

Implementation of Game Based Learning Models in Sociology Subjects at SMA Islam Cendekia Muda

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ABSTRACT

This study aims to analyse the implementation of game-based learning to improve students' focus and understanding of sociological concepts at Cendekia Muda Universal Islamic School. Using a qualitative descriptive design with a case study approach, data were collected through classroom observation, interviews, and documentation. The integration of digital and traditional games such as Kahoot, Quizizz, Gimkit, Zep Quiz, Nearpod, and Sosiopoly was found to improve students' motivation, engagement, and comprehension of social phenomena. The analysis employed Kolb's Experiential Learning Theory, Vygotsky's Constructivism, and Bandura's Social Learning Theory to explain how interactive and reflective experiences shape conceptual and value-based learning. Results indicate that game-based learning not only maintains students' attention but also fosters collaboration, empathy, and critical reflection. Despite challenges related to digital literacy and time allocation, this approach proved effective in transforming the sociology classroom into an active and meaningful learning environment that supports both academic and character development.

ABSTRAK

Penelitian ini bertujuan untuk menganalisis implementasi game-based learning dalam meningkatkan fokus dan pemahaman konsep sosiologi siswa di Cendekia Muda Universal Islamic School. Penelitian ini menggunakan pendekatan kualitatif deskriptif dengan metode studi kasus. Data diperoleh melalui observasi kelas, wawancara, dan dokumentasi pembelajaran. Integrasi permainan digital dan tradisional seperti Kahoot, Quizizz, Gimkit, Zep Quiz, Nearpod, dan Sosiopoly terbukti meningkatkan motivasi, partisipasi, serta pemahaman siswa terhadap fenomena sosial. Analisis penelitian ini menggunakan Teori Pembelajaran Pengalaman Kolb, Konstruktivisme Vygotsky, dan Teori Pembelajaran Sosial Bandura untuk menjelaskan

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bagaimana interaksi dan refleksi membentuk pembelajaran konseptual dan nilai sosial. Hasil penelitian menunjukkan bahwa game-based learning tidak hanya menjaga fokus belajar siswa, tetapi juga menumbuhkan kolaborasi, empati, dan refleksi kritis. Meskipun terdapat tantangan seperti literasi digital dan keterbatasan waktu, pendekatan ini efektif dalam menjadikan pembelajaran sosiologi lebih aktif, bermakna, dan berkontribusi pada pengembangan karakter siswa.

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INTROCUCTION

The rapid advancement of digital technology has significantly transformed the education landscape, reshaping how teachers and students interact in the classroom. Learning is no longer dominated by teacher-centred instruction but has shifted toward a more active, collaborative, and engaging student-centred approach. In sociology education, this shift demands innovative teaching strategies that help students connect abstract theories with real-life experiences. One emerging pedagogical approach that responds to this need is game-based learning, a method that integrates elements of games to enhance students' motivation and participation (Prensky, 2017). Sociology lessons are often perceived as abstract by students since they focus heavily on theoretical concepts such as social structure, norms, values, and social interaction. As a result, students frequently struggle to relate these ideas to their daily social experiences (Rahman, 2022). This issue becomes even more pressing in the digital era, where students' attention is easily distracted by entertainment-driven technologies (Parlina & Hudaya, 2024).

Andika et al. (2025) argues that the current technological advances are chiefly influenced by student-owned smartphones. Kusfitriani (2022) states that Generation Z is very familiar with gadgets that feature games. Generation Z really likes practical, creative, and fun learning activities. It requires teachers to innovate the learning models and media used. Helmiati (2012) explains that a learning model is a teaching format uniquely presented by subject teachers and structured from beginning to end. Learning models are the shell or framework for applying learning approaches, methods, strategies, and techniques. Therefore, innovative learning models are needed to bridge the gap between sociological theory and social reality. Game-based learning offers a promising solution by transforming the classroom into a space where learning becomes interactive, meaningful, and socially engaging (Gee, 2007). According to Prensky (2017), game-based learning is not merely entertainment but a pedagogical tool that encourages students to build knowledge through experience, interaction, and reflection. From a constructivist perspective (Piaget, 1973; Vygotsky, 1978), effective learning occurs when students actively construct their own understanding from personal experience. Through game activities, learners do not passively absorb information; instead, they develop meaning through social interaction and cooperative problem-solving. This approach is particularly relevant to sociology education, which emphasises the understanding of social behaviour through participation, observation, and reflection.

Game-based learning aligns with Kolb's (1984) experiential learning theory, which suggests that knowledge emerges from a continuous cycle of concrete experience, reflective observation, abstract conceptualisation, and active experimentation. In sociology classrooms, both digital and offline games, such as role-playing, social simulations, and interactive digital quizzes like Kahoot, Quizizz, Gimkit, and ZEP Quiz, enable students to experience firsthand how social structures and values operate in society. These learning experiences bridge the gap between theory and practice while promoting critical reflection and empathy.

At Cendekia Muda Universal Islamic School, teachers have implemented game-based learning as part of an active learning model that focuses on character and social development. In sociology classes, teachers use both online games (e.g., Wordwall, Kahoot, Gimkit, ZEP Quiz) and offline activities, such as social role-play, debate, and the board game Sosiopoly. These strategies are designed not only to improve students' conceptual understanding but also to nurture essential social values such as cooperation, empathy, responsibility, and fairness. Such values are critical in forming students' social awareness and preparing them to become active members of society. This approach is also consistent with Bandura's (1977) social learning theory, which highlights that individuals learn through observation and interaction with others. Game-based learning creates opportunities for students to collaborate, model positive behaviour, and learn from one another in simulated social contexts (Hudaya & Salsabila, 2024). These interactions help foster teamwork, communication, and social responsibility, key outcomes of sociology education.

Previous studies have shown that game-based learning can significantly enhance student engagement and learning outcomes. Gee (2007) noted that game elements such as challenge, feedback, and competition provide an engaging learning environment that motivates students to explore concepts more deeply. Similarly, Fadli (2021) found that educational games help students contextualise sociological theories by involving them directly in real-life simulations. Amalia et al. (2024) found that applying the GBL learning model during instruction significantly increased students' interest in learning compared to conventional models. Hudaya & Parlina (2025) further discovered how game-based learning platforms can be maximised further to educate students via the video game *Undertale*, leveraging its narrative to teach students about human rights. These findings suggest that integrating game-based learning into sociology education can improve both conceptual understanding and classroom dynamics. However, this approach still faces challenges. Time constraints, limited digital resources, and teachers' readiness to design appropriate educational games are among the obstacles that hinder its effectiveness (Kobatubun, 2023). Therefore, it is crucial to examine how game-based learning is implemented and how effective it is in real educational settings, particularly in schools that already promote active, character-based learning.

This research aims to analyse the implementation of game-based learning in strengthening sociology learning at Cendekia Muda Universal Islamic School. Specifically, it explores how game-based strategies are applied in classroom practice, how students respond to them, and how these model influence their sociological understanding and social behaviour. The findings are expected to contribute to the development of more engaging and relevant sociology learning strategies that align with the educational demands of the 21st century. Games are a form of direct learning through a learning-by-doing approach, which can help students understand abstract sociological material.

