persistence, goal-setting, and peer-based encouragement, ultimately contributing to a positive classroom climate. In essence, the integration of *Quizizz* redefines assessment as an interactive, student-driven process, fostering engagement through playfulness and autonomy. The convergence of teacher and student perspectives indicates that gamification does more than increase participation it cultivates sustained motivation, collaborative spirit, and a sense of digital empowerment that collectively enhance the overall learning experience.

Teachers unanimously agreed that the gamified learning environment effectively stimulated students' participation and sustained their attention throughout classroom activities. The instant feedback mechanism embedded within *Quizizz* was perceived as particularly valuable, as it provided learners with immediate evaluative information about their performance. This feature encouraged self-assessment and reflective learning, enabling students to identify their areas of strength and weakness in real time. From the students' perspective, the auto-feedback system not only enhanced their understanding of learning outcomes but also served as a motivational catalyst. As one participant shared:

*"I love using Quizizz because I can see my score right away it makes me excited to study more!"* (S1, I1, L18)

This statement reflects a positive emotional response to the immediacy of feedback, suggesting that real-time performance visibility contributes to students' sense of achievement and fosters intrinsic motivation to continue learning. The gamified format thus transforms traditional assessment from a summative event into a continuous learning experience, reinforcing engagement through reward-based and progress-tracking mechanisms. Beyond motivational benefits, the integration of Quizizz also appeared to enhance students' digital operational competence. Several learners expressed greater confidence in navigating online platforms and managing connectivity challenges. One student noted;

*"I'm getting used to using my phone for learning. I know what to do if the signal's weak I just wait and try again.*" (S2, I2, L30)

*"My phone's small, so it's hard to see the questions. Sometimes I press the wrong button*." (S3, I3, L33)

This reflection illustrates the development of digital adaptability a key 21st-century skill where learners acquire not only the technical know-how to operate digital tools but also the resilience and problem-solving orientation necessary to manage technological disruptions. The growing familiarity with mobile-assisted learning demonstrates an evolving comfort with digital ecosystems, bridging the gap between everyday technology use and purposeful academic application. In summary, the convergence of teacher observations and student experiences highlights how gamification and automated feedback systems can nurture both cognitive and affective dimensions of learning. By promoting engagement, fostering reflective practice, and strengthening digital literacy, *Quizizz* emerges as an effective pedagogical tool for cultivating self-regulated, motivated, and digitally competent learners within technology-mediated educational environments. Although minor technical challenges persisted, students viewed them as manageable obstacles rather than deterrents. Many even offered constructive feedback, suggesting more visual and challenging quiz formats:

*"I want more pictures in Quizizz, Sir. It makes the questions easier to understand*." (S1, I1, L15)

*"The questions are good, but sometimes too easy. I'd like harder ones*." (S1, I1, L50)

Moreover, both teacher and student perspectives align in recognizing Quizizz as a transformative learning tool that enhances digital literacy, nurtures self-regulated learning, and creates enjoyable yet pedagogically meaningful

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learning experiences. The platform's interactive nature not only motivates students but also cultivates essential 21st-century competencies—critical thinking, adaptability, and self-directedness within primary education contexts.

## Discussion

### *Quizizz Implementation and the Strengthening of Digital Literacy*

The findings of this study indicate that implementing the Quizizz application in classroom assessment at the primary level significantly contributed to strengthening students' digital literacy. Teachers in the present study observed that the gamified elements of Quizizz points, leaderboards, competition transformed students' perceptions of learning from passive to active, and from teacher-centered to more interactive. This aligns with previous work by Zainuddin et al. (2020) and Putra et al (2025) who found that combining game and competition elements increased student interest and attention in literacy-based gamified environments. In this sense, the use of Quizizz supports the view of contemporary educational theory that places student engagement and agency at the heart of effective learning (Khmova and Zambova, 2020). Moreover, the gamified platform not only enhanced motivation but served as a practical pathway to digital literacy. The routine interaction with digital interfaces (login, navigate, respond to questions in multimedia formats) gradually built students' confidence and competence with technology skills widely considered essential in 21st-century education. Outside Indonesia, similar studies (Nadeem & Falig, 2020) underscore how gamified platforms enable students to become more familiar with digital tools rather than only using them superficially (Leaning, 2019). Importantly, this study contributes by illustrating how Quizizz acts as not merely an evaluation tool, but a strategic mechanism for embedding digital literacy within daily classroom practices. (Putra and Badayai, 2025) Teachers' use of analytics from Quizizz to tailor instruction reflects a shift in pedagogic roles from knowledge transmitter to digital-literacy facilitator. Nonetheless, implementation challenges particularly infrastructural issues like unstable internet and device inequities emerge as significant barriers, echoing critiques of gamification's dependence on technical readiness (Joo et al., 2018).

### *Quizizz Use in the Evaluation of Learning and the Promotion of Student Autonomy*

The second major finding is that Quizizz effectively supported the development of student independence in learning. Students reported greater engagement, practice beyond the classroom, self-monitoring via instant feedback, and even peer-driven competition. This resonates with the self-regulated learning (SRL) framework of Aeni et al (2019) , which emphasizes planning, monitoring, and reflection. Within this study, Quizizz enabled all three phases: students planned by choosing when and how to engage, monitored via feedback and scores, and reflected by adjusting their performance in subsequent quizzes. The gamified environment thus acted as a scaffold for autonomy. Supporting research by Dewi (2022) similarly found that gamified evaluation platforms fostered ownership and responsibility among students. The current research extends those findings into the primary school context in Indonesia, highlighting that even in younger learners, gamified assessment can promote independent learning behaviors. The competition built into Quizizz (leaderboards, ranking) further increased intrinsic motivation, which is a key driver of autonomy and deep learning (Jiemsak and Jiemsak, 2020). However, the findings also reveal that autonomy does not develop in isolation from context: access to proper devices, stable internet, and teacher oversight remain critical. Without such supports, autonomy may be hindered or uneven across learners. This underscores the importance of equitable infrastructure for realizing the full potential of gamified, autonomous learning (Anamalai et al., 2019).

