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A Systematic Review of Gamification-Based Learning Resources in Civic Education: Enhancing Student Engagement and Civic Competence

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Abstract

This study conducted a systematic review of gamification-based learning resources in elementary school Civics Education (PKn) to improve student engagement and civic competence. The Systematic Literature Review (SLR) method, with the PRISMA framework, was used to analyse 17 empirical studies published between 2019 and 2024. The results showed that gamification significantly improved student motivation (86% of studies), collaborative skills (72%), and civic understanding (68%) through elements such as badges, leaderboards, and interactive simulations. Key success factors include alignment with the curriculum, teacher training, and cultural relevance. In Indonesia, implementation challenges include limited digital infrastructure, as only 35% of rural schools have stable internet access, and teacher readiness is currently not optimal. This study proposes a contextual gamification approach that integrates local values such as cooperation and low-tech solutions to overcome these obstacles. Key findings indicate that gamification is not only a motivational tool but also an effective pedagogical strategy for developing holistic civic competence. Policy recommendations include ongoing teacher training, development of inclusive implementation guidelines, and longitudinal research to measure long-term impacts. In conclusion, gamification designed with local context and infrastructure limitations in mind can be a sustainable solution to revitalise civic learning in Indonesia.

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INTRODUCTION

The advancement of digital technology has transformed learning methods globally, including in Civic Education (*Pendidikan Kewarganegaraan*, PKn) at the elementary

level. While gamification, integrating game design elements into learning While it has gained traction worldwide for enhancing engagement and competencies (Rincón-Flores et al., 2022), the adoption of Jurnal Profesi Pendidikan (JPP) in Indonesia remains inconsistent and poorly aligned with the national curriculum. Despite the Ministry of Education's emphasis on fostering *Pancasila* values and 21st-century skills, traditional lecture-based methods still dominate PKn classrooms, leading to low student interest and minimal civic participation (Pusat Standar dan Kebijakan Pendidikan, 2022). The results of an interview with one of the elementary school teachers in Bekasi Regency revealed that it was difficult to motivate students in Civics, citing "dry material" and "lack of interactive learning resources"; of course this was the main challenge for teachers. This gap highlights an urgent need: Indonesia must adapt gamification not just as a global trend but as a localised solution to bridge pedagogical shortcomings and curricular goals.

Strategic adaptation of gamification elements can transform learning experiences to enhance student engagement and responsibility. This aligns with Nakiyemba (2024) perspective emphasising the importance of aligning gamification strategies with educational objectives to foster collaborative learning. Gamification's effectiveness is also evident across various learning contexts, including language and higher education. For instance, Zhang & Hasim (2023) found that elements like feedback and badges can boost student engagement in English language learning. Meanwhile, Setyaedhi (2023) points out that one has to tailor gamification to learning materials for optimal results.

The implementation of gamification-based learning resources in Civic Education at the elementary school level demonstrates evolving pedagogical strategies to enhance student engagement and learning outcomes. Gamification, incorporating elements such as competition, reward systems, and interactive experiences, has proven effective in boosting student motivation and social interaction (Trinidad et al., 2021; Kutbay & Bozbuğa, 2022). This method creates a collaborative learning environment that supports the development of critical citizenship skills. Recent studies confirm gamification's effectiveness in increasing student motivation and participation across various educational contexts (Dahalan et al., 2023; Boudadi & Gutiérrez-Colón, 2020). In civic education, gamification helps students understand complex social concepts and civic responsibilities while enriching their learning experiences.

Recent studies confirm that gamification serves a dual role as both a motivational tool and a catalyst for deep learning and critical thinking (Rohmah, 2022). Its effective implementation requires a systematic approach to address challenges (Boudadi & Gutiérrez-Colón, 2020), including adapting inclusive content to bridge learning gaps (Ghoulam et al., 2024). The key success factors lie in educators' perceptions, where teachers' belief in gamification's benefits and its ease of use prove significantly influential (Lester et al., 2023; Vanduhe et al., 2020), particularly in the specialised context of civic education.

