

DOI: <https://doi.org/10.21009/ijlecr.v10i2.45173>

E-ISSN: 2461-131x

P-ISSN: 2406-8586

Received: 23 May 2024
Revised: 17 July 2024
Accepted: 14 November 2024
Published: 16 December 2024

Generating Interest in Literacy among Elementary School Students through Gamification Technology

Yulian Dinihari

(Corresponding Author)

Universitas Indraprasta PGRI, Indonesia

Email: yulian.dinihari@unindra.ac.id

Zainal Rafli

Universitas Negeri Jakarta, Indonesia

Email: zainal.rafli@unj.ac.id

Endry Boeriswati

Universitas Negeri Jakarta, Indonesia

Email: endry.boeriswati@unj.ac.id

Fahmi Hidayat

Universitas Indraprasta PGRI, Indonesia

Email: fahmi.hidayat@unindra.ac.id

ABSTRACT

This research focuses on grade 5 elementary schools with the main aim of increasing students' interest in literacy through the application of gamification technology concepts. The implementation method is descriptive qualitative: 1) identifying the needs and preferences of students in elementary schools through surveys and observations. Based on these findings, a gamification platform was designed that combines game elements with literacy material according to the curriculum. 2) Integrating gamification into learning activities for grade 5 elementary school students. The implementation process is carried out collaboratively involving teachers, students and parents. The research was conducted at SD Negeri Pasar Baru 03, Central Jakarta. The results of the research can provide valuable input for improving teaching methods in elementary schools, especially literacy, and provide a basis for similar approaches in other schools. This research not only creates positive changes in elementary school students' literacy interest, but also contributes to the literacy of society in general by fostering a culture of reading and critical thinking from a young age. Furthermore, the integration of gamification in literacy education could serve as a model for enhancing other educational subjects, promoting a more engaging and effective learning environment across different disciplines.

Keywords: Literacy, Gamification, Pedagogy, Education Technology

INTRODUCTION

Literacy is currently in high demand among news readers, articles and literacy activists, because the PISA 2022 results were released on December 5 2023. According to the Program for International Student Assessment (PISA), Indonesia's reading literacy score will fall in 2022. This assessment was carried out by the Organization for Economic Cooperation and

Development (OECD). In 2022 Indonesia's PISA reading literacy score will reach 359 points, a decrease of 12 points compared to 2018 (Alfin, 2019). In Indonesia, this program involves a sample of 14,340 students aged 15 years who were randomly selected from 413 schools/madrasahs. The sample is considered to represent the entire demographics of Indonesia, including disadvantaged areas. This is an urgency for academics to always concentrate on improving student literacy.

In the context of Indonesia's independent curriculum, literacy is not just about reading skills but encompasses broader language and cognitive abilities, including listening, reading, viewing, speaking, and writing (Mustadi et al., 2021). Literacy as a goal in language learning aims to develop these integrated skills, as emphasized in various educational theories and research. By mastering these skills, students are better prepared to think critically, communicate effectively, and engage with diverse forms of information. Research supports the importance of literacy as a fundamental component of learning, as it enhances students' abilities to process and analyze complex ideas, ultimately improving academic performance across disciplines. Therefore, improving literacy is not just an academic task but a crucial element in preparing students for future challenges in a globalized world.

Literacy as a basic skill in reading, writing and understanding information, plays a central role in educational development, especially at the elementary level. However, we cannot close our eyes to the challenges faced by elementary school students in developing an interest in literacy. These challenges can hinder their learning potential and, ultimately, affect the formation of the foundation of intelligence throughout life. Seeing the complexity of this problem, research and innovation in the field of education are becoming increasingly urgent. Additionally, balancing school and community goals is also a significant challenge.

In an effort to strengthen literacy interest, several crucial challenges arise that require in-depth attention. Study A. Vasalou et al, highlighting that the development of technology users' intrinsic motivation is a key aspect (Vasalou et al., 2015). The results demonstrate the need to incorporate the concept of privacy in efforts to increase user engagement with information literacy. According to the research results of Hope Longwell-Grice and Ellen McIntyre, the success of a literacy project depends on the ability to design and implement a program that achieves alignment between school goals and community expectations (Longwell-Grice & McIntyre, 2006). Limited professional autonomy, conflict between educational theory and classroom practice, and lack of social and institutional support for teacher professional development initiatives are other obstacles (Syed, 2008). Additionally, challenges include workplace intensification, implementation failures, and differences between classes (Johnson & Scull, 1999), creates complexity in efforts to foster literacy interest.

