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UNDERSTANDING TEACHER AND STUDENT PERCEPTIONS OF GAMIFIED LEARNING AND ITS IMPACT ON LEARNING MOTIVATION THROUGH THE WAYGROUND PLATFORM

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Abstract: This study aims to examine teacher and student perceptions of gamified learning and its influence on learning motivation in Islamic elementary school settings. The research employs a qualitative multiple-case study approach supported by descriptive quantitative data to explore how gamification is interpreted, experienced, and accepted by teachers and students. Data were collected through questionnaires, in-depth interviews, focus group discussions, classroom observations, and documentation. Thematic analysis based on the interactive model of Matthew B. Miles and A. Michael Huberman was used to identify key categories of perception and motivational change, while questionnaire data were analyzed descriptively to measure shifts in motivation levels. The findings reveal that teachers perceive gamified learning as a practical and engaging approach that facilitates instructional activities, enhances classroom interaction, and promotes active participation. Students report increased enjoyment, challenge, and curiosity, contributing to stronger intrinsic motivation as conceptualized in Self-Determination Theory. Quantitative results indicate a noticeable improvement in motivation scores following the implementation of gamified activities, supported by observable increases in student engagement. Nevertheless, several challenges were identified, including limited digital literacy among teachers and occasional technical constraints. Overall, this study underscores the significance of integrating gamification into Islamic elementary education and offers empirical insights into digital pedagogy, instructional media selection, and teacher readiness for technology-enhanced learning.

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INTRODUCTION

The rapid development of digital technologies in education has encouraged schools to adopt innovative tools that enhance engagement and motivation. Gamification, defined as the integration of game elements such as points, levels,

rewards, challenges, and immediate feedback into non-game contexts (Christopoulos & Mystakidis, 2023; Zhao, 2024), is widely promoted as a strategy for transforming conventional classrooms into interactive and student-centered environments. Theoretically, gamification is considered capable of increasing enjoyment, persistence, and learner autonomy when embedded in digital platforms (Dahlan, 2025; Holozsai & József, 2024). However, a critical issue emerges in practice: although gamification is conceptually powerful, its implementation in Indonesian elementary education particularly in Islamic elementary schools (Madrasah Ibtidaiyah) remains uneven and context-dependent. This discrepancy between theoretical optimism and practical realities (CCTES) raises questions about how and why gamification may succeed or fail in authentic classroom settings.

Empirical evidence indicates that technology integration in Indonesian schools is influenced by multiple factors, including digital literacy, infrastructure, and teacher readiness (Blyznyuk et al., 2025; Yadav, 2024). While digital platforms are increasingly available, teachers often encounter challenges in adapting pedagogical strategies to technology-rich environments, and students' learning experiences vary significantly across schools. In madrasah contexts, additional considerations such as institutional policy, curriculum orientation, and resource availability further shape the adoption of digital tools. This social and institutional complexity suggests a gap between the theoretical promise of gamification and its actual classroom impact, particularly regarding how it is perceived and experienced by both teachers and students.

Previous research has demonstrated that game-based interactive quizzes and digital gamified systems can improve motivation, engagement, and feedback quality (Dehghanzadeh et al., 2024; Vosiqova & Khadjibayeva, 2024). Most studies, however, primarily focus on measurable student outcomes, such as achievement scores or motivation scales, with limited attention to the lived experiences and interpretative perspectives of participants. Furthermore, research exploring technology integration emphasizes the importance of teacher beliefs and pedagogical orientations in shaping implementation success (Mazzuki, 2025; Ramdas et al., 2025). Despite these contributions, empirical studies that simultaneously examine teacher and student perceptions of a specific gamified platform within the Indonesian madrasah context remain scarce. Thus, this study positions itself at the intersection of digital pedagogy, perception studies, and Islamic elementary education, offering a more holistic perspective on gamified learning implementation.

Based on these gaps, this study seeks to address the following research questions: (1) How do teachers and students perceive the implementation of gamified learning using a web-based interactive learning platform in Islamic elementary schools? (2) How does gamification influence students' learning motivation in classroom practice? By formulating these questions, the research moves beyond outcome measurement to explore meaning-making processes, acceptance, and motivational shifts that occur during technology integration.

The underlying argument of this study is that the effectiveness of gamified learning is not solely determined by technological features, but by the interaction between platform design, teacher pedagogical readiness, and student perception. It is hypothesized that positive perceptions from both teachers and students will correlate with increased intrinsic motivation and classroom engagement, whereas limited digital literacy and technical constraints may moderate its effectiveness. This argument aligns with theoretical perspectives that emphasize the role of perception and belief systems in shaping instructional practices and learner participation.

