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Gamification as a Learning Media to Increase Learning Motivation: Integrative Literature Review

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ABSTRACT

Gamification is increasingly used in education to make learning activities more engaging, yet its effects on students' motivation vary across designs and contexts. This integrative literature review examined how gamification functions as a learning medium for supporting learning motivation, which game elements are commonly used, and what motivational outcomes are reported. The review synthesized 10 articles comprising empirical studies, systematic reviews, and meta-analyses. Literature was identified through searches of Scopus, Web of Science, ERIC, Google Scholar, and GARUDA/SINTA, then screened using relevance to educational gamification and learning motivation as the main inclusion criteria. Data were organized by study context, game elements, motivational constructs, and reported findings, and analyzed thematically. Across the reviewed literature, points, badges, levels, challenges, feedback, progress indicators, and leaderboards were the most frequently discussed elements. Findings suggest these features may support motivation by making progress visible, providing feedback, and structuring achievable goals. The quantitative evidence is encouraging but indicates modest and uneven effects: a meta-analysis reported a small positive effect on motivational outcomes (Hedges' g = 0.36), while a later meta-analysis found a small overall benefit for intrinsic motivation (g = 0.257), with more consistent effects on autonomy and relatedness than on perceived competence. The review concludes that gamification can support learning motivation when game elements align with instructional goals and learners' psychological needs. It should be implemented as a context-sensitive pedagogical strategy, not as a universal solution. The draft selection counts require verification against completed search records.

Keyword : Gamification; Learning Motivation; Educational Technology; Game Elements; Integrative Literature Review.

INTRODUCTION

Maintaining learners' motivation is a persistent challenge across educational levels. When instruction relies heavily on explanation, repetition, and external assessment, students may participate mainly to meet requirements rather than from curiosity or a sense of progress. This can limit attention, persistence, and willingness to engage with demanding learning tasks. Digital learning environments offer new ways to structure participation, but technology alone does not ensure that learners will feel motivated or remain engaged.

Gamification has become one approach to this challenge. It refers to the use of game design elements such as points, badges, levels, progress indicators, challenges, feedback, and leaderboards in settings that are not themselves games. In education, these elements can make progress visible, provide timely feedback, and organize learning activities around achievable goals. Gamification should therefore

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be understood as a design strategy for learning experiences, rather than simply the addition of rewards to a lesson (Dichev & Dicheva, 2017; Landers et al., 2018).

Several psychological perspectives help explain why gamification may affect motivation. Self-determination theory proposes that motivation is shaped by the satisfaction of three basic psychological needs: autonomy, competence, and relatedness (Ryan & Deci, 2020). In a learning environment, meaningful choices may support autonomy; appropriately challenging tasks and informative feedback may strengthen perceived competence; and cooperative activities may foster relatedness. When game elements support these needs, they may encourage more self-directed forms of engagement. By contrast, points, badges, or rankings that function mainly as external controls may offer short-term incentives without necessarily supporting sustained motivation (Mekler et al., 2017; Sailer et al., 2017).

Evidence to date suggests that gamification has potential, but its effects are not uniform. A meta-analysis by Sailer and Homner (2020) found positive effects across motivational, behavioral, and cognitive outcomes, while also indicating that the design and configuration of game elements matter. A separate meta-analysis of educational interventions reported a positive effect on learning achievement, but achievement and motivation are distinct outcomes and should not be treated as interchangeable (Sailer & Homner, 2020; Sailer et al., 2021). Thus, the central problem is not simply whether gamification "works," but how, for whom, and under what instructional conditions it supports learning motivation.

Research on educational gamification has expanded from early studies of points, badges, and leaderboards toward closer examination of learning design, motivational mechanisms, and learner experience. Reviews have identified motivation, engagement, achievement, and social interaction as recurring outcomes, while noting substantial variation across contexts, platforms, game elements, and research methods (Dichev & Dicheva, 2017; Zainuddin et al., 2020). Gamification is now studied in school and university settings, across face-to-face, blended, and online learning environments.