RESEARCH METHODS

This research employed a qualitative descriptive case study design to analyse the effectiveness of game-based learning in sociology education at Cendekia Muda Universal Islamic School. The qualitative approach was chosen to provide an in-depth understanding of the learning process and students' experiences. At the same time, the case study design allowed the researcher to explore this phenomenon within its real educational context. This method was considered the most appropriate since the study aimed to capture the practical implementation and outcomes of interactive learning strategies in a specific school environment. The study was conducted at Cendekia Muda Universal Islamic School, located in Bandung, Indonesia. This school emphasises active, character-based education, making it an ideal setting to examine how innovative digital learning strategies, particularly game-based learning, strengthen students' sociological understanding. The participants in this study included one sociology teacher and students in grades ten and eleven who were directly involved in classroom activities that incorporated both digital and non-digital game-based learning. The sociology teacher served as the primary informant, while the students provided insights regarding their engagement, motivation, and perceptions of the learning experience.

Data collection was conducted through observation, interviews, and documentation. Classroom observations were conducted to assess students' interactions, engagement levels, and participation during game-based learning. The observations covered both online learning activities, which involved digital platforms such as Kahoot, Wordwall, Nearpod, Gimkit, Quizizz, and ZEP Quiz, and offline activities, including social simulations, debates, and an original board game called Sosiopoly. These games were designed to translate abstract sociological concepts such as norms, roles, and social structures into interactive experiences that encouraged collaboration and reflection. In addition to observation, semi-structured interviews were conducted with the sociology teacher. They selected students to explore their perceptions of the effectiveness of game-based learning in enhancing motivation and understanding. The teacher interviews focused on instructional design and pedagogical challenges, while student interviews

explored engagement, enjoyment, and perceived learning outcomes. Meanwhile, document analysis was used to examine relevant materials, including lesson plans, syllabi, teaching media, and student learning evaluations. These documents provided supporting evidence for triangulation and helped validate the data gathered through other methods.

Data were analysed using the Miles and Huberman (1994) interactive model, which consists of three concurrent steps: data reduction, data display, and conclusion drawing. During data reduction, all field notes, interview transcripts, and observation records were reviewed and categorised based on emerging themes such as motivation, participation, social interaction, and conceptual understanding. Data display involved organising the findings into descriptive patterns to illustrate how digital and non-digital games contributed to the learning process. Finally, conclusions were drawn to interpret the findings in relation to the research objectives. To ensure the credibility and reliability of the findings, the study applied data triangulation and methodological triangulation. Data triangulation was achieved by comparing information obtained from different sources, teachers, students, and classroom observations, while methodological triangulation was applied by using multiple data collection techniques. This combination strengthened the validity of interpretations and ensured that the findings accurately represented the classroom reality. This methodological framework allowed for a comprehensive exploration of how game-based learning, both online and offline, enhanced student participation and sociological understanding within the dynamic learning environment of Cendekia Muda Universal Islamic School.

RESULTS AND DISCUSSION

Implementation of Game-Based Learning in Learning Sociology

The implementation of game-based learning in sociology education at Cendekia Muda Universal Islamic School has been systematically integrated into the learning process. The teacher designed classroom activities that combined both digital and traditional games, allowing students to experience a blend of competition, collaboration, and reflection. This integration aimed not only to increase enjoyment but also to deepen students' understanding of sociological concepts through experiential engagement (Camacho-Sánchez et al., 2022; de Carvalho & Coelho, 2022). During the digital sessions, several interactive platforms were utilised, including Kahoot, Wordwall, Nearpod, Gimkit, Quizizz, and ZEP Quiz. These platforms were incorporated at different stages of the lesson to align with specific pedagogical goals. In the introductory phase, tools such as Kahoot and Quizizz were used to activate students' prior knowledge and introduce new sociological themes in an interactive, enjoyable way (Fitria, 2023). In the core learning stage, Nearpod and Wordwall facilitated collaborative exploration of sociological concepts, allowing students to analyse real-life cases and apply theoretical frameworks collectively (Sujarwo et al., 2023). In the closing phase, Gimkit and ZEP Quiz were used to evaluate understanding while maintaining engagement and a stimulating atmosphere. The immediate feedback and visual progress provided by these digital tools supported students' self-assessment and reflection, reinforcing motivation and autonomy (Yusri & Zainal, 2025).

In offline classroom settings, the teacher implemented traditional game-based approaches, including social structure simulations, role-playing, debates on social roles, and a custom-designed board game called Sosiopoly. In the "social structure simulation" activity, for example, students were assigned different social roles: leaders, workers, and citizens, to experience firsthand the realities of inequality, cooperation, and social interdependence. Through role-playing and debate sessions, students examined real-world phenomena such as social stratification and the function of norms in maintaining social order. These activities allowed students to connect abstract sociological theories with authentic experiences, thus bridging the gap between conceptual understanding and lived social dynamics (Ambawani et al., 2024; Khusna & Anjani, 2025). The integration of digital and traditional game-based learning created a holistic, student-centred classroom environment, transforming sociology lessons into spaces of discovery,

reflection, and shared meaning-making. The implementation of these activities reflects Kolb's (1984) Experiential Learning Theory, which emphasises that effective learning

occurs through a continuous cycle of experience, reflection, conceptualisation, and experimentation. The game-based activities provided students with concrete experiences through simulations and interactive games. They then engaged in reflective observation through class discussions, where they analysed their experiences and connected them with sociological theories.

This process led to abstract conceptualisation, in which students formulated new understandings of social systems, and, finally, to active experimentation as they applied these insights in subsequent games or real-world observations. The interactive environment also aligns with Vygotsky's (1978) Constructivist Theory, where learning occurs within the zone of proximal development through social interaction and collaboration. As students participated in group debates and cooperative games, they engaged in peer learning that enhanced both conceptual comprehension and communication skills. Furthermore, studies by Sitzmann (2011) and Su and Cheng (2015) have demonstrated that simulation-based and gamified learning activities can significantly improve students' motivation and retention. Similarly, Wang and Tahir (2020) found that integrating tools such as Kahoot enhances engagement and immediate feedback, reinforcing both focus and enthusiasm for learning. In line with Zainuddin and Perera (2019), this combination of digital and traditional approaches promotes student autonomy, competence, and social relatedness within classroom learning.

Through this integrated model, game-based learning transformed the sociology classroom into an interactive laboratory of social life. Students were no longer passive recipients of information but active participants in constructing sociological meaning. The blend of digital and traditional games enabled them to experience, reflect on, and reinterpret social phenomena in ways that made learning both enjoyable and intellectually meaningful.