Therefore, this study aims to provide a contextualized and empirically grounded understanding of how gamified learning is interpreted, experienced, and enacted in Islamic elementary education. By bridging the gap between theoretical claims and classroom realities, the research contributes to the development of more adaptive digital pedagogy strategies and offers practical insights for teachers, curriculum designers, and policymakers seeking to optimize gamification to support student motivation in the digital era.

RESEARCH METHOD

This study employed a qualitative descriptive design to explore teachers' and students' perceptions of gamified learning and its influence on learning motivation in Islamic elementary school contexts. The unit of analysis (material object) comprised the implementation of gamified learning activities using the Wayground platform within classroom practices at MI Al Hidayah Mangli Jember and MIN 3 Jember. Specifically, the study examined instructional activities, teacher–student interactions, digital learning artifacts (such as quiz interfaces, scoring systems, and feedback displays), and motivational behaviors emerging during gamified sessions. A qualitative approach was selected because the research sought to understand participants' lived experiences, interpretations, and meaning-making processes in natural settings, which cannot be adequately reduced to numerical indicators (Pregoner, 2024; Takona, 2024).

The research design focused on capturing authentic classroom dynamics through an in-depth exploration of how gamification was enacted and perceived. As a qualitative inquiry, the study emphasized contextual understanding rather than generalization, positioning perception and motivation as socially constructed phenomena shaped by pedagogical practice and digital interaction. The two schools were selected purposively based on their active integration of gamified digital platforms into instructional activities, enabling the researcher to examine real cases of technology-enhanced learning implementation.

Sources of information included teachers who implemented gamified learning, upper-grade students who participated in gamified sessions, and relevant instructional documents such as lesson plans, digital quiz content, and classroom records. Teachers functioned as key informants providing insight into pedagogical intentions, instructional strategies, and perceived challenges, while students served as primary respondents reflecting experiential and motivational responses. Supporting textual materials and digital artifacts were analyzed to

contextualize interview and observation findings, ensuring a comprehensive understanding of the phenomenon.

Data collection was conducted through multiple techniques to ensure depth and triangulation. First, desk review was undertaken to examine lesson plans, platform features, and relevant instructional documents. Second, classroom observations were carried out during gamified sessions to identify behavioral indicators of motivation, including participation intensity, enthusiasm, persistence, and interaction patterns. Third, semi-structured interviews were conducted using interview guidelines to explore perceptions, benefits, and challenges from both teachers and students. In addition, perception questionnaires were distributed to capture general motivational trends, and focus group discussions (FGDs) were organized with selected students to further clarify shared experiences and collective interpretations. These complementary techniques strengthened the credibility and richness of the data.

Data analysis followed an inductive and systematic process consisting of three main stages: data reduction, data display, and data verification. During data reduction, interview transcripts, observation notes, questionnaire responses, and documents were coded and categorized to identify meaningful units related to perception and motivation. In the data display stage, categorized findings were organized into thematic matrices to facilitate comparison across sources and cases. Finally, verification was conducted by re-examining patterns, confirming consistency among data sources, and conducting member checking with selected participants.

Methodologically, the study applied content analysis to examine recurring themes in interview transcripts and documents, interpretative analysis to understand participants' meaning-making processes, and limited discourse analysis to explore how teachers and students articulated their views on gamified learning. Through triangulation of data sources and analytical methods, as well as maintaining an audit trail of analytical decisions, the study ensured credibility, transparency, and analytical rigor. This comprehensive methodological framework enabled a contextualized understanding of how gamified learning practices influence motivation within authentic Islamic elementary classroom environments.

RESULT AND DISCUSSION

Result

This section presents the findings from two research sites, namely MI Al Hidayah Mangli Jember and MIN 3 Jember, using a multiple-case study approach to understand teachers' and students' perceptions of Wayground and its impact on learning motivation. Data were collected through perception and motivation questionnaires, in-depth interviews, focus group discussions (FGD), document analysis, classroom field notes, and photographic evidence of the learning process. Thematic analysis guided the interpretation of qualitative data, while quantitative data were used to support and strengthen the thematic findings.