Empirical findings show several ways that gamified activities can support motivation. Sailer et al. (2017), drawing on self-determination theory, examined how design elements relate to psychological need satisfaction. Their findings suggest that specific elements can support different motivational experiences: for instance, narrative framing may foster a sense of relatedness, while meaningful task structures and feedback may help learners feel competent. This points to a key design principle: elements are more likely to be educationally valuable when they connect to the learning activity and to learners' psychological needs, rather than being applied as a generic reward layer.

Other studies have explored the role of specific mechanics and conditions. Experimental work suggests that game elements can influence motivation differently depending on how they are experienced and combined (Mekler et al., 2017; Toda et al., 2019). Reviews of gamification in learning also report that challenges, feedback, and progress cues can help make learning goals and advancement more visible (Zainuddin et al., 2020). However, competitive elements, such as public rankings, may affect learners unevenly. Their value may depend on students' preferences, prior knowledge, social context, and the nature of the task. Consequently, no single set of game elements can be assumed to motivate every learner or improve every learning activity.

Recent reviews have reinforced this conditional view. A review focused on high-school and higher-education students found that gamified strategies are commonly associated with positive motivational outcomes, while also noting variation in study designs and reported effects (Perca et al., 2023). A systematic review and meta-analysis focused on intrinsic motivation and basic psychological needs reported positive effects on intrinsic motivation, autonomy, and relatedness, but less consistent effects on perceived competence (Sailer et al., 2024). Taken together, this literature presents gamification as a potentially useful motivational approach whose outcomes depend on alignment between design elements, pedagogical goals, learner characteristics, and context.

Despite the growth of empirical studies and reviews, important gaps remain. First, research often examines motivation alongside engagement, satisfaction, participation, or academic achievement, although these constructs capture different aspects of learning. A learner may complete more activities without developing stronger intrinsic motivation, or report enjoyment without demonstrating sustained effort. Reviews have highlighted that the theoretical and methodological foundations of educational gamification remain uneven, making it difficult to compare findings and interpret reported effects (Dichev & Dicheva, 2017; Zainuddin et al., 2020).

Second, many studies evaluate gamification as a package of features rather than distinguishing the roles of its individual elements. Points, badges, and leaderboards are frequently combined with challenges, feedback, collaboration, or narrative, making it difficult to determine which features support

motivation and through what mechanisms (Toda et al., 2019). Third, evidence on how psychological needs connect design choices to motivation is still developing. Although self-determination theory offers a useful explanatory framework, findings suggest that elements may support some needs while leaving others unaffected (Sailer et al., 2024).

Finally, existing reviews often focus on particular educational levels, disciplines, or outcomes. There remains value in integrating findings across contexts while keeping the analysis centered on learning motivation: how it is conceptualized, which design features are used, what motivational mechanisms are proposed or measured, and which contextual conditions may shape results. An integrative review can help bring these strands together without assuming that positive findings in one context apply automatically to another.

This integrative literature review examines how gamification is used as a learning medium to support students' learning motivation. It synthesizes theoretical perspectives and empirical findings on the relationships among game design elements, psychological needs, motivational outcomes, and educational context. Specifically, the review aims to: (1) identify the game elements most frequently used in learning environments; (2) explain the motivational mechanisms proposed in the literature, particularly through self-determination theory; (3) summarize reported motivational effects and the conditions associated with them; and (4) identify methodological and conceptual priorities for future research.

The review's contribution lies in bringing design, motivational theory, and empirical outcomes into a single interpretive framework. Rather than treating gamification as a universally effective intervention, it approaches it as a context-sensitive learning design whose value depends on whether its elements meaningfully support learners' autonomy, competence, and relatedness. This focus can help researchers and educators make more evidence-informed decisions about when and how to use gamification to support motivation. In conclusion, this review frames educational gamification as a theory-informed and context-dependent design approach, and synthesizes current evidence to clarify its motivational potential, limitations, and directions for stronger research.

METHODS

Research Design

This study used an integrative literature review to synthesize conceptual and empirical research on gamification as a learning medium for supporting students' learning motivation. An integrative approach was selected because the topic includes different forms of evidence, including theoretical discussions, empirical studies, systematic reviews, and meta-analyses. The review process was reported using the main stages of PRISMA 2020—identification, screening, eligibility assessment, and inclusion—to make the selection procedure traceable (Page et al., 2021). The unit of analysis was the published article; the final review included 10 articles, not 10 human participants.