Table 1. Implementation of Game-Based Learning in Sociology Classes

No	Game Type	Media/ Platform Used	Learning Stage	Learning Activity Example	Learning Objective
1	Digital Game	Kahoot, Quizizz	Opening	Quick quiz on social interaction concepts	To activate prior knowledge and increase student motivation
2	Digital Game	Wordwall, Nearpod	Core Activity	Matching sociological terms, interactive analysis on social phenomena	To explore sociological theories through collaboration and reflection
3	Digital Game	Gimkit, ZEP Quiz	Closing	Competitive quiz on social structure and cultural change	To assess students' understanding and stimulate critical discussion
4	Traditional Game	Simulation & Role-play	Core Activity	Simulation of "social structure" or "division of roles in society"	To understand social stratification and role relationships through experience

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5	Traditional Game	Board game (Sosiopoly)	Core/Clos ing	Players act as citizens in different social classes	To experience social inequality and cooperation in a playful setting
6	Traditional Game	Debate Activity	Core Activity	Debating “the impact of norms in maintaining social order”	To develop argumentation, empathy, and critical reasoning

During the lessons, the teacher integrated these games into the learning flow, beginning with attention-grabbing quizzes in the opening stage, progressing to interactive simulations and analytical discussions during the core learning, and ending with a review with reflective or evaluative games in the closing session. Through this systematic integration, students were encouraged to connect their experiences with sociological theories, resulting in more meaningful learning. This implementation reflects Kolb's (1984) Experiential Learning Theory, which explains that effective learning occurs through a continuous process involving concrete experience, reflective observation, abstract conceptualisation, and active experimentation. Through these cycles, students engaged in experiences (playing games), reflected on their participation (through class discussions), developed conceptual understanding (by linking to sociological theory), and reapplied their insights in new contexts (in subsequent games or case analyses).

By combining digital innovation with traditional classroom interaction, game-based learning transformed sociology lessons into a dynamic, reflective environment. Students no longer acted as passive listeners but became active participants in constructing sociological meaning learning through experience, dialogue, and collaboration.

The impact of game-based learning on Sociology learning process

The implementation of game-based learning in the sociology subject at Cendekia Muda Universal Islamic School led to noticeable changes in classroom dynamics and student behaviour. Students became more active in discussions, more engaged in exploring social concepts, and more motivated to participate throughout the lesson. The classroom atmosphere shifted from passive reception to one of collaboration, inquiry, and mutual respect (Abidin & Rumansyah, 2021). During the lessons, students demonstrated increased participation in both digital and traditional learning activities. In digital sessions using platforms such as Kahoot, Wordwall, Nearpod, Gimkit, Quizizz, and ZEP Quiz, students competed enthusiastically while also exchanging ideas about sociological topics. The gamified structure of these activities encouraged students to stay focused and attentive, as each session offered immediate feedback and visible progress (Wang & Tahir, 2020). This instant feedback mechanism helped students recognise their own understanding and areas for improvement, making the learning process more transparent and interactive (Su & Cheng, 2015). Beyond the digital environment, offline activities such as debates, social role simulations, and the Sosiopoly board game encouraged deeper exploration of sociological concepts. Students engaged in discussions that reflected their interpretations of social phenomena, such as inequality, social norms, and power relations (Fadli, 2021). Through these interactions, they developed not only cognitive understanding but also social skills like empathy, teamwork, and communication (Bandura, 1977; Huizenga et al., 2009). The teacher noted that students who had been quiet became more confident in expressing their opinions, and group discussions became more balanced and participatory.

The increase in motivation and collaboration can be understood through Gamification Theory, as proposed by Gee (2007), which suggests that the use of game elements such as challenge, competition, and feedback can create a learning environment that sustains engagement and curiosity (Hamari, Koivisto, & Sarsa, 2014; Boyle et al., 2016). In this research, the presence of goals, scores, and rewards stimulated students' intrinsic motivation to learn (Anderson & Rainie, 2020). Instead of perceiving sociology as a static subject filled with definitions and theories, students began to experience it as a living and dynamic discipline connected to real-world situations (Kobatubun, 2023). Moreover, the social dimension of learning that emerged during these activities aligns with Vygotsky's (1978) Constructivist Theory, particularly the concept of the Zone of Proximal Development (ZPD). Within this zone, students can reach higher levels of understanding through interaction and collaboration with their peers. The games functioned as social learning spaces in which students supported each other's learning through dialogue, observation, and imitation (Bandura, 1977; Zainuddin & Perera, 2019). For example, during group discussions following the game sessions, students collaboratively reflected on their answers and clarified sociological concepts by connecting their in-game experiences to theoretical frameworks (Kolb, 1984; Sitzmann, 2011).

The relationship between teachers and students also became more dynamic as a result of this approach. Teachers transitioned from being the sole provider of knowledge to facilitators who guided and encouraged students to construct meaning from their own experiences (Sanjaya, 2020). This shift fostered a classroom culture characterised by open communication, mutual respect, and active engagement (Kemendikbudristek, 2022). Students reported feeling more comfortable asking questions and expressing opinions, while the teacher gained more opportunities to assess students' understanding naturally and interactively. The use of game-based learning revitalised the sociology classroom by promoting a participatory, collaborative, and student-centred learning environment. The integration of games encouraged learners to think critically, work together, and internalise sociological knowledge through meaningful interaction. From both theoretical and practical perspectives, the combination of Gamification Theory and Constructivism demonstrates that learning through play is not a distraction from education, but rather a robust process through which students build knowledge, confidence, and social awareness (Abidin & Rumansyah, 2021).

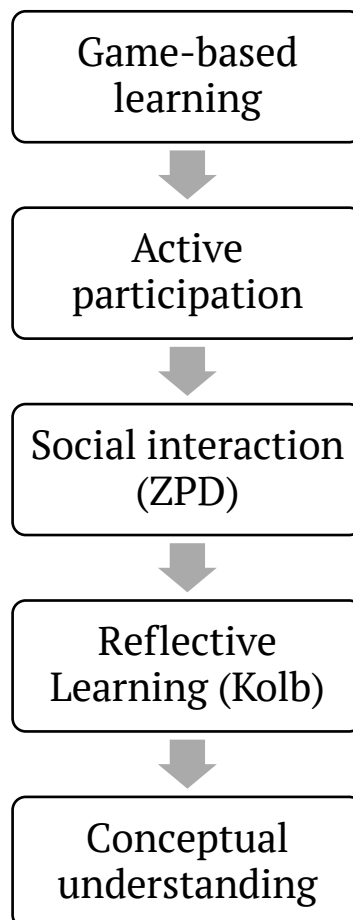


Diagram 1. Theoretical framework of Game-Based Learning in Sociology Subject at Cendekia Muda Universal Islamic School (Source: researcher's analysis, 2025)

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other's learning through dialogue, observation, and imitation. For example, during group discussions following the game sessions, students collaboratively reflected on their answers and clarified sociological concepts by connecting their in-game experiences to theoretical frameworks. The relationship between teachers and students also became more dynamic as a result of this approach. The teacher transitioned from being the sole provider of knowledge to a facilitator who guided and encouraged students to construct meaning from their own experiences. This shift fostered a classroom culture characterised by open communication, mutual respect, and active engagement. Students reported feeling more comfortable asking questions and expressing opinions, while the teacher gained more opportunities to assess students' understanding naturally and interactively.