A comparison of students' perceptions before and after using Wayground shows a significant improvement in engagement, enjoyment, and perceived learning effectiveness. Prior to using Wayground, most students reported that learning activities were monotonous and lacked interactivity. After its implementation, all perception indicators showed an increase in scores. These data are displayed in Table 1.

Table 1. Comparison of Student Perceptions Before and After Using Wayground

Perception Indicator	Before (%)	After (%)
Learning feels interesting	42	86
Lessons are easy to understand	55	81
Wayground helps learning	48	83
Increases learning enthusiasm	39	79
Willingness to learn longer	33	74

The improvement in perceptions aligns with interview findings. Student 7 from MIN 3 Jember stated that he felt "more motivated because there are points and levels to achieve." Student 3 from MI Al Hidayah explained that "learning feels like playing a game, so it doesn't feel forced."

Figure 1. Students enthusiastically accessing Wayground quizzes in class

Classroom photographs also display increased student enthusiasm when accessing Wayground quizzes using personal mobile phones and school devices (Figure 1). Such engagement was not observed during pre-intervention lessons based on classroom observation notes.

In addition to classroom documentation photos, data retrieved from Wayground also indicate an improvement in students' learning performance. Screenshots of quiz scores, leaderboards, and mission reports show that more students achieved higher categories after several sessions of using the platform. These results are presented in Figure 2 to provide a clearer visualization of student learning outcomes through the gamified system.

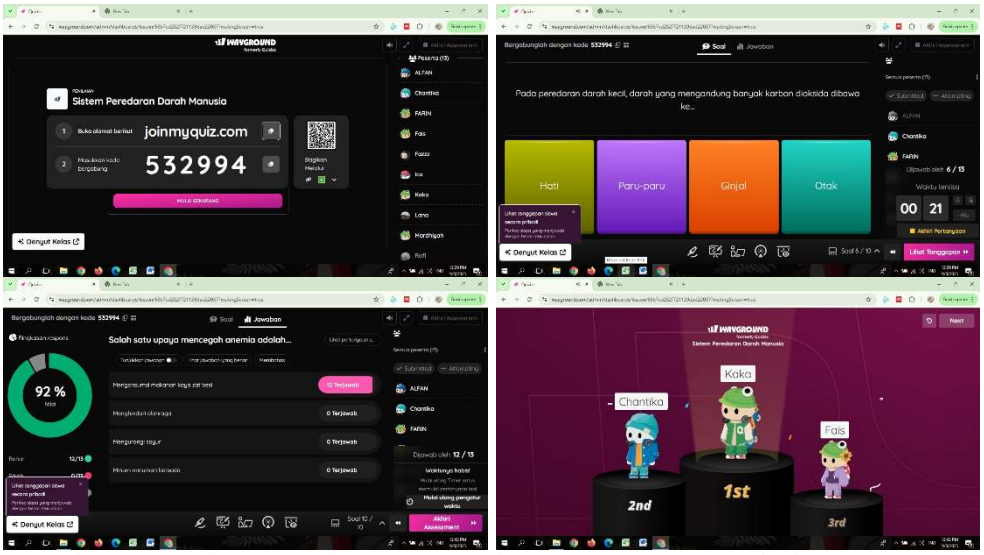

Figure 2. Quiz scores, leaderboard display, and student mission reports

Teachers at both schools also demonstrated a shift in perception after implementing Wayground. Before the orientation session, teachers believed that digital learning tools might add technical burdens. After guided practice and implementation, however, their perceptions became more positive. Table 2 presents the comparison of teachers' perceptions.

Table 2. Comparison of Teacher Perceptions Before and After Using Wayground

Perception Indicator	Before (%)	After (%)
Wayground is easy to use	40	82
Useful for monitoring students	52	88
Increases class participation	47	91
Effective for quizzes and evaluation	58	94
Reduces grading workload	31	86

Teacher A from MI Al Hidayah stated that Wayground "saves assessment time because scores appear automatically and students can see their results instantly." Similarly, Teacher B from MIN 3 Jember noted that "the class becomes livelier, although I still need to ensure a stable internet connection."

Figure 3. Researcher Explaining Wayground Features to Teachers

Photographic documentation captures the researcher explaining Wayground features to teachers prior to implementation (Figure 3), providing evidence of structured orientation.

Changes in students' learning motivation were examined using questionnaires based on the ARCS model (Attention, Relevance, Confidence, Satisfaction) and Self-Determination Theory (intrinsic–extrinsic motivation). A visual representation of motivation levels (Figure 4) shows increases across all dimensions following Wayground use.