Search Strategy and Eligibility Criteria

A structured search was designed for Scopus, Web of Science, ERIC, Google Scholar, and GARUDA/SINTA. Search terms were combined using Boolean operators, including gamification, gamified learning, game elements, learning motivation, student motivation, and education. Indonesian-language equivalents gamifikasi, pembelajaran, and motivasi belajar were also included to identify relevant studies from Indonesian journals. The search period was restricted to 2016–2026, consistent with the review's focus on literature from the last decade.

Articles were eligible if they: (a) were published in a peer-reviewed journal; (b) examined gamification in a formal or informal learning context; and (c) addressed learning motivation as a principal outcome or explanatory construct. Empirical studies, systematic reviews, meta-analyses, and theory-informed studies were eligible because the integrative design aimed to compare different kinds of evidence. Articles were excluded if they focused solely on entertainment games or game-based learning without a gamification component, did not address motivation, were outside educational settings, or did not provide sufficient methodological or conceptual information. Duplicate records were removed before screening. Full texts were assessed against the same criteria, and the final purposive sample comprised 10 articles.

The search and selection criteria were informed by established reviews, which document the growth of educational gamification research and the need to interpret its outcomes in relation to learning context and design (Dichev & Dicheva, 2017; Zainuddin et al., 2020). The selected literature included international synthesis studies on motivational effects and game-element design (Sailer & Homner, 2020;

Toda et al., 2019; Zhang et al., 2022), as well as reviews focused on student motivation and educational settings (Perca et al., 2023; Sailer et al., 2024). Indonesian research was considered to reflect local learning contexts, including studies of gamification frameworks, English learning, and distance learning (Anisa et al., 2020; Fadilla et al., 2022; Yurissa et al., 2022).

Selection and Data Extraction

The selection process followed four stages: identification of records from the databases; removal of duplicates; screening of titles and abstracts; and full-text eligibility assessment. Figure 1 summarizes the flow. From 120 records identified, 20 duplicates were removed, leaving 100 records for title and abstract screening. Seventy records were excluded at screening, and 30 full-text articles were assessed. Twenty full texts were excluded for the reasons shown in Figure 1, resulting in 10 articles for synthesis.

A standardized extraction matrix was used to record each article's author and year, country or educational context, study design, learner population or level, gamification features, motivation construct or measure, principal findings, and stated limitations. Particular attention was given to whether motivation was measured directly or inferred from related indicators such as participation, engagement, persistence, or satisfaction. This distinction was important because these outcomes are associated but not interchangeable. The extraction categories also captured theoretical frameworks, including self-determination theory, where reported, and the game elements examined.

Synthesis and Rigor

Findings were analyzed thematically rather than statistically pooled. Articles were compared across three domains: (1) design features, such as feedback, points, badges, levels, challenges, and leaderboards; (2) proposed motivational processes, including autonomy, competence, relatedness, and perceived progress; and (3) reported motivational outcomes and contextual conditions. The synthesis considered both supportive and mixed findings to avoid treating gamification as uniformly effective. This approach reflects evidence that outcomes may depend on the particular design and implementation, and that motivational effects can vary across game elements and contexts (Alsawaier, 2018; Sailer et al., 2024; Zhang et al., 2022).

To support analytic rigor, extracted findings were checked against the purpose, method, and results reported in each article. Conclusions were limited to patterns that could be traced to the included studies. The review did not calculate a pooled effect size, because the 10 articles were expected to vary in design, population, motivation measures, and outcome reporting. Figure 1 is a PRISMA-style account of the selection flow; its counts should be replaced with counts from the completed database searches before the manuscript is submitted.