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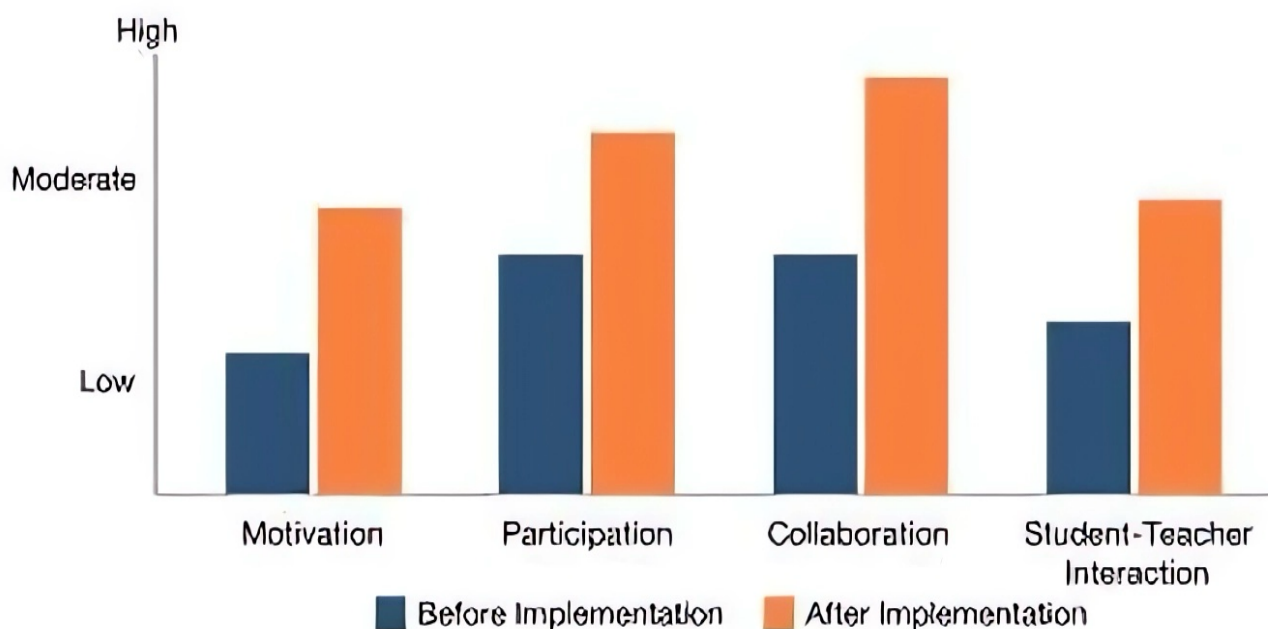
Comparison of student engagement before and after implementing game-based learning

The comparative analysis presented in Figure 2 illustrates the improvement in four major dimensions of student engagement:

1. Motivation
2. Participation
3. Collaboration
4. Teacher–student interaction.

Following the implementation of game-based learning in sociology education at Cendekia Muda Universal Islamic School. The data were derived from classroom observations and student reflections conducted throughout the study. Before the integration of game-based learning, students tended to exhibit relatively low motivation and passive engagement during lessons. Traditional learning activities, such as lectures and note-taking, often resulted in limited student participation and minimal collaboration. As depicted in the blue bars of Figure 2, motivation and interaction were categorised as low to moderate, suggesting that students were less involved in exploring sociological issues or in expressing their perspectives during classroom discussions. After implementing game-based learning, however, all four indicators demonstrated significant improvement. The orange bars in Figure 2 show a consistent rise in engagement, with the most significant increases observed in collaboration and participation. Students became more enthusiastic when engaging with digital platforms such as Kahoot, Wordwall, Gimkit, and ZEP Quiz, which offered interactive and competitive learning experiences. The inclusion of both online and offline games encouraged them to communicate, share ideas, and collectively solve sociological problems.

Comparison of Student Engagement Before and After Game-Based Learning Implementation



Source: Researcher's analysis, 2025

Diagram 2. Comparison of student engagement before and after game-based learning implementation in sociology education at Cendekia Muda Universal Islamic School (Source: Researcher's analysis, 2025)

The growth in collaboration can be attributed to the cooperative design of the games, which required students to work together in groups or pairs. Similarly, the enhancement in motivation and participation reflects the influence of (Gamification Theory Gee, 2007), which posits that learning environments incorporating game elements foster engagement through curiosity, challenge, and immediate feedback. The notable improvement in teacher–student interaction also indicates a shift in classroom dynamics, as the teacher adopted a more facilitative role, guiding, observing, and providing reflective feedback rather than dominating instruction. Overall, the data confirm that game-based learning catalyzes transforming passive classrooms into active learning communities. By integrating play with pedagogy, this approach not only increases students' enthusiasm but also enhances the social dimension of learning, creating a more interactive, equitable, and meaningful educational experience.

Strengthening conceptual understanding and social values

The implementation of game-based learning at Cendekia Muda Universal Islamic School not only improved students' engagement and motivation but also significantly strengthened their conceptual understanding of sociology and their internalisation of social values. Through various digital and traditional learning activities, students were encouraged to connect abstract sociological theories with real-life experiences, fostering a deeper comprehension of how social systems, norms, and roles operate within society (de Carvalho & Coelho, 2022; Sujarwo et al., 2023). In particular, game-based activities such as social structure simulations, Sosiopoly, and online interactive quizzes helped students translate theoretical concepts into practical understanding. During the simulation of “social structure,” for instance, students took on different social roles: leaders, workers, entrepreneurs, and citizens and directly experienced inequality, cooperation, and interdependence within a social hierarchy. This experience

enabled them to grasp complex sociological ideas, such as social stratification, class mobility, and collective behaviour, in a more tangible and participatory way (Ambawani et al., 2024). Similarly, in the Sosiopoly board game, students faced decision-making scenarios that mirrored economic and social dilemmas, prompting reflection on how individual actions shape collective outcomes. This approach resonates with the findings of Krouska et al. (2021), who emphasised that mobile and gamified learning models create immersive social contexts that bridge theoretical knowledge with applied understanding. Moreover, Kalashnikova et al. (2022) noted that gamification can serve as a practical framework for developing sociological competencies, particularly empathy, cooperation, and critical reasoning, when integrated into reflective classroom discourse. These outcomes confirm that game-based learning, when systematically embedded in curriculum design, can transform sociology lessons into active laboratories of social life, where students learn not only about society but through social interaction itself.

The use of these experiential activities aligns closely with Bandura's (1977) Social Learning Theory, which emphasises that learning occurs through observation, imitation, and modelling within social contexts. Through interactive games, students not only learned from their own participation but also from observing their peers' strategies, behaviours, and problem-solving approaches. As students engaged in cooperative and competitive situations, they developed social competencies such as empathy, teamwork, and respect for differing perspectives (Huizenga et al., 2009). These interactions provided opportunities for vicarious learning, as students internalised social norms and ethical behaviour by witnessing and reflecting on others' actions during the games. The classroom environment became a microcosm of society, where social learning was continuously reinforced through communication, collaboration, and feedback (Sitzmann, 2011). For example, during reflection sessions following each game, students discussed the social implications of their actions within the game and related them to real sociological phenomena (Fadli, 2021). This process of reflection and modelling encouraged the development of moral reasoning, tolerance, and social responsibility, key components of civic education within sociology learning (Kobatubun, 2023). The teacher's role as a facilitator was also crucial in guiding students to identify the social meanings embedded in their experiences, ensuring that learning through games did not remain superficial but evolved into deeper value formation.