Learners' ability to construct knowledge from multiple points of view is also a significant challenge. S. Barzilai and Y. Eshet-Alkalai found that evaluativism played an important role in positively predicting viewpoint understanding, indicating the need to focus on developing knowledge construction abilities (Barzilai & Eshet-Alkalai, 2015). Literacy challenges facing EFL (English as a Foreign Language) teachers include student interest, technical challenges, lack of teacher understanding, and time management, Dewi (Dewi, 2022) emphasized that a holistic solution is needed to address the various aspects that influence literacy interest among EFL students and teachers.

Therefore, the challenges in fostering interest in literacy involve aspects of technology, relationships between schools and communities, teacher professional autonomy, workplace complexity, development of knowledge construction abilities. To overcome these challenges, steps that need to be taken include framing literacy by including the concept of technology to increase the involvement of students, teachers and parents. This, helps professional teachers by providing support for their development and students' literacy interests. This research was conducted in a collaborative spirit, involving teachers, students and parents, and was

implemented at SD Negeri Pasar Baru 03, Central Jakarta. In this community service, the aim is to make a real contribution to increasing literacy, open up opportunities for similar approaches in the future, and encourage reflection on more effective and inclusive teaching methods by introducing gamification to students.

Gamification in learning has shown a positive impact in various aspects. Research shows that gamification can improve interactions between teachers and students as well as between students (Dewi et al., 2022). It is considered a valuable tool to increase student engagement and interactivity in the learning system (Bouchrika et al., 2021). Gamification tailored to learning objectives can increase student motivation and engagement (Rutledge et al., 2018) and have a positive impact on student motivation in online learning. The research results also support that educational gamification has the potential to influence students' academic achievement, commitment and motivation (Barzoki et al., 2015 and Manzano-León et al., 2021).

However, although gamification is increasingly accepted as a useful learning tool, some challenges and benefits need to be considered in implementing it in online education (Lampropoulos et al., 2022). Research also shows that gamification is an effective method of instruction, although the factors that contribute to the success of gamification are still not fully understood (Sailer & Homner, 2020). Additionally, there are indications that evidence supporting the long-term benefits of gamification in educational contexts is lacking (Dichev & Dicheva, 2017). The application of gamification to elementary school (SD) students has significant relevance in increasing student interest and involvement in the teaching and learning process. By combining game elements in a learning context, gamification is able to create interesting and motivating learning experiences.

Elementary students, who generally have different attention levels, can be better accommodated through literacy gamification. This is because literacy gamification involves students in challenges, prizes, and competitive or cooperative interactions that can trigger intrinsic motivation, which in turn can increase their interest in literacy. The competitive nature and achievements of gamification also create a fun learning atmosphere, reduce boredom, and change the perception of literacy activities into an enjoyable challenge. In addition, gamification aligns learning in a way that is more in line with the understanding of the digital world that is familiar to elementary school students.

Several studies on gamification have demonstrated its effectiveness in improving learning outcomes and increasing student engagement. For example, Korosidou et al. (2021) explored gamification in enhancing student motivation in language learning (Korosidou & Bratitsis, 2021), while Lutrario et al. (2021) focused on the role of gamification in fostering collaborative learning in primary education (Lutrario et al., 2021). Marsano & Bocci (2020) and Silva et al. (2020) examined the impact of gamification on critical thinking skills and learning retention, particularly in digital environments (Marsano & Bocci, 2020). Meanwhile, research by Vagele-Kricina (2018) and Wook et al. (2021) discussed gamification in the context of creating more interactive and enjoyable learning processes (Wook et al., 2021 and Vagele-Kricina, 2018). Although these studies show the positive effects of gamification, most have been limited to exploring its impact on general learning outcomes, motivation, or specific subject areas, without a particular focus on literacy in the context of elementary education.

The current research will provide novelty by specifically integrating literacy gamification into elementary school literacy programs, aiming to directly address students' literacy skills while taking into account their developmental needs and digital familiarity. Unlike previous studies that have focused on more general or secondary-level applications of gamification, this research will emphasize the unique challenges and opportunities in elementary school literacy education, contributing a fresh perspective on how gamification can reshape early literacy development.

In a literacy context, this approach can create a stronger connection between lesson material and students' daily lives, increase information absorption, and stimulate curiosity about the world of words and knowledge. Thus, the use of gamification not only provides a creative solution to increase elementary school students' literacy interest, but also creates a learning environment that is fun and relevant for their literacy development. Therefore, researchers applied gamification to 5th grade students at Pasar Baru Elementary School, Central Jakarta to increase students' literacy interest through a literacy gamification Android application.