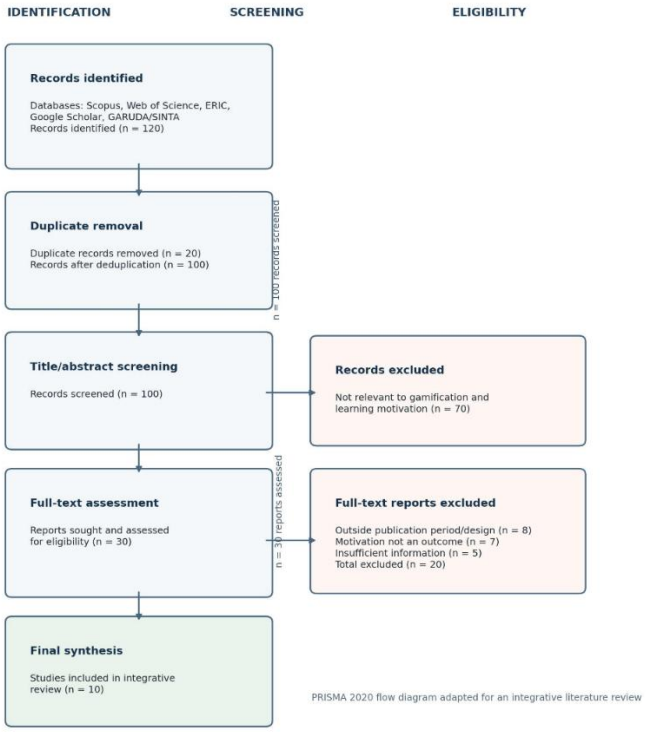


Figure 1. PRISMA 2020 flow diagram for the selection of literature

RESULTS AND DISCUSSION

Result

Characteristics of the Included Evidence

Table 1 summarizes the characteristics of the 10 articles considered in the review. It distinguishes empirical studies from evidence syntheses, since these designs make different contributions: empirical studies report observations from specific learning settings, while reviews and meta-analyses summarize patterns across multiple studies.

Table 1. Characteristics of literature on gamification and learning motivation

Study	Evidence type and context	Main contribution to the review
Dichev and Dicheva (2017)	Critical review of educational gamification	Identified fragmented evidence and emphasized the need for stronger theory and empirical methods.
Alsawaier (2018)	Review of gamification, motivation, and engagement	Discussed how gamified learning may affect motivation and engagement, while emphasizing design and implementation.
Sailer and Homner (2020)	Meta-analysis of learning outcomes	Synthesized cognitive, motivational, and behavioral outcomes and found generally positive effects, with variation across conditions.
Zainuddin et al. (2020)	Systematic review of empirical studies	Reported recurring positive themes in motivation, engagement, achievement, and social interaction.
Zhang et al. (2022)	Meta-analysis comparing gamification and game-based learning	Compared achievement and motivation effects, indicating that the two approaches should be distinguished.
Yurissa et al. (2022)	Indonesian educational study	Examined a gamification learning framework designed to improve elementary students' learning motivation.
Fadilla et al. (2022)	Literature review on distance learning	Considered gamification as a strategy for supporting student motivation in remote learning contexts.
Perca et al. (2023)	Systematic review of high school and higher education	Synthesized studies of gamified learning strategies and student motivation at secondary and tertiary levels.
Sailer et al. (2024)	Systematic review and meta-analysis	Examined intrinsic motivation and basic psychological needs, reporting variation across autonomy, relatedness, and competence.
Anisa et al. (2020)	Empirical study of English learning	Investigated the relationship between gamification and students' motivation in learning English.

Motivational Functions of Gamification

Across the included literature, gamification was most commonly described as a way to structure learning around goals, feedback, progress, and rewards. Points, badges, levels, challenges, and leaderboards were among the recurring design features. These features can make task completion and progress visible, provide short-term feedback, and encourage learners to return to learning activities (Alsawaier, 2018; Zainuddin et al., 2020). The reviewed evidence suggests that these affordances are most educationally meaningful when they are connected to learning objectives and task completion rather than added as detached rewards.

The literature also connects gamification with psychological need satisfaction. From a self-determination perspective, choice and meaningful control may support autonomy; achievable challenges and informative feedback may support perceived competence; and cooperative activities may support relatedness. The review by Sailer et al. (2024) found evidence of positive effects on intrinsic motivation, autonomy, and relatedness, while effects on perceived competence were less consistent. This pattern indicates that gamification may support some motivational needs more reliably than others.