The results suggest that game-based learning is an effective medium for developing not only cognitive understanding but also the affective and social dimensions of learning. Students learned to analyse social structures while simultaneously practising cooperation, leadership, and empathy (Zainuddin & Perera, 2019). This holistic form of learning reinforces the idea that education should not only transmit knowledge but also cultivate character and social awareness. As Bandura (1977) asserts, human behaviour is shaped by continuous interaction among personal factors, behaviour, and the environment. The game-based learning environment provides precisely that balance, where students think, act, and reflect within an authentic social setting that mirrors real life.

Social Value Formation Through Game-Based Learning Activities in Sociology Classrooms at Cendekia Muda Universal Islamic School

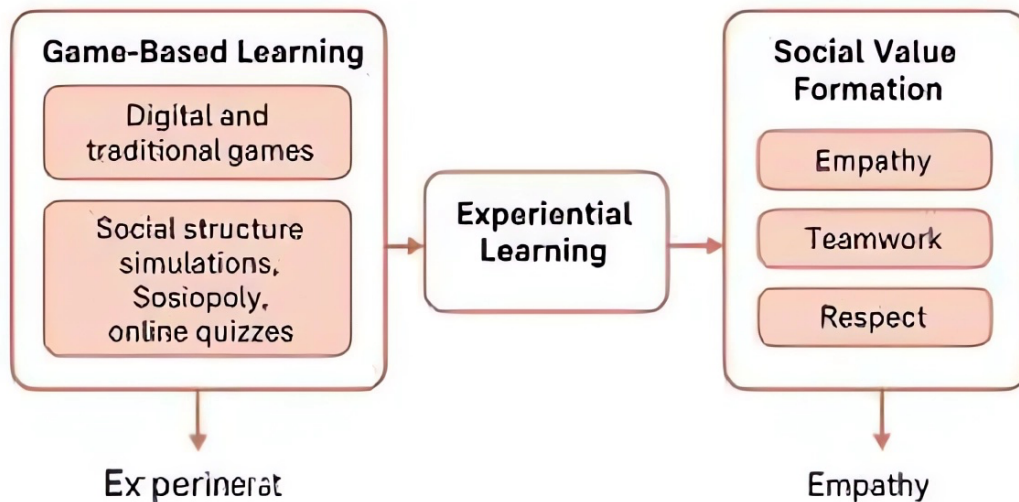


Diagram 3. Social value formation through game-based learning activities in sociology classrooms at Cendekia Muda Universal Islamic School (Source: Researcher's analysis, 2025)

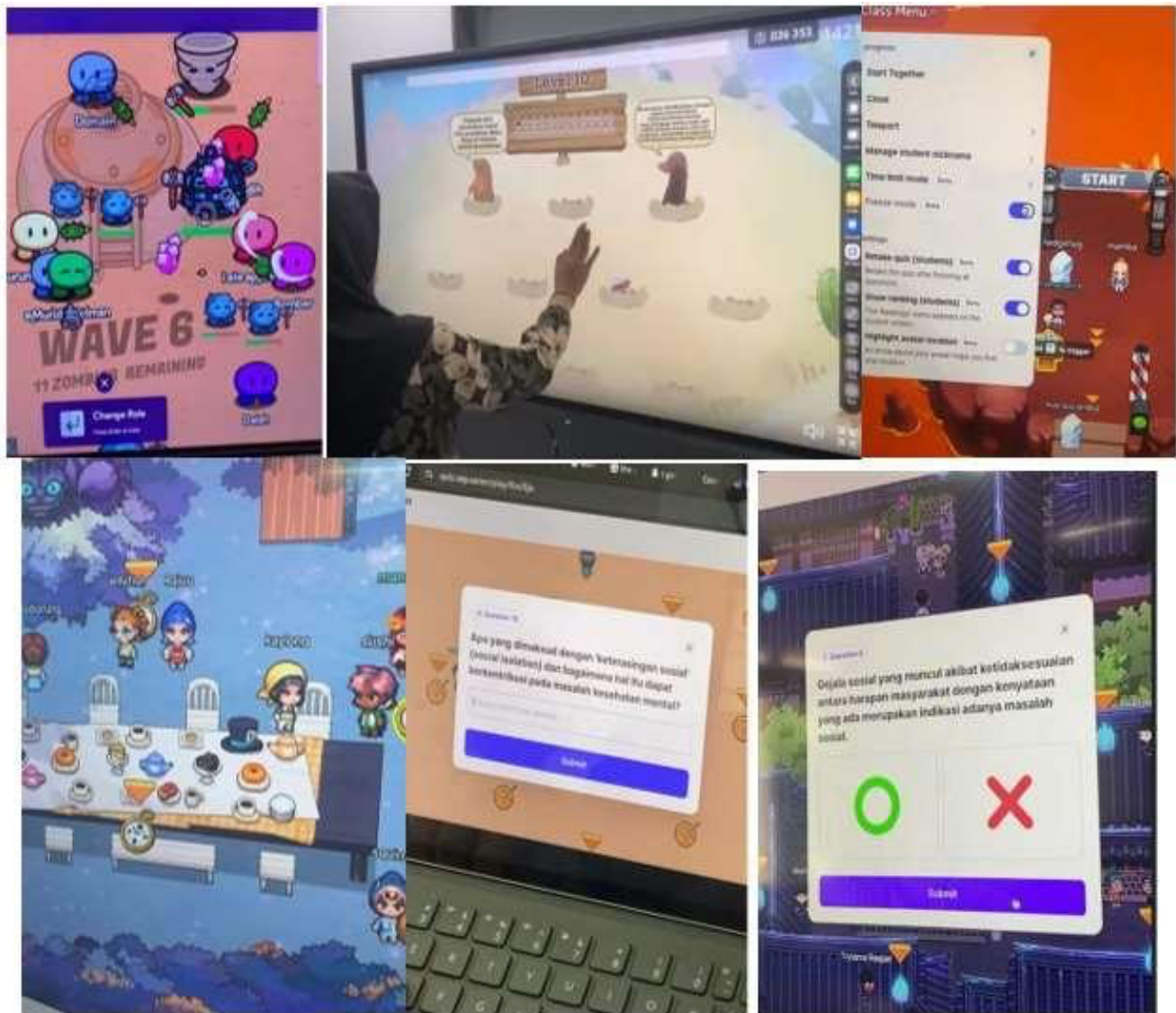
The diagram highlights the interconnection between game-based learning, experiential learning, and social value formation, illustrating how interactive educational experiences can nurture both the cognitive and affective dimensions of student learning (Camacho-Sánchez et al., 2022; Usman et al., 2024). The process begins with game-based learning activities, both digital and traditional, such as *Kahoot*, *Quizizz*, *Wordwall*, and *Social Structure simulations*. These activities create dynamic classroom environments where students actively participate, solve problems, and engage in social interactions that mirror real-world contexts (Ambawani et al., 2024; Fitria, 2023). Through these participatory experiences, learners move beyond rote memorisation toward a deeper internalisation of social dynamics, as they connect lived interactions with abstract sociological concepts—the central component of the model—experiential learning functions as a bridge between activity and value formation. Drawing on Kolb's (1984) Experiential Learning Theory, students progress through stages of concrete experience, reflective observation, abstract conceptualisation, and active experimentation. Each cycle enables them to transform gameplay experiences into meaningful sociological insights (Yusri & Zainal, 2025). For example, while engaging in role-playing or *Sosiopoly* simulations, students reflect on and discuss issues such as social inequality, mobility, and cooperation, deepening their understanding of structural forces in society (Khusna & Anjani, 2025).