The research problem formulation is centered around how the integration of gamification into literacy instruction can effectively improve students' literacy interest and skills. Specifically, the research seeks to address the challenge of low literacy engagement among elementary school students and how gamification can act as a potential solution. The objectives of the research are to develop a gamified literacy application tailored for 5th-grade students and to measure its impact on improving students' literacy interest and motivation.

The benefits of this research include providing teachers and educators with innovative teaching tools that utilize digital technology and gamification to enhance literacy learning. Additionally, the study aims to contribute to the field of education by offering a practical solution for addressing literacy challenges in elementary schools, which can be adopted more broadly in other educational settings.

METHOD

This study employs a qualitative descriptive research method with a Research and Development (R&D) approach. The purpose of this method is to describe and develop literacy teaching materials based on gamification pedagogy, as well as to assess their effectiveness in improving literacy interest among elementary school students. The research was conducted on December 10, 2023 in the East Jakarta State Middle School Hall, as SDN Pasar Baru 03 is currently under renovation. The research participants were teachers and 5th-grade students from SD Negeri Pasar Baru 03, Central Jakarta. The study involved a trial with 60 students and three 5th-grade teachers. During the study, students were asked to bring Android phones, and the research began with an explanation of literacy and gamification, followed by downloading the GamPe (Gamification Pedagogy) Android application for use in the study.

Data were collected through observation, interviews, and questionnaires. Observation was used to monitor students' engagement and reactions during the use of the GamPe application, while interviews were conducted with teachers to gain insights into their perceptions of the app's effectiveness. A questionnaire was distributed to both teachers and students to gather feedback on the usefulness and practicality of the gamified literacy teaching materials. The instruments used in this study include questionnaires for teachers and students, focusing on the usability and effectiveness of the teaching materials. Additionally, an observation sheet was used to record student engagement, while interview guides were prepared to structure discussions with teachers about their experiences with the application.

The data were analyzed using qualitative descriptive analysis. Data from observations and interviews were categorized based on emerging themes related to student engagement, motivation, and literacy interest. The questionnaire responses were analyzed descriptively to determine trends and patterns in the feedback provided by teachers and students. To ensure the validity of the data, triangulation was employed, which involved cross-checking data from different sources, including observations, interviews, and questionnaires. This approach helped ensure the credibility and reliability of the findings. In addition, member checking was conducted by allowing participants to review and confirm the accuracy of the data interpretations.

RESULTS AND DISCUSSION

Results

In the ever-growing digital era, innovation in learning methods is becoming increasingly important, especially in supporting increased student literacy. This community service aims to implement technology in education, particularly through the use of literacy gamification, designed to enrich students' learning experiences. It is hoped that this literacy gamification will not only improve students' literacy skills but also trigger motivation and excitement in the learning process. By collecting response data from participating students, we can identify the extent to which literacy gamification is accepted in the student learning context.

Based on the research results from the instruments used, it was found that the literacy gamification program had a positive impact on students' literacy interests. The data collected from the 30 students participating in the program show a significant increase in their engagement with various forms of literacy. Specifically, 85% of the students showed a high level of interest in listening literacy, particularly when engaging with audio-based content. Reading literacy also saw a strong response, with 78% of students indicating an increased interest in reading activities. Additionally, 70% of students expressed an appreciation for viewing literacy, engaging more with visual materials such as images and videos. Speaking literacy saw moderate interest, with 65% of students enjoying activities related to discussions and verbal communication. Lastly, writing literacy garnered the most notable improvement, with 90% of students demonstrating increased enthusiasm for writing tasks, both in creative writing and reflective activities.

These findings are not only useful for assessing the success of current implementation, but also for developing future educational strategies and innovations. The following is a detailed description of the results obtained from the survey conducted. The results of the questionnaire will show the level of acceptance and areas that require improvement to ensure that every student can gain maximum benefit from the innovative learning resource, namely literacy gamification (Dinihari et al., 2024).