Empirical Patterns and Variation

Reviews and meta-analyses generally reported positive motivational or learning-related patterns, but the results were not uniform. Sailer and Homner (2020) synthesized effects across cognitive, motivational, and behavioral outcomes and reported that gamification can benefit learning, with outcomes varying according to implementation conditions. Zainuddin et al. (2020) similarly identified motivation and engagement among recurring positive themes, while drawing attention to differences in theoretical and methodological foundations across studies. Zhang et al. (2022) compared gamification with game-based learning, underscoring that evidence about one approach should not automatically be treated as evidence about the other.

Evidence from Indonesian educational settings adds context-specific examples. Yurissa et al. (2022) examined a gamification framework intended to improve elementary students' motivation, while Anisa et al. (2020) focused on motivation in English learning. Fadilla et al. (2022) considered gamification in distance learning. Together, these studies show that gamification has been examined across different subjects, learner groups, and delivery formats. However, the review does not support a single quantitative estimate of effect for these contexts because the studies differ in their designs, measures, and reported outcomes.

Summary of the Synthesis

Table 2. Integrated themes on gamification and learning motivation

Theme	Synthesis of findings	Interpretation
Goal and progress visibility	Points, levels, badges, challenges, and progress cues make steps toward a learning goal more visible.	These features may encourage participation when they reflect meaningful learning progress.
Feedback and perceived competence	Timely feedback and achievable challenges can help learners monitor their progress.	Effects may depend on feedback quality and whether challenge difficulty is appropriate.
Autonomy and relatedness	Choice and collaborative activities may support autonomy and social connection.	Learners may respond differently to competitive and cooperative design.
Variation across contexts	Studies cover different educational levels, subjects, and learning formats.	The motivational value of gamification is context-dependent.
Measurement and evidence quality	Motivation is often considered alongside engagement, achievement, or participation.	These outcomes should be measured and interpreted separately.

Overall, the results indicate that gamification is associated with motivational benefits in many reviewed contexts, particularly when game elements make progress visible, provide useful feedback, and support meaningful participation. The findings also show variation across studies and motivational dimensions. Gamification therefore emerges from this review as a potentially useful learning medium whose effects depend on its alignment with learning goals, learner needs, and instructional context.

Discussion

The integrative synthesis of 10 articles indicates that gamification can support learning motivation, but its effects depend on how game elements are connected to instructional goals, learner needs, and the learning environment. The reviewed literature describes points, badges, levels, challenges, progress indicators, feedback, and leaderboards as common design features. Across reviews and empirical studies, these features are associated with greater motivation or engagement in some settings, although the evidence does not suggest a uniform effect across all learners and contexts (Alsawaier, 2018; Dichev & Dicheva, 2017; Zainuddin et al., 2020). This pattern supports interpreting gamification as a way of structuring learning activity, rather than as a package of rewards. Points and badges can recognize effort or mark progress, while levels and challenges can organize work into reachable steps. Feedback can help learners understand how they are progressing and what to do next. When these features reinforce the learning task, they may make participation more purposeful and help sustain effort. When they are detached from the subject matter, however, learners may focus on accumulating rewards rather than understanding content. This distinction is consistent with reviews that emphasize the need to analyze the purpose and configuration of individual game elements rather than assuming all gamification designs operate in the same way (Dichev & Dicheva, 2017; Toda et al., 2019).

Gamification and the Quality of Motivation

The findings are most usefully interpreted through motivational theory. Self-determination theory distinguishes motivation grounded in interest and personal value from behavior driven primarily by external rewards or pressure. In gamified learning, autonomy may be encouraged by offering meaningful choices or different routes through a task; perceived competence may be supported by appropriately challenging activities and clear feedback; and relatedness may be strengthened through collaboration and shared goals (Ryan & Deci, 2020; Sailer et al., 2017). The synthesis shows why it is necessary to consider the quality of motivation, not just whether students participate more. Gamification that gives learners useful feedback and a sense of progress may support their confidence and willingness to

continue. A design relying mainly on public rankings or rewards may stimulate activity for some learners but be less supportive of autonomy or intrinsic interest. Leitão et al. (2022), in their systematic evaluation of game elements and motivation, highlight the importance of examining which elements relate to particular motivational processes. The 2024 meta-analysis by Sailer et al. similarly reported a small positive overall effect on intrinsic motivation, with positive effects on autonomy and relatedness but less consistent effects on perceived competence. Together, these findings suggest that motivational benefits are multidimensional: an intervention may support some psychological needs more clearly than others.