As students interact, negotiate roles, and make collective decisions, they engage in social modelling and imitation, which aligns with Bandura's (1977) Social Learning Theory. This theory has recently been reaffirmed in educational research, which emphasises that gamified and collaborative learning environments foster social empathy, teamwork, and moral reasoning (Gravelsina & Daniela, 2024; Ratna et al., 2023). Within this framework, the classroom becomes a microcosm of society—one where learning occurs through observation, shared experience, and collective reflection. Consequently, integrating experiential and social learning principles into game-based education not only enhances academic understanding but also strengthens students' social awareness, ethical reasoning, and sense of belonging within their learning community.

The influence of game-based learning on students' focus and understanding of Sociology concepts

The use of game-based learning in sociology education at Cendekia Muda Universal Islamic School has significantly improved students' focus and understanding of sociological concepts. Unlike conventional instruction, which often relies heavily on lectures and memorisation, game-based learning actively invites students to discover meaning through play, competition, and collaboration. This active participation helps sustain attention, stimulate curiosity, and reduce cognitive fatigue, leading to more effective comprehension. During classroom observations, students who participated in game-based sessions demonstrated higher levels of concentration and enthusiasm. When using digital platforms such as *Kahoot*, *Wordwall*, *Gimkit*, *Nearpod*, and *ZEP Quiz*, Students appeared more attentive to each question and more eager to discuss their reasoning with peers. These digital learning platforms provided instant feedback, which helped them evaluate their understanding and identify misconceptions in real time. This interactive process encouraged students to focus not only on the game's outcome but also on the learning journey itself (Fitria, 2023; Ratna et al., 2023). Similar patterns were observed in offline activities such as *Sosipoly* and social role simulations, where students were required to make decisions, negotiate, and reflect on social structures and power relations. These activities enabled students to experience social interactions first-hand, thereby transforming abstract sociological concepts such as stratification, inequality, and social mobility into tangible experiences (Ambawani et al., 2024).

The experiential nature of these activities aligns with Kolb's (1984) Experiential Learning Theory, particularly the reflective observation stage, in which learners connect concrete experiences with theoretical frameworks, deepening their conceptual understanding. This finding is also consistent with Usman et al. (2024), who noted that experiential learning through game-based activities fosters deeper reflection and enhances students' analytical and empathy skills. The influence of game-based learning on student focus and attention can be further understood through the lens of Gamification Theory, which emphasises that games generate intrinsic motivation by combining challenge, feedback, and autonomy (Camacho-Sánchez et al., 2022; Khusna & Anjani, 2025). In this study, students maintained longer attention spans because game elements offered immediate rewards, visible progress indicators, and social reinforcement through peer recognition. As Yusri and Zainal (2025) argue, such mechanisms cultivate a sense of autonomy and relatedness, reducing distractions and sustaining engagement throughout the learning process. This intrinsic motivation allowed students to persist, collaborate, and internalise sociological lessons more effectively, transforming the classroom into a dynamic environment of curiosity and cooperative learning.



Picture 1. Students engaging in game-based learning activities to explore sociological concepts at Cendekia Muda Universal Islamic School (Source: Classroom documentation, 2025)

The increase in understanding was not limited to recalling facts but extended to students' ability to analyse social issues critically. Through games that incorporated current social phenomena, students learned to apply sociological concepts such as social interaction, norms, and institutions to real-life contexts. This outcome resonates with Vygotsky's (1978) concept of the Zone of Proximal Development (ZPD), in which learning occurs through social interaction and guided problem-solving. The teacher's role as a facilitator, observing, prompting reflection, and connecting gameplay outcomes to theory ensured that the learning process remained intellectually grounded. Qualitative reflections from students also indicated that game-based learning made sociology lessons more meaningful. Many students reported that the game activities helped them "visualize society" and "see theory come to life," thereby enhancing their ability to connect classroom discussions with real-world issues. This emotional and cognitive engagement confirms Bandura's (1977) view that learning is shaped through both direct experience and social modelling. When students observe cooperative behaviour, empathy, and fairness during gameplay, they also internalise these social values as part of their learning process. Game-based learning in sociology education has a notable impact on students' focus and understanding of sociological concepts. By merging the enjoyment of play with the rigour of academic inquiry, this approach supports deeper learning that is both engaging and transformative. The combination of digital and traditional games

provides a balanced environment where students not only remain attentive but also construct meaning through interaction, reflection, and collaboration.

Table 2. Observation Highlights about The Influence of Game-Based Learning on Focus and Sociological Understanding

Learning Aspect	Observation Results
Focus and Attention	Students were more attentive when engaging in game-based activities, particularly when using Kahoot and ZEP Quiz. The sense of challenge and instant feedback kept them alert and motivated throughout the session.
Active Participation	Most students participated voluntarily in answering questions, discussing answers, and helping peers during digital and traditional games.
Conceptual Understanding	Students demonstrated better comprehension of abstract sociological topics such as social stratification and inequality after role-playing and simulation games.
Motivation and Enjoyment	Learners expressed excitement and positive emotions during gameplay, which increased participation and reduced classroom anxiety.
Social Interaction and Reflection	Interaction between students during the Sosiopoly game led to meaningful discussions on fairness, privilege, and cooperation. Reflection sessions encouraged moral reasoning and empathy.

Challenges and implications of game-based learning implementation

Although game-based learning has proven effective in enhancing motivation, participation, and social value formation, its implementation in sociology also presents several challenges that must be critically examined. These challenges emerge not only from technical and pedagogical limitations but also from the contextual realities of social education in Indonesia. One of the primary challenges identified in this study is the uneven level of digital literacy among students and teachers. At Cendekia Muda Universal Islamic School, while most students adapt quickly to online platforms such as Kahoot, Quizizz, and Gimkit, a few struggle to access or use these tools effectively, especially when internet connectivity is unstable. The teacher must therefore allocate additional time to guide students through the digital setup before the learning objectives can be achieved. This challenge reflects what Prensky (2001) calls the digital divide between “digital natives” and “digital immigrants,” in which differences in technological familiarity affect the pace and quality of learning.

Furthermore, not all aspects of sociology learning can be effectively transformed into game-based formats. Specific topics such as social inequality, discrimination, and moral dilemmas require sensitive and reflective discussion that may lose depth when simplified into competitive or point-based activities. As Rahman (2022) noted in his research on gamification in social studies classrooms, the gamified approach tends to prioritise engagement over critical reflection when not carefully designed. This finding resonates with the classroom experience at Cendekia Muda Universal Islamic School, where teachers observed that students sometimes focused more on winning games than on understanding the underlying sociological concepts. Another significant challenge lies in time management and curriculum alignment. Game-based activities, particularly those involving group collaboration and post-game reflection, often require longer time allocations than traditional lectures. Teachers must balance achieving curriculum targets with sufficient space for meaningful interaction. Without careful planning, game sessions may become fragmented or fail to align with the intended learning outcomes. Despite these challenges, the implications of this study remain highly positive. The findings highlight the need

for strategic integration rather than substitution. Game-based learning should not entirely replace conventional models, but rather complement them to create a more balanced and holistic approach to sociology education. The teacher's role as a facilitator becomes even more essential in ensuring that games remain aligned with theoretical understanding and moral reflection.