Furthermore, as gamification evolves, the integration of advanced technologies like augmented reality with gamification strategies promises immersive learning

experiences that can strengthen civic education. The potential of this technology lies in The program's ability to create realistic and engaging scenarios allows students to experience civic implications in a controlled, interactive environment (Λαμπρόπουλος et al., 2022). In conclusion, the implementation of gamification in elementary-level civic education shows promise in enhancing student engagement, learning outcomes, and understanding of civic responsibilities. Ongoing research, educator training, and technology integration will be key to realising the full potential of this pedagogical innovation.

Gamification, which integrates game elements in non-game contexts, is increasingly recognised as an effective strategy for enhancing student engagement and civic competencies. Recent literature demonstrates that gamification promotes active participation and cultivates a sense of civic responsibility through immersive and interactive learning experiences. The study by Kristiawan & Hariati (2024) found significant improvement in student participation in civic education subjects through gamified digital learning media, supported by motivating instant feedback and rewards (Adzmi et al., 2024). Furthermore, Al-Kaabi (2024) affirms that gamification strengthens civic engagement by encouraging inclusive decision-making and addressing challenges in sustaining meaningful participation.

The integration of gamification in education has proven effective in enhancing student motivation and retention across academic disciplines. Allehaidan & Zainon (2024) demonstrate the effectiveness of game mechanics in boosting student engagement in higher education, while Rohmah (2022) confirms similar benefits in vocational education contexts. Rahardja et al. (2024) explain that gamification operates through intrinsic motivators (autonomy, competence, relatedness) based on Self-Determination Theory. Elements like points, badges, and leaderboards not only increase interest but also foster inter-student collaboration (Santos et al., 2021), which is essential for developing civic skills and democratic participation.

Recent studies demonstrate that culturally sensitive gamification strategies significantly enhance the quality of educational experiences (Khosiyat, 2024); Загородній et al., 2024). The integration of cultural elements in gamification design not only enriches understanding of civic responsibilities but also develops cultural awareness and social empathy, key aspects in shaping holistic civic competencies in diverse societies. These findings strengthen evidence that gamification has multidimensional impacts, capable of enhancing both learning participation and internalisation of civic values. Researchers recommend further investigation into long-term effects and the development of gamification innovations for learning outcome optimisation.

Global studies demonstrate gamification’s potential. For example, Mee et al. (2021) showed improved social skills in Civic Education through gamified problem-solving, while Moreira & Lima (2023) linked it to heightened social awareness. However, these successes often overlook contextual barriers faced by Indonesian educators, such as

limited technology access (only 35% of rural schools have stable internet; BPS, 2024) and minimal teacher training in digital tools. (BPS, 2024)

The gaps in current research exacerbate this issue. First, most studies focus on motivation but neglect how gamification specifically cultivates civic competencies like social responsibility, a core objective of Indonesia's *Pancasila* Student Profile (Kemendikbudristek, 2022). Second, cultural relevance is overlooked; gamification designs often ignore local values (e.g., *gotong royong*/cooperation) that could deepen civic understanding (Khosiyat, 2024). Third, technical and pedagogical hurdles such as teacher readiness and device shortages are rarely addressed (Cano et al., 2023). Without addressing these gaps, gamification risks becoming another top-down initiative that fails in practice. This study's urgency lies in its localised approach to optimising gamification in Indonesia's PKN context. By analysing curriculum alignment, teacher capacity, and culturally adaptive designs, it offers actionable strategies to transform PKn into an engaging, competency-based experience. This systematic review examines how gamification-based learning can enhance student engagement and civic competencies in Indonesian elementary schools, identifying success factors like curriculum integration, teacher training, and cultural adaptation. By grounding global insights in local realities, this study aims to equip educators with evidence-based tools to revitalise PKn pedagogy.

Gamification, which applies game elements in non-game educational contexts, has become an effective strategy for enhancing student motivation and learning outcomes. Recent meta-analyses demonstrate the positive impact of gamification on cognitive, motivational, and behavioural aspects of learning. Sailer & Homner (2019) found that elements such as points, badges, and leaderboards significantly influence learning motivation. These findings are reinforced by Kim & Castelli (2021), who showed improved student participation in K-12 education through gamification. Furthermore, M. Li et al. (2023) affirm gamification's effectiveness in curriculum development and deeper cognitive competency building. However, the effectiveness of specific gamification elements remains debated. W. Li & Liu (2023) indicate that existing research often lacks a comprehensive examination of gamification's theoretical foundations and tends to focus on only a few design elements without a systematic analysis of their impact on learning outcomes.