Before implementation, attention and relevance were categorized as moderate. After implementation, both increased significantly. Satisfaction demonstrated the highest improvement, which corresponds with students' statements during FGD that they "felt proud when earning badges or leveling up."

Confidence showed the smallest increase, consistent with interview data indicating that some students required technical guidance at the beginning of the intervention.

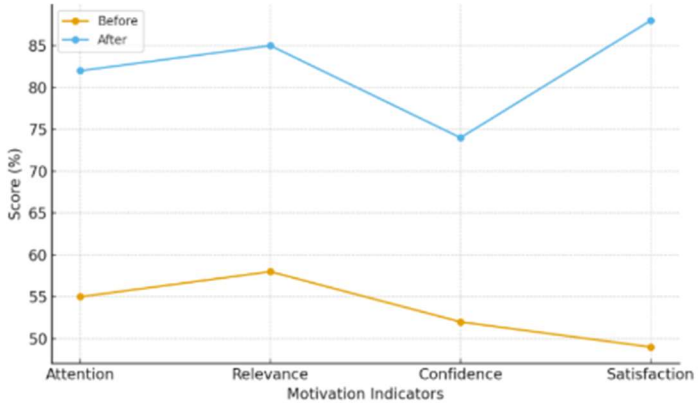

Figure 4. Motivation levels before and after using Wayground

Thematic analysis revealed detailed insights regarding how teachers and students made sense of their learning experience using Wayground. The theme of engagement shows a substantial increase after Wayground was introduced; students responded more actively and demonstrated heightened interest in participating in digital quizzes. Observation notes indicate an increase in student questioning and peer discussion during lessons.

Under the theme of enjoyment, students reported that gamification features such as points, badges, and leaderboards created a competitive yet enjoyable atmosphere that encouraged more intensive learning. Teachers perceived the classroom atmosphere as more interactive and dynamic compared to pre-implementation sessions. Technical challenges, particularly internet stability and device availability, still appeared as recurring issues, and teachers viewed these as the primary obstacles to implementation.

The theme of learning motivation emerged strongly across both participant groups. Teachers observed clear increases in student motivation, especially due to the immediate feedback provided by Wayground. Students, in turn, expressed comfort in learning through a platform that resembles a game. These findings

support Self-Determination Theory, which emphasizes the fulfillment of competence and relatedness needs through system features such as points and leaderboards.

Photographs provide concrete evidence of the implementation process at both schools. Figure 3 shows the researcher explaining Wayground features to teachers; Figure 1 illustrates classroom scenes where students access the platform; and Figure 2 displays screenshots of quiz results and leaderboards that exhibit students' scores and rankings. These visuals reinforce the authenticity of the learning activities conducted.

Document analysis at both schools reveals that Wayground assists teachers in delivering structured evaluations and materials. Wayground-generated score reports show an increase in the number of students achieving higher categories of performance after implementation.

An integrated analysis of questionnaire data, interview excerpts, observation notes, and photographic documentation demonstrates that positive shifts in perception contribute directly to increased learning motivation. Students' views of Wayground as an enjoyable, easy-to-use, game-like learning medium directly strengthened attention, relevance, and satisfaction. These changes were supported by consistent teacher facilitation throughout the implementation process.

Teachers observed the motivational impact through livelier and more responsive classrooms. This suggests that Wayground's effectiveness is shaped not only by its gamification features but also by teacher readiness, school technological infrastructure, and classroom interaction dynamics.

Discussion

The findings of this study demonstrate that the use of Wayground as a game-based interactive quiz platform significantly improved students' motivation and learning outcomes in the context of Islamic elementary education. The increase in average motivation score from pre-implementation to post-implementation, supported by the data presented in Table 1 and Table 2, indicates that the integration of gamification elements such as rewards, competition, and immersive tasks effectively enhanced students' engagement. This pattern aligns with theoretical perspectives on game-based learning, particularly the notion that interactive digital media can stimulate intrinsic and extrinsic motivation in primary school learners. Furthermore, the qualitative evidence obtained from interviews reinforces the statistical results, where students expressed heightened enjoyment, decreased boredom, and a greater sense of involvement during learning activities utilizing Wayground.