Recent studies demonstrate that game-based learning (GBL) fosters multidimensional engagement that extends beyond entertainment. According to Ambawani et al. (2024), the use of gamified media in sociology classes increases students' curiosity and willingness to analyse social issues through role-playing and simulation. Likewise, Khusna and Anjani (2025) reported that integrating GBL models in social studies significantly enhanced students' critical inquiry, empathy, and collaborative learning. These findings reinforce the need to position game-based learning as a pedagogical strategy rather than a supplementary activity, emphasising purposeful reflection and discussion. Game-based learning encourages authentic collaboration, where students construct meaning collectively. As shown by Usman et al. (2024), collaborative games enable learners to share perspectives, question assumptions, and build collective interpretations of social realities. It aligns with Vygotsky's (1978) constructivist principles, which hold that knowledge develops through dialogue and interaction within the Zone of Proximal Development. In addition, recent research by Gravelcina and Daniela (2024) found that integrating social media-inspired game mechanics fosters stronger peer connections and enhances the emotional climate of learning, helping students engage more empathetically in discussions about social problems.

It echoes Prensky's (2001) early argument that games can be powerful tools for learning when they are designed with explicit educational purposes and reflective scaffolding, an idea now reaffirmed by modern analyses of digital gamification (Yusri & Zainal, 2025). Through guided debriefings after gameplay, teachers can bridge the gap between fun and reflection, helping students translate their gaming experiences into sociological understanding. This approach responds to Rahman's (2022) critique that many gamified learning environments lack critical depth and often prioritise competition over reflection. Beyond fostering engagement, implementing GBL in sociology classrooms has broader pedagogical implications. Teachers need to balance enjoyment with intellectual challenge by integrating reflective prompts and social analysis into game design. As Kumar and Hashim (2024) emphasise, well-structured gamification enhances learners' sense of autonomy and competence, provided it aligns with learning objectives and assessment criteria. Furthermore, Ratna et al. (2023) found that in post-pandemic learning contexts, gamified systems promote psychological resilience and peer collaboration skills essential for 21st-century education.



Diagram 4. Key Challenge about Pedagogical Implications

From a broader perspective, the implementation also invites educators to rethink the nature of classroom engagement. Engagement should be defined not merely as enjoyment or participation, but as critical involvement, in which students interact intellectually, emotionally, and socially with the material (Camacho-Sánchez et al., 2022). This perspective aligns with the evolving definition of student engagement in the digital era, where learning effectiveness is measured not only by performance outcomes but also by the depth of cognitive and affective engagement with learning activities (Fitria, 2023). Recent studies emphasise that game-based learning (GBL) supports higher-order thinking when coupled with reflective debriefing and guided discussion. For instance, Ambawani et al. (2024) found that integrating reflection stages after gamified activities in sociology classes improved students' analytical and empathetic reasoning about social inequality and justice. Similarly, Khusna and Anjani (2025) highlight that meaningful engagement occurs when gameplay shifts from competition to cooperative knowledge construction, allowing students to internalise sociological concepts through shared experiences and dialogue.

It echoes Prensky's (2001) early argument that games can be powerful tools for learning when designed with clear educational purposes and reflective elements, a claim now supported by contemporary evidence (Usman et al., 2024). By incorporating guided debriefings and discussion sessions after gameplay, teachers can help students translate their gaming experiences into sociological insights, addressing Rahman's (2022) concern about the lack of critical depth in gamified learning. Moreover, Yusri and Zainal (2025) argue that engagement should be viewed as a multidimensional construct that includes motivation, emotional connection, and social awareness, all of which are integral to the teaching of sociology.

In essence, the success of game-based learning depends on how well it is contextualised within the goals of social education. When games are used as catalysts for reflection rather than mere competition, they can transform the classroom into a participatory and ethical learning space (Gravelsina & Daniela, 2024). This transformation requires continuous teacher training, technological support, and a commitment to purposeful pedagogy, ensuring that digital tools and traditional games alike promote empathy, cooperation, and critical inquiry (Kumar & Hashim, 2024).

CONCLUSION

The results of this research show that game-based learning is an effective pedagogical strategy in strengthening the quality of sociology education at Cendekia Muda Universal Islamic School. The integration of both digital and traditional games, such as Kahoot, Quizizz, Wordwall, Nearpod, Gimkit, ZEP Quiz, and Sosiopoly, successfully created an active and reflective learning environment. Through these activities, students became more motivated, participated more frequently in discussions, and showed stronger collaboration during lessons. They also developed a deeper understanding of sociological concepts while internalising essential social values such as empathy, cooperation, and responsibility. From a theoretical perspective, the success of game-based learning can be explained by integrating several major learning theories. Knowledge is constructed through a continuous process of experience, reflection, conceptualisation, and application. This principle is clearly evident when students engage in social interactions during game-based activities and later reflect on their meanings. Learning also occurs most effectively through interaction within a space where collaboration and dialogue help learners construct new understanding. This perspective supports the way students exchange ideas and negotiate meaning during classroom games. Students learn behaviours, attitudes, and values through observation and modelling within a social environment. This process becomes visible as students observe their peers demonstrating teamwork, empathy, and respect during the games, gradually internalising these social values. Collectively, these perspectives clarify that play-based learning promotes not only cognitive growth but also emotional and social development, which are essential elements of sociology education.

Although game-based learning has shown positive outcomes, several challenges were identified during its implementation. The most common challenges include differences in digital literacy between students and teachers, limited access to technology, and time constraints in completing reflective discussions. Some students also tended to focus more on competition and scores rather than on conceptual understanding. These findings suggest that while gamified learning increases motivation, it requires careful design and guidance to ensure that reflection and conceptual depth remain central to the learning process. Based on these results, several recommendations can be proposed. Teachers are encouraged to apply game-based learning as a complementary model rather than a total replacement for conventional teaching. Combining games with guided discussion, reflective sessions, and theoretical analysis can maintain a balance between enjoyment and intellectual depth. Schools should provide continuous professional development and digital literacy training for teachers to enable them to design and manage educational games effectively. Curriculum developers also need to integrate game-based components that align with sociological competencies, particularly those that foster empathy, cooperation, and civic engagement.

For future researchers, it is recommended to employ mixed-method approaches that combine qualitative and quantitative data to measure not only behavioural engagement but also the long-term effects of game-based learning on critical thinking, moral reasoning, and social awareness. The implementation of game-based learning in the sociology subject at Cendekia Muda Universal Islamic School illustrates that meaningful education occurs when cognitive understanding is integrated with social and emotional values. Learning through games allows students to think, act, and reflect within an authentic social context. It transforms the classroom into a miniature version of society, where students experience the complexities of social life and develop empathy, cooperation, and responsibility. In this way, learning that engages both intellect and emotion can form not only knowledgeable individuals but also socially responsible citizens ready to contribute to a more inclusive and collaborative society.