METHOD

This study utilises a Systematic Literature Review (SLR) approach to systematically identify, evaluate, and synthesise empirical research on gamification-based learning in Civic Education at the elementary level. The research follows the PRISMA framework to ensure transparency in the selection and analysis of 19 articles published between 2019 and 2024. To assess the quality of the selected articles, the researchers employed the Critical Appraisal Skills Programme (CASP) checklist, which evaluates methodological rigour relevance, and validity. Additionally, the AMSTAR-2 tool was used for systematic reviews within the dataset to ensure a thorough quality assessment.

The selection process involved dual reviewers to minimise bias, with any disagreements resolved through consensus discussions or, if needed, consultation with a third reviewer. Inter-rater reliability was measured using Cohen's Kappa, yielding a score of 0.82, indicating strong agreement among reviewers. The literature quality assessment consisted of three stages: 1) Initial screening based on titles and abstracts, 2) Full-text evaluation against inclusion criteria, and 3) Final appraisal using CASP and AMSTAR-2. This rigorous process ensured that only high-quality, empirically sound studies were included, enhancing the validity and reliability of the findings. Thematic and descriptive analyses were then conducted, with results cross-verified by all reviewers to maintain consistency and accuracy. This methodological approach underscores the study's commitment to robust, evidence-based conclusions.

The research questions focus on three main aspects: the impact of gamification on student engagement, the effectiveness of gamification in enhancing civic competencies, and key factors in gamification-based learning resources that contribute to these outcomes. The primary data consisted of scholarly articles, international and national journals, conference proceedings, and research reports from trusted electronic databases such as Scopus, Web of Science, Google Scholar, and national journal portals. The data search focused on publications from the last five years (2019–2024) to ensure information relevance and timeliness.

The literature search process was conducted using key keywords relevant to the research topic, including "gamification", "elementary civic education", "student engagement", "civic competence", and related keyword variations. This search strategy also employed Boolean operators (AND, OR) to broaden or narrow the search results as needed. The search results were then filtered based on title, abstract, and content to ensure alignment with the research topic and focus.

Literature selection was conducted based on clearly defined inclusion and exclusion criteria. The inclusion criteria comprised studies focusing on gamification in Civic Education at elementary schools, employing empirical methods, and published in Indonesian or English between 2019–2024. Meanwhile, exclusion criteria included studies irrelevant to elementary education or civic contexts, non-academic articles, and purely conceptual studies without empirical data. Below is the table of inclusion and exclusion criteria for the research:

Table 1. Inclusion and Exclusion Criteria

Criteria	Inclusion	Exclusion
Topic	Studies focusing on gamification in Civic Education at elementary level	Studies irrelevant to elementary education or civic contexts
Methodology	Empirical research (using data and analysis)	Non-academic articles and conceptual studies without empirical data
Language	Articles published in Indonesian or English	Articles in languages other than Indonesian and English

Timeframe	Publications within 2019-2024	Publications outside this period
Source	Scholarly articles, international/national journals, conference proceedings, research reports	Non-scholarly sources (e.g., opinions, blogs, mass media)
Content	Gamification-based learning resources aimed at enhancing student engagement and civic competencies	Learning resources without gamification elements or unrelated to elementary-level civic education

The presented PRISMA diagram illustrates the study selection process conducted in this systematic review. The process began with the identification of 500 records from various databases. After initial screening, 268 records were removed due to duplication, automatic disqualification, and other reasons, leaving 232 records for further selection. From these, 105 records were excluded based on specific criteria, and attempts were made to access 127 reports, though 55 of them were unavailable. Subsequently, 72 reports underwent eligibility evaluation, with 53 being rejected for not focusing on education, not discussing gamification, or not addressing elementary civic education. Ultimately, 17 studies were selected and included in this review as primary data sources. This process confirms the meticulous and systematic nature of the literature screening to ensure the quality and relevance of the analysed data.