These results are consistent with (Kutscher & Parey, 2024; Pregoner, 2024; Zhou et al., 2024) framework on mixed-method educational evaluation, which emphasizes the combination of numerical and narrative data for robust interpretation. The present findings also resonate with the study by (Danford, 2023; Zhou et al., 2024), who highlights that digital games promote active participation and cognitive stimulation. Similarly, (Pacheco-Velazquez et al., 2024; Topu, 2024) found that game-based learning environments support problem-

solving and self-directed exploration, which parallels the improvements observed in student engagement in this study. Other supporting studies include (Ishaq et al., 2025; QA et al., 2025), who identified enhanced motivation in gamified e-learning environments, and (Errabo & Ongoco, 2024; Samaila & Al-Samarraie, 2024), who demonstrated that interactive quizzes significantly strengthen recall and conceptual understanding.

Several studies within the Indonesian educational context also report similar trends. Research by (Musaddad, 2025; Rofiqi et al., 2026) shows that digital learning media foster greater interest among elementary students. In another study, (Lashari et al., 2025; Raj & Singh, 2025)found that incorporating gamified tasks reduces student anxiety during assessments. The present study's results also align with (Barz et al., 2024; Lidyana et al., 2024), who reported improvement in motivation and learning outcomes when students were exposed to game-based e-learning platforms. Meanwhile, (Abouelenein & Selim, 2024; Lovink et al., 2024) emphasizes that digital simulations enhance the learning experience by making abstract concepts easier to grasp, which mirrors the students' feedback documented in the interviews. A study by (Kliziene, Taujanskiene, Augustiniene, (Aladeeb et al., 2024; Buhamad et al., 2024) further illustrates that visual and interactive components in digital learning tools contribute positively to elementary students' focus and performance.

Despite these similarities, the current research presents several elements of novelty. Unlike previous studies that focused on general gamification tools, this research specifically investigates the development and implementation of Wayground as a locally adaptable e-learning platform tailored for Islamic elementary school settings. The study not only measures motivation and performance changes through detailed statistical comparison but also integrates visual evidence, such as documentation photos and interface screenshots, positioned according to journal guidelines and described with captions below each figure. Furthermore, the use of mixed-method triangulation incorporating pre- and post-test scores, motivation questionnaires, and in-depth interview excerpts strengthens the study's credibility and offers a more comprehensive understanding of how Wayground influences the learning environment.

Another dimension of novelty lies in its practical contribution. While prior research primarily examines gamification outcomes, this study provides evidence of a structured development process that aligns with the constraints, needs, and technological readiness of Madrasah Ibtidaiyah (MI) institutions. The improvement depicted in Figure 4, showing the rise in motivation graphically, adds clarity to the effectiveness of the platform in real classroom settings. This contextual specificity makes the findings valuable for practitioners seeking to adopt or adapt similar digital tools within Islamic primary education.

Altogether, the discussion illustrates that Wayground has the potential to enhance both motivational and cognitive aspects of learning, validated by quantitative gains and enriched by qualitative insights. The combination of prior research support, methodological rigor, and contextual innovation establishes the

relevance and contribution of this study to the broader discourse on game-based learning media.

CONCLUSION

The most significant finding of this study is that gamified learning through the Wayground platform meaningfully enhances students' learning motivation and classroom engagement in Islamic elementary school contexts. The integration of game elements was not merely perceived as entertaining, but functioned as a pedagogical catalyst that fostered active participation, curiosity, persistence, and collaborative interaction. The study demonstrates that when digital tools are aligned with the psychological needs of autonomy, competence, and relatedness as emphasized in Self-Determination Theory, they can transform instructional practices into more student-centered and motivating experiences. The key lesson drawn from this research is that the success of gamification lies not only in technological features, but in how teachers meaningfully integrate them into classroom design. Thus, gamified platforms can serve as accessible and scalable strategies to strengthen digital pedagogy, particularly in educational environments transitioning toward technology-enhanced learning.

In terms of scholarly contribution, this study offers a renewed perspective by integrating both teacher and student perceptions within a single analytical framework, an approach that is still limited in gamification research. Methodologically, the combination of questionnaires, thematic interviews, classroom observations, and documentation provides a comprehensive evaluative model for examining digital learning media in authentic settings. However, the study is limited to two schools within a specific institutional context, with participants drawn from similar age groups and educational backgrounds. The reliance on qualitative interpretation and self-reported motivation data also restricts broader generalization. Therefore, future research should involve more diverse school settings, consider variations in gender and age, and apply complementary survey, experimental, or longitudinal designs to obtain a more comprehensive understanding. Such expanded investigations would provide stronger empirical foundations for policy formulation and more targeted strategies in implementing gamified learning across varied educational contexts.

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