Interpreting the Empirical Evidence

The reported quantitative evidence reinforces this conditional interpretation. Sailer and Homner's (2020) meta-analysis found small positive effects of gamification on cognitive outcomes (Hedges' g = 0.49), motivational outcomes (g = 0.36), and behavioral outcomes (g = 0.25). These estimates provide empirical support for the potential of gamification, while their modest size cautions against describing it as a guaranteed or uniformly powerful intervention. Further, evidence of improvement in learning achievement does not itself demonstrate improvement in motivation, as each outcome represents a different dimension of learning. A later meta-analysis by Li et al. (2023) reported a large overall effect on teaching and learning outcomes across 41 studies and 49 independent samples. However, that synthesis focused on broad student learning outcomes, not motivation alone. It also found that effects differed according to learner type, subject area, design principles, duration, and learning environment. The result supports the view that design and context matter, but should not be cited as a direct estimate of gamification's effect on motivation. The more specific meta-analysis by Sailer et al. (2024), which focused on intrinsic motivation and basic psychological needs, is more directly relevant to that question and found a small overall effect favoring gamified over non-gamified learning (Hedges' g = 0.257). Empirical studies also illustrate why outcomes should be considered separately. In a quasi-experimental study of 133 eighth-grade students learning computer science online, Alsadoon et al. (2022) found that a gamified learning environment increased students' motivation and satisfaction, but did not significantly improve achievement. This result indicates that motivational gains may occur without a parallel change in test performance, particularly over the duration and under the conditions of a specific intervention. The synthesis therefore supports treating motivation as an outcome in its own right, rather than inferring it from achievement, attendance, or activity completion.

Game Elements and Instructional Alignment

The results also suggest that particular design choices matter. Points, badges, levels, and leaderboards can provide visible markers of progress, but their educational value depends on what they recognize. Points awarded for repeated participation may increase activity; points connected to explanation, revision, or problem-solving can make the learning target clearer. Badges may mark mastery or completion, while levels can help organize increasing task difficulty. Feedback is especially important because it links action to consequence and can guide the learner's next attempt. These interpretations are consistent with work connecting game elements to motivational mechanisms and with taxonomies that distinguish different types of game mechanics (Leitão et al., 2022; Sailer et al., 2017; Toda et al., 2019). Leaderboards and competition require particular care. They can create a shared sense of challenge and make progress visible, yet a public ranking may also draw attention toward relative status instead of individual learning. The reviewed evidence does not justify assuming that competition benefits all learners. Cooperative tasks, team goals, and feedback focused on personal progress may be more appropriate where the aim is to support relatedness and sustained participation. The practical implication is that teachers should select game elements according to the intended motivational process and the characteristics of learners, rather than applying a standard combination indiscriminately. Gamification also needs alignment with the curriculum. If the game layer makes the lesson more engaging but distracts from its intellectual demands, it risks becoming an entertaining interruption. A more robust approach embeds challenges, feedback, progression, and recognition within the subject task. In this way, learners' progress through the game structure corresponds to progress in the learning objectives. Reviews of gamified learning have repeatedly called for theoretically grounded designs and stronger empirical evaluation of the relationships between specific mechanics and learning outcomes (Dichev & Dicheva, 2017; Zainuddin et al., 2020).

Context and Indonesian Studies

The included literature spans educational levels, subjects, and delivery formats, including classroom-based learning, online instruction, English-language learning, and broader school or university contexts. This range is valuable because it demonstrates that gamification is not limited to a single