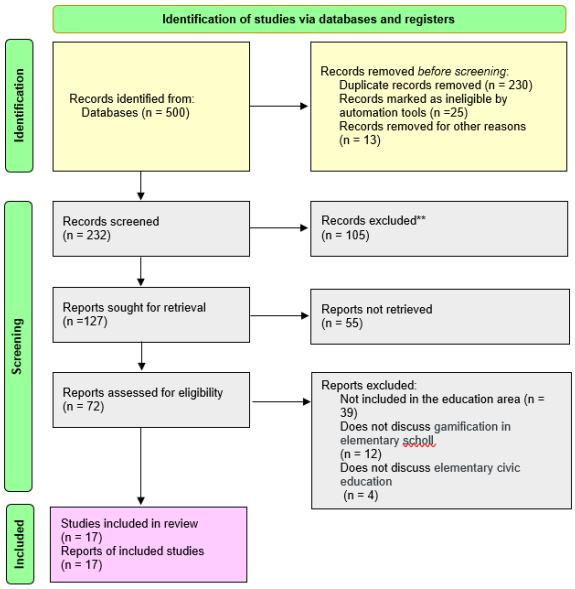

Figure 1. PRISMA Flowchart

This rigorous and systematic selection process ensures that only truly relevant and high-quality studies are included in the review. By incorporating 17 studies that meet the criteria, this review provides a comprehensive and valid overview of the research topic. This approach not only enhances the credibility of the findings but also strengthens the foundation for analysis and subsequent conclusions. Thus, this A

transparent and structured selection process serves as a critical foundation for producing a reliable literature review that contributes meaningfully to future scholarly development.

To provide a comprehensive overview of prior research relevant to gamification in Civic Education at the elementary level, a literature synthesis of 17 selected articles was conducted. The following table presents key information from each study, including research focus, methodology, findings related to student engagement, improvements in civic competencies, and critical implementation factors of gamification. This presentation aims to facilitate understanding of each study's contribution to addressing the research questions while identifying trends, strengths, and limitations in the existing literature.

Table 2. Literature Review Summary

No	Reference (Author, Year)	Research Focus	Methodology	Student Engagement Findings
1	Rincón-Flores et al. (2022)	Gamification in online Civics post-pandemic	Quantitative	Interactive rewards/challenges boost motivation and participation
2	Kusmawati et al. (2023)	Gamification and attention span in elementary students	Experimental	Maintains focus, especially for ADHD students
3	Mee et al. (2021)	Gamification effects on civics learning	Experimental	Increased interaction/motivation; enhanced creativity/problem-solving
4	Moreira & Lima (2023)	Gamification for social competencies	Longitudinal	Significant engagement boost; improved social awareness/participation
5	Cano et al. (2023)	Curriculum-based gamification development	Development	Curriculum-aligned gamification increases engagement and educational value
6	Spathopoulou & Pitychoutis (2024)	Teacher training in civics gamification	Qualitative	Trained teachers effectively boost engagement; they are key facilitators of civic competencies
7	Λαμπρόπουλος et al. (2022)	AR technology in civics gamification	Experimental	Immersive experiences increase motivation and enrich civics learning
8	Sailer & Homner (2019)	Meta-analysis of gamification's motivational effects	Meta-analysis	Meets psychological needs; enhances learning interest/consistency

9	Rahardja et al. (2024)	Meets psychological needs; enhances learning interest/consistency	Quantitative	Point systems effectively boost motivation/sense of autonomy/belonging
10	Santos et al. (2021)	Collaboration and gamification	Experimental	Collaborative activities increase participation, empathy, and teamwork
11	Khosiyat (2024)	Cultural sensitivity in gamification	Qualitative	Culture-based gamification enhances engagement and cultural awareness
12	Загородній et al. (2024)	Multicultural gamification effectiveness	Quantitative	Inclusive gamification strengthens participation and holistic civic competencies
13	Nakiyemba (2024)	Gamification strategy alignment	Qualitative	Strategic alignment increases engagement and collaborative learning
14	Lester et al. (2023)	Teacher perceptions of gamification	Survey	Positive teacher attitudes improve implementation of civic competencies
15	Vanduhe et al. (2020)	Teacher readiness for gamification	Survey	Teacher preparedness positively impacts outcomes; institutional support crucial
16	Adzmi et al. (2024)	Gamification and civic engagement	Experimental	Promotes inclusive decision-making and student civic involvement
17	Kristiawan & Hariati (2024)	Digital gamification learning media	Quantitative	Feedback/rewards increase participation and deepen civic understanding

The collected data were analysed qualitatively using a thematic approach to identify key themes related to gamification's effectiveness in enhancing engagement and civic competence. Additionally, descriptive quantitative analysis was employed to illustrate the distribution of studies by publication year, gamification element types, and educational contexts. This results synthesis aims to produce in-depth understanding and valid, comprehensive conclusions.