BIBLIOGRAPHY

- Abidin, Y., & Rumansyah, R. (2021). Game-based learning strategy to improve student motivation and critical thinking. *Indonesian Journal of Education Studies*, 25(3), 189–200.
- Amalia, E., & Athiyyah, A. (2024). Penggunaan metode pembelajaran game based learning (GBL) untuk meningkatkan minat belajar siswa pada mata pelajaran Sejarah Kebudayaan Islam kelas VII D MTs Negeri 1 Ciamis. *Jurnal Kreativitas Mahasiswa*, 2(1), 190–201.
- Ambawani, C. S. L., Kusuma, T. M. M., Yunianto, A., Murtiyasa, B., Masduki, M., & Haryanto, S. (2024). Influence of gamification media on the learning activities of sociology in the high school of Surakarta. *JMKSP (Jurnal Manajemen, Kepemimpinan, dan Supervisi Pendidikan)*, 9(1), 558–572.
- Andika, N. L. P., Agustini, K., & Sudatha, I. G. W. (2025). Studi literatur review: Peran media game based learning terhadap pembelajaran. *Didaktika*, 14(1), 799–810.
- Anderson, C. A., & Rainie, L. (2020). *The future of digital learning: How gamification shapes education*. Washington, DC: Pew Research Center.
- Boyle, E. A., Hainey, T., Connolly, T. M., Gray, G., Earp, J., Ott, M., Lim, T., Ninaus, M., Ribeiro, C., & Pereira, J. (2016). An update to the systematic literature review of empirical evidence of the impacts and outcomes of computer games and serious games. *Computers & Education*, 94, 178–192.
- Camacho-Sánchez, R., Rillo-Albert, A., & Lavega-Burgués, P. (2022). Gamified digital game-based learning as a pedagogical strategy: Student academic performance and motivation. *Applied Sciences*, 12(21), 11214.

- De Carvalho, C. V., & Coelho, A. (2022). Game-based learning, gamification in education and serious games. *Computers, 11*(3), 36.
- Fadli, M. R. (2021). The use of educational games to contextualize sociological theories in senior high school learning. *Journal of Social Education Research, 5*(2), 134–145.
- Fitria, T. N. (2023). The impact of gamification on students' motivation: A systematic literature review. *LingTera, 9*(2), 47–61.
- Gee, J. P. (2007). *What video games have to teach us about learning and literacy* (2nd ed.). New York, NY: Palgrave Macmillan.
- Gravelsina, E., & Daniela, L. (2024). From Facebook to classroom: A systematic analysis of educational games designed by educators. *International Journal of Learning, Teaching and Educational Research*.
- Hudaya, A., & Parlina, S. (2025). Game-based learning platform untuk pendidikan hak asasi manusia: Pelajaran dari Undertale. Dalam L. Seftriyana, R. Apriliyani, A. Mentari, S. Komariah, N. Thambu, Supriyono, A. Mahpudz, D. Tricahyono, Susi, I. S. Utami, Akadun, Wilodati, W. Noe, S. Dharma, A. F. Bunta, I. Wibowo, Syaifullah, A. Hudaya, S. Parlina, A. Supriatna, I. I. Megasari, R. Fitria, Warlim, R. Sartika, T. Septiana, M. Permatasari, E. Risqiana, A. Kuntoro, G. H. Wiratomo, A. Basit, K. Komalasari, C. Darmawan, Suwatno, R. Erlande, I. S. Masyitoh, T. A. Aziz, A. Aba, E. Komara, Y. Purwanto, P. Noerhatini, M. Taufik, S. D. Haq, D. M. Nugraha, D. Z. Tarsidi, K. Suryadi, Winarno, D. Kania, D. Saepudin, D. A. Ruchliyadi, R. Adawiah, G. Dewanto, E. K. Sari, I. I. Megasari, E. Danial, K. Suryadi, I. Irayanti, D. Wahidin, H. A. C. Iskandar, D. Budimansyah, D. Sundawa, & Setiawan (Eds.), *Pendidikan kewarganegaraan futuristik: Bagaimana meneguhkan peran Pkn dalam merespon masa depan?* CV. Jendela Hasanah. <https://jendelaph73.com/store/pendidikan-kewarganegaraan-futuristik-bagaimana-meneguhkan-peran-pkn-dalam-merespon-masa-depan/>
- Hudaya, A., & Salsabila, N. (2024). Designing a Gamified Learning Tool using Visual Basic: a Visual Novel Approach. *Motekar: Journal of Education and Science, 1*(1), 1-21.
- Kalashnikova, L. V., Hrabovets, I. V., Chernous, L. S., Chorna, V. A., & Kiv, A. E. (2022). Gamification as a trend in organizing professional education of sociologists in the context of distance learning: Analysis of practices. *Educational Technology Quarterly, 2022*(2), 115–128.
- Khusfitriani, E. (2022). Game based learning (GBL) dalam meningkatkan kreativitas belajar siswa kelas 4 SD N Slembaran. *Social, Humanities, and Education Studies, 5*, 1444–1449.
- Kobatubun, R. A. (2023). Evaluating the effectiveness of game-based learning for active and character-oriented education in Indonesian high schools. *International Journal of Instructional Technology and Educational Studies, 6*(1), 45–58.
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice-Hall.
- Kemendikbudristek. (2022). *Panduan implementasi Kurikulum Merdeka: Pembelajaran berbasis proyek dan inovasi digital*. Jakarta: Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi Republik Indonesia.
- Khusna, N. I., & Anjani, S. Y. (2025). Spurring student activity through action game-based learning (GBL) method in sociology learning. *Entita: Jurnal Pendidikan Ilmu Pengetahuan Sosial dan Ilmu-Ilmu Sosial*.
- Krouska, A., Troussas, C., & Sgouropoulou, C. (2021). Mobile game-based learning as a solution in COVID-

19 era: Modeling the pedagogical affordance and student interactions. *Education and Information Technologies*, 27(1), 229–241.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Parlina, S., & Hudaya, A. (2024). Integrating AI: Societal and Educational Transformations among Muslim Youth. *Mahajana: Journal of Social Sciences and Humanities*, 1(1), 1-12.

Prensky, M. (2001). *Digital game-based learning*. New York, NY: McGraw-Hill.

Rahman, F. (2022). The effectiveness and limitations of gamification in social education. *Journal of Educational Media and Learning Studies*, 14(2), 45–58.

Sanjaya, W. (2020). *Strategi pembelajaran berorientasi standar proses pendidikan*. Jakarta: Kencana Prenada Media.

Sitzmann, T. (2011). A meta-analytic examination of the instructional effectiveness of computer-based simulation games. *Personnel Psychology*, 64(2), 489–528.

Su, C. H., & Cheng, C. H. (2015). A mobile gamification learning system for improving learning motivation and achievement. *Computers & Education*, 88, 1–12.

Sujarwo, F., Sariyatun, & Rejekiningsih, T. (2023). Interactive mobile learning-based gamification to improve the collaboration skills of 11th grade students in high school. *Journal of Education Technology*, 7(3).