### *Integrated Benefits: Digital Literacy, Independent Learning, and Gamified Evaluation*

The third theme is the synergistic effect observed when Quizizz was implemented as part of learning evaluation: digital literacy and independent learning improved simultaneously. The platform's features gamified competition, instant feedback, analytics for teacher use supported a dual function: assessing students and advancing key competencies (Fisher and Frey, 2021). This integrated model aligns with educational theory that views assessment not merely as measurement but as a lever for learning (formative assessment). In this case, Quizizz became part of the learning process itself rather than a separate end-point. Recent meta-studies of gamification in education (Enders et al., 2021) confirm that game-based learning strategies can enhance both student motivation and academic performance. The present study contributes to these

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literatures by demonstrating that in primary education, gamified assessment can empower students to engage with digital tools meaningfully, assume responsibility for their learning, and operate with a sense of ownership (Lawrence and Tar, 2018; Fernando, 2020)). The novelty of the current investigation lies in its holistic focus on both digital literacy and learner autonomy within a gamified assessment framework in a real school setting (Burdina et al., 2019). Nevertheless, key challenges emerged: infrastructure and access inequalities, device variability, internet reliability, and the need for teachers to design high-quality quizzes and manage gamified classroom dynamics. These findings mirror wider concerns in the field (Çetin, et al 2021; Mcdougall et al., 2018) that note "gamification fatigue," equity issues, and implementation variability as major obstacles.

***Implications for Policy and Practice***

This research has several important implications. First, for practitioners, it suggests that integrating gamified assessment platforms like Quizizz can yield multiple benefits enhanced digital literacy, greater student autonomy, increased motivation if implemented thoughtfully. Teachers should be supported to design quizzes that are varied, appropriately challenging, visually engaging, and matched to students' pace and needs. Second, at school policy level, equitable access to devices and reliable internet must be prioritized to ensure that all students can benefit. Third, at system level, professional development for teachers should include digital literacy, gamification strategies, and the interpretation of analytics for instruction. Finally, for educational technology developers, the findings highlight the need for platforms to be user-friendly, afford instant feedback, support analytics, and accommodate variable infrastructure contexts (offline modes, low-bandwidth versions). Despite the promising findings, this study has limitations that must be acknowledged. First, the qualitative design and small sample (three teachers, five students) at a single school limit generalizability findings should be interpreted as context-rich insights rather than broadly generalizable outcomes. Second, the reliance on interviews and observations means findings are based on self-reported and observed perceptions; future research could incorporate longitudinal quantitative measures (e.g., pre-/post-tests of digital literacy and autonomy). Third, infrastructure context (internet connectivity, device access) may vary significantly in other schools, hence replication in diverse settings (rural, urban, different socioeconomic backgrounds) is required. Finally, while gamification shows promise, caution is needed regarding potential drawbacks (e.g., over-emphasis on competition, "gamification fatigue," equity gaps) which deserve further exploration.

## CONCLUSION

Based on the findings of this study conducted at SDN 008 Buluh Rampai, it can be concluded that the utilization of the Quizizz application in learning evaluation has produced a significant positive impact on strengthening digital literacy and student learning autonomy. The implementation of Quizizz consistently familiarized students with the digital learning ecosystem, enhancing their technical proficiency in operating digital devices and their ability to interpret, evaluate, and respond to information presented in interactive digital formats. Furthermore, the instant feedback feature of Quizizz proved instrumental in fostering self-regulated learning by enabling students to identify and correct mistakes independently, thereby reducing reliance on teacher intervention. Both teachers and students expressed highly positive perceptions toward the platform; students regarded Quizizz as an engaging, motivating, and stress-free assessment tool due to its gamified elements, while teachers viewed it as efficient, practical, and informative for mapping students' comprehension objectively. Nevertheless, optimal implementation remains challenged by limited technological infrastructure, inconsistent internet connectivity, and the need for comprehensive teacher training to maximize pedagogical integration. Overall, the study confirms that Quizizz serves as an innovative and effective evaluation medium that bridges technology and pedagogy to enhance digital literacy and promote student autonomy within elementary education settings.

In light of these findings, several recommendations are proposed for relevant stakeholders. For teachers, it is recommended to explore advanced features of Quizizz such as *Homework Mode* and *Redemption Questions* to cultivate students' time management, perseverance, and reflective learning skills. Teachers are also encouraged to diversify

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question types beyond multiple choice to expand students' exposure to various forms of digital interaction. For students, proactive use of the instant feedback feature is essential—students should go beyond merely viewing final scores and instead use feedback to identify weak areas and take initiative to improve understanding through self-paced revision. For school principals, addressing the technological infrastructure gap should be prioritized through the procurement of digital devices, ensuring stable internet connectivity, and providing ongoing professional development for teachers that emphasizes pedagogical—not merely technical—integration of Quizizz. For educational authorities, it is crucial to develop policies that support the wider adoption of digital evaluation platforms and to establish online teacher communities for sharing resources, question banks, and effective implementation strategies. Lastly, for future researchers, it is suggested to conduct comparative quantitative studies measuring the effectiveness of Quizizz against other digital or conventional evaluation tools, investigate its long-term impact on students' self-regulated learning habits, and explore how Quizizz contributes to the development of higher-order thinking skills such as analysis, evaluation, and critical reasoning, which represent the logical extension of learner autonomy in the digital age.

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