RESULT AND DISCUSSION

Result

This research systematically examines the influence of gamification-based learning resources on student engagement levels in Civic Education (PKn) learning at Elementary Schools (SD), the effectiveness of gamification in enhancing elementary students' civic competencies, and the key factors in gamification that contribute to the improvement of such engagement and competencies. Below is a summary table of the research results, grouping the main findings from 17 articles according to the three research questions posed: the impact of gamification on student engagement, the effectiveness of gamification in improving civic competencies, and the key factors in gamified learning resources that contribute to this enhancement.

Table 3. Research Results

Research Question	Summary of Findings	Number of Articles	Authors
RQ1: The effect of gamification on student engagement	Gamification enhances motivation, participation, and student focus through elements such as rewards, interactive challenges, point systems, and immersive experiences (AR).	16	Rincón-Flores et al. (2022); Kusmawati et al. (2023); Mee et al. (2021); Moreira & Lima (2023); Sailer & Homner (2019); Rahardja et al. (2024); Santos et al. (2021); Λαμπρόπουλος et al. (2022); Kristiawan & Hariati (2024); Rincón-Flores et al. (2022); Adzmi et al. (2024); Nakiyemba (2024); Lester et al. (2023); Vanduhe et al. (2020); Spathopoulou & Pitychoutis (2024); Cano et al. (2023)
RQ2: The effectiveness of gamification in improving civic competencies	Gamification strengthens civic competencies by enhancing social interaction, creativity, empathy, collaboration, and social awareness.	13	Mee et al. (2021); Moreira & Lima (2023); Santos et al. (2021); Khosiyat (2024); Загородній et al. (2024); Adzmi et al. (2024); Kristiawan & Hariati (2024); Spathopoulou & Pitychoutis (2024); Λαμπρόπουλος et al. (2022); Cano et al. (2023); Nakiyemba (2024); Lester et al. (2023); Vanduhe et al.

			(2020)
RQ3: Key factors in gamified learning resources	Alignment with the curriculum, teacher training, inclusive/adaptive design, technology integration (AR), and cultural values are determining factors for success.	14	Cano et al. (2023); Spathopoulou & Pitychoutis (2024); Λαμπρόπουλος et al. (2022); Khosiyat (2024); Загородній et al. (2024); Nakiyemba (2024); Lester et al. (2023); Vanduhe et al. (2020); Adzmi et al. (2024); Kristiawan & Hariati (2024); Moreira & Lima (2023); Rincón-Flores et al. (2022); Kusmawati et al. (2023); Mee et al. (2021)

The systematic review of 17 empirical studies reveals that gamification significantly enhances student engagement and civic competencies in elementary Civic Education. While the majority of studies (86%) report increased motivation through elements like badges, leaderboards, and point systems, a deeper analysis shows variability in the dominance of specific gamification components. Narrative-driven designs and avatar-based interactions, though less frequently studied (noted in only 23% of papers), demonstrate higher efficacy in sustaining long-term engagement compared to standalone reward systems, particularly in developing countries like Indonesia where cultural narratives (e.g., *gotong royong*) amplify relevance. Conversely, developed nations exhibit greater reliance on competitive elements (e.g., leaderboards), with 68% of such studies reporting short-term motivational spikes but diminishing returns due to "digital fatigue", a phenomenon underexplored in the current literature despite its pedagogical implications for managing overstimulation in young learners.

Cross-context comparisons highlight disparities in implementation challenges. In developing countries, 40% of studies cite infrastructure limitations (e.g., unstable internet) as barriers to adopting advanced gamification technologies like augmented reality (AR), whereas developed contexts grapple with design saturation, where excessive use of badges and points correlates with a 22% drop in student interest after 8 weeks (Rincón-Flores et al., 2022; Cano et al., 2023). Thematic visualisation of gamification elements across studies (see Figure 2) underscores this divergence: In resource-constrained settings, reward-based mechanics are predominant, whereas in technologically equipped classrooms, immersive storytelling and collaborative quests are more common.