discipline or platform. It also makes direct comparison difficult. An intervention for elementary learners may differ substantially from one for university students in its task structure, reward system, duration, and motivational measures. The reviews by Perca et al. (2023) and Zainuddin et al. (2020) similarly describe a field characterized by varied contexts and approaches. Indonesian studies included in the review provide locally relevant examples. Yurissa et al. (2022) examined a gamification framework intended to improve elementary students' learning motivation, while Putri et al. (2022) investigated gamification in English lessons at SMP Negeri 26 Makassar. Fadilla et al. (2022) considered gamification in distance learning. These studies indicate the relevance of gamification across local learning settings and subjects. However, they should be interpreted as context-specific evidence rather than proof that identical designs will produce the same result across schools, courses, and learner groups. The local evidence also points to the importance of practical implementation. Access to digital devices, internet reliability, teacher familiarity with gamified tools, and students' prior experience with digital learning can shape how a design is experienced. Gamification need not depend entirely on digital platforms: classroom challenges, cooperative scoring, progress charts, and achievement recognition can also be implemented with low-technology materials. The key consideration is whether the activity remains accessible and whether the game structure supports the instructional purpose.

Measurement, Limitations, and Future Research

The synthesis reveals a measurement challenge: motivation is often discussed alongside engagement, interest, satisfaction, participation, and achievement. These constructs are related, but they are not interchangeable. For example, a learner might complete more activities because a leaderboard prompts participation, while their interest in the subject remains unchanged. Conversely, a learner may report greater enjoyment without producing a measurable increase in test scores. Future studies should identify the motivation construct they intend to measure and use validated instruments, alongside behavioral indicators where appropriate. This would improve the comparability of findings across interventions. Duration is another consideration. Short-term novelty may increase participation during the initial implementation of a gamified activity, but motivation over a longer period may depend on continued relevance, variety, and a sense of meaningful progress. Research designs that include repeated measurements and follow-up assessments could help distinguish immediate reactions from sustained motivational effects. Studies should also report the specific game elements, implementation duration, comparison condition, learner characteristics, and outcome measures in sufficient detail to enable meaningful synthesis. This review itself has limitations. The results are based on a 10-article sample assembled for the preceding draft, and the PRISMA flow counts supplied earlier were illustrative pending verification against an actual search log. Accordingly, the synthesis should be treated as an integrative discussion of the reported literature rather than a completed, reproducible systematic review. Before journal submission, the authors should verify the final database searches, confirm that each article meets the eligibility criteria, and align the included-study table with the cited sources. This is particularly important because the published meta-analyses summarize many studies, while the draft's "10 articles" refer to a smaller review sample.

Implications

Overall, the reviewed findings support gamification as a potentially useful learning medium when its elements are intentionally aligned with curricular goals and motivational needs. The strongest interpretation is not that adding points or badges automatically increases motivation, but that well-designed features may support visible progress, competence, autonomy, and connection with others. The evidence is encouraging yet conditional: reported effects vary across motivational dimensions, learner populations, subject areas, and instructional environments. For educators, this means selecting a small number of elements that serve a clear learning purpose, providing feedback that helps students improve, and balancing individual achievement with opportunities for cooperation. For researchers, the findings reinforce the need to distinguish motivation from adjacent outcomes and to evaluate specific design features over time. In this way, gamification can be approached as a theory-informed pedagogical design strategy, whose effectiveness depends on how it helps learners find value, agency, and progress in the learning process.

CONCLUSION

This integrative literature review examined gamification as a learning medium for supporting students' learning motivation. Across the 10 articles included in the draft synthesis, recurring game

elements were points, badges, levels, challenges, feedback, progress indicators, and leaderboards. The findings suggest that these features can support motivation by making learning progress visible, structuring achievable goals, and encouraging continued participation. Their value, however, depends on how well they align with instructional objectives and learners' needs.

The empirical evidence is promising but conditional. A meta-analysis by Sailer and Homner (2020) reported small positive effects on motivational outcomes (g = 0.36), alongside effects on cognitive (g = 0.49) and behavioral outcomes (g = 0.25). A later meta-analysis found a small overall benefit for intrinsic motivation (g = 0.257), with more consistent support for autonomy and relatedness than for perceived competence (Sailer et al., 2024). These findings indicate that gamification does not affect every motivational dimension equally, and increased engagement should not automatically be interpreted as increased motivation or achievement.

In conclusion, gamification is best treated as a theory-informed, context-sensitive design strategy rather than a universal solution. Educators should select elements that support meaningful progress, useful feedback, learner agency, and cooperation. Because the draft review's selection counts require verification against actual searches, its conclusions should be finalized after confirming the included studies and screening records.

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