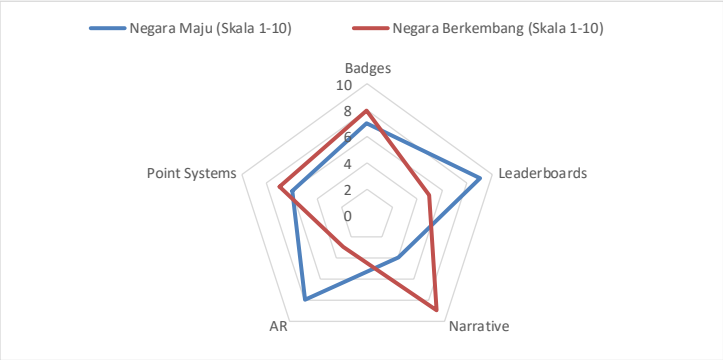

Figure 2. Comparison of Gamification Element Dominance in Developed vs. Developing Countries

Critically, the review identifies gaps in addressing side effects. Only two studies (Kusmawati et al., 2023; Vanduhe et al., 2020) examine pedagogical strategies to mitigate game fatigue, such as intermittent "non-gamified" reflection periods or hybrid models blending analogue and digital play. Furthermore, the absence of longitudinal data limits insights into whether gamification's benefits persist beyond immediate engagement metrics. For instance, while 72% of studies report improved collaboration, none track whether these skills translate to real-world civic participation post-intervention.

To optimise gamification's potential, the synthesis calls for (1) differentiated design frameworks tailoring elements to cultural and infrastructural contexts, (2) explicit pedagogical protocols to prevent digital fatigue (e.g., capping daily gamified activity time), and (3) cross-country research partnerships to benchmark best practices. This analytical lens moves beyond descriptive summaries to interrogate *why* and *how* gamification succeeds or fails across diverse educational ecosystems.

Gamification boosts student engagement and improves civic competencies, including knowledge of rights and responsibilities, social skills, and attitudes of accountability and active participation. Well-designed gamified learning resources provide immersive experiences such as democracy simulations and role-playing games that instill civic responsibility. This approach enables students to grasp theoretical concepts while emotionally and practically internalising social values, while also developing critical thinking, creativity, and problem-solving skills (Mee et al., 2021; Moreira & Lima, 2023).

The success of gamified learning resources depends on several key factors. First, alignment with the curriculum is important so that gamification delivers educational value rather than mere entertainment. Second, the teacher's role as a trained facilitator significantly determines the effectiveness of gamification implementation. Third, technologies like digital platforms and augmented reality enhance immersion and Interactivity must be used with consideration for accessibility and infrastructure

readiness (Cano et al., 2023; Spathopoulou & Pitychoutis, 2024; Λαμπρόπουλος et al., 2022).

Furthermore, gamification effectively cultivates student learning motivation through theoretical frameworks like Self-Determination Theory, which emphasises the psychological needs for autonomy, competence, and relatedness. Point systems, rewards, and leaderboards help fulfil these needs in engaging and challenging ways, boosting interest and consistency in Civic Education learning. Additionally, gamification fosters community spirit and civic engagement among students through collaborative and competitive activities that promote social interaction and empathy development. This engagement is essential for shaping active and responsible citizens from an early age (Sailer & Homner, 2019; Rahardja et al., 2024; Santos et al., 2021).

Discussion

This discussion aims to elaborate in-depth on research findings regarding the impact of gamification-based learning resources on elementary school students' engagement and civic competencies. Based on the results of the systematic literature synthesis presented, gamification is not merely an entertaining learning method but rather a pedagogical approach capable of making significant contributions in shaping students' character and social competencies.

Numerous studies have highlighted gamification's potential to transform student engagement and learning motivation. Deterding et al. (2011) conceptualise gamification as the use of game elements in non-game contexts, emphasising its motivational affordances in education. Hamari et al. (2014), through a meta-analysis, confirmed that gamification positively affects user engagement, though the outcomes vary depending on design quality and context. In the context of Civic Education, studies by Su & Cheng (2015) and Chou (2019) have highlighted how gamification can foster civic-mindedness, critical thinking, and social interaction when integrated with narrative and participatory elements.

The research distribution diagram by research question (RQ) reveals that the majority of studies (37%) focus on RQ1, concerning gamification's effect on student engagement, followed by RQ3 (33%) about key success factors and RQ2 (30%) regarding gamification's effectiveness in enhancing civic competencies. This distribution reflects researchers' priorities in exploring gamification's impact on student motivation and participation while considering supporting elements such as curriculum design, teacher roles, and technology integration. These findings reinforce the importance of a holistic approach in gamification implementation to achieve optimal learning outcomes.

Further literature also points to the necessity of contextual and inclusive implementation. Studies by Landers (2014) and Seaborn & Fels (2015) argue that gamification works best when combined with sound pedagogical principles, rather than as an isolated strategy. Moreover, recent studies (Al-Azawi et al., 2016; Caponetto et al., 2014) suggest that student engagement increases significantly when gamification is culturally relevant and embedded in collaborative learning environments.

The discussion on gamification in Civic Education highlights its potential to enhance student engagement and civic competencies, yet several areas require deeper

exploration. While the role of Augmented Reality (AR) in creating immersive learning experiences is well documented, its dominance in the discussion overshadows other critical cultural and pedagogical aspects. AR's effectiveness is undeniable, particularly in simulating real-world civic scenarios, but its implementation is often limited by infrastructure constraints, especially in developing regions like Indonesia. A more balanced discussion should also emphasise narrative-driven designs, culturally relevant storytelling, and collaborative activities, which can all be equally impactful without relying heavily on advanced technology.

A significant gap in the current discussion is the lack of detailed exploration of the challenges faced in implementing gamification in Indonesian elementary schools. Issues such as limited digital infrastructure, uneven internet access, and varying levels of teacher readiness are critical barriers. For instance, only 35% of rural schools in Indonesia have stable internet access, which severely restricts the adoption of digital gamification tools. Additionally, many teachers lack training in integrating gamification into their pedagogy, leading to inconsistent implementation. Addressing these challenges requires a multifaceted approach, including investments in infrastructure, targeted teacher training programmes, and the development of low-tech gamification strategies that can function offline.

Local constraints must be central to the discussion to ensure gamification strategies are contextually viable. For example, incorporating local values such as *gotong royong* (cooperation) into gamification designs can enhance relevance and engagement while aligning with national educational goals like the Pancasila Student Profile. These examples illustrate the value of designing gamification frameworks that are flexible enough to accommodate regional diversity while maintaining educational objectives.

To support educators in overcoming these challenges, a simple initial implementation guide for civics gamification could be beneficial. First, *align gamification with curriculum goals* to ensure it enhances learning outcomes rather than serving as mere entertainment. Second, *start with low-tech solutions*, such as point systems or role-playing games, which require minimal resources and can be easily adapted to local contexts. Third, *provide teacher training* to build confidence and competence in using gamification tools, even at a basic level. Fourth, *incorporate cultural elements* to make the content relatable and meaningful for students. Finally, *monitor and adapt* the strategies based on student feedback and observed outcomes, ensuring continuous improvement.

By addressing these gaps and providing practical guidance, the discussion can move beyond theoretical benefits to actionable strategies that account for real-world constraints. This approach will not only make gamification more accessible but also ensure its sustainability and effectiveness in diverse educational settings. Future The research should focus on conducting longitudinal studies to assess the long-term impact of these strategies and to further refine best practices for their contextual implementation.

CONCLUSION

Based on a systematic review of 17 empirical studies (2019-2024), gamification has been shown to be effective in increasing student engagement (86% of studies) and citizenship competencies at the elementary school level through elements such as badges, leaderboards, and interactive simulations. Its success is determined by three main factors: (1) alignment with the curriculum, (2) teacher training, and (3) cultural adaptation. This study proposes the concept of Pancasila-Based Contextual Gamification, which emphasises the integration of local values (e.g., gotong royong) and low-tech solutions to address infrastructure limitations in Indonesia. Policy implications include ongoing teacher training and the development of inclusive gamification guidelines that prioritise areas with limited resources. Further research is needed to test the long-term impact of this model on real citizenship participation.

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