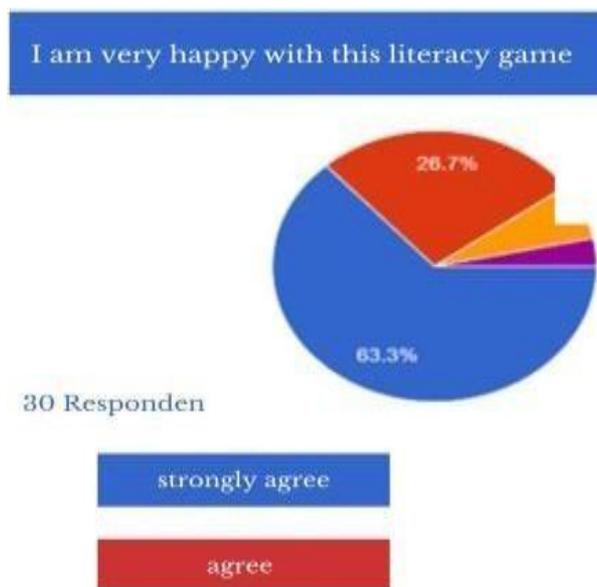


Figure 1. Response to Using Literacy Gamification

Student results regarding the introduction of literacy gamification from 30 students, as many as 63.3% liked literacy gamification (see Figure 1). The majority of respondents (63.3%) indicated 'Strongly Agree' to the statement about their liking for literacy games, indicating the

high success of these games in attracting students' interest. These data suggest that literacy games introduced in community service programs are well received and enjoy high levels of approval. These results mean that the use of literacy gamification has the potential to be an effective tool for increasing student literacy. However, it is important to conduct further evaluation of specific aspects of gamification that have received less than positive responses to optimize the learning experience of all students.

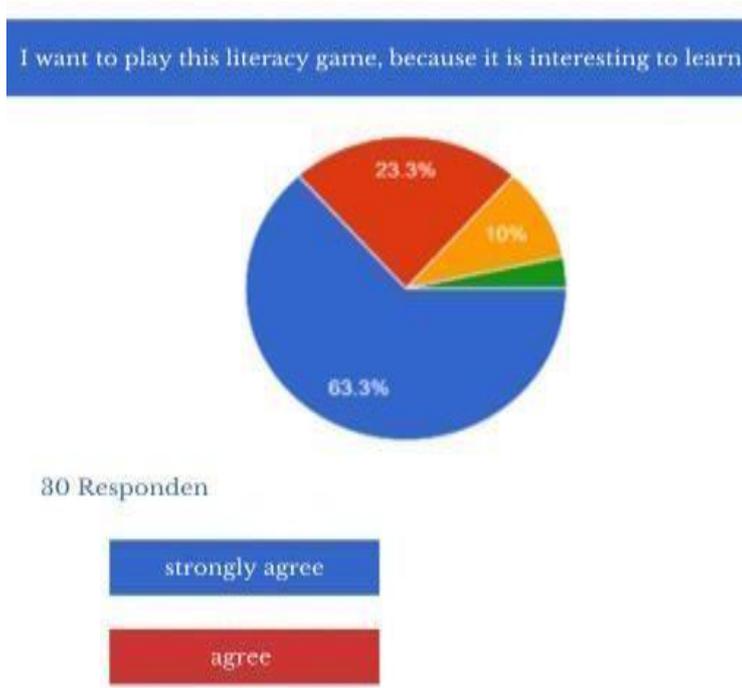


Figure 2. Response to Using Literacy Gamification to Increase Students' Literacy Interest

The majority of respondents, accounting for 63.3%, stated 'Strongly Agree' to the statement, indicating high acceptance of literacy gamification as a method of improving literacy (see Figure 2). In research aimed at improving student literacy, the use of literacy gamification can be considered a successful strategy based on the positive response from the majority of participants. Positive recognition from students can be interpreted as an indication that this literacy game is effective in motivating students to engage in literacy learning. However, there needs to be further research to identify the causes of minority resistance and ways to overcome this.



Figure 3. Photo of Activity

Photos of product trial activities reflect the successful implementation of the gamification concept in increasing literacy interest among 5th grade elementary school (SD) students. In these photos, the students' expressions of enthusiasm and joy can be clearly seen when they are involved in literacy activities combined with elements of play. Students look focused and enthusiastic when interacting with gamification, creating a dynamic and fun learning atmosphere. Teachers also appear to play an active role in supporting and guiding students during literacy gamification introduction activities. From these photos, it appears that the teacher succeeded in creating a collaborative learning environment, where positive interactions between teachers and students can occur.

This reflects success in achieving the goal of increasing literacy interest through implementing literacy gamification strategies. Overall, through photos of community, it can be seen not only the success of implementing gamification in increasing students' interest in literacy, but also the creation of a positive and collaborative atmosphere between teachers, students and parents in supporting literacy in the school and home environment. This success is an important milestone, providing hope and inspiration for similar approaches in other school contexts. This is in accordance with research conducted by Sulistio. Research shows the importance of a deep understanding of language assessment literacy for prospective teachers to develop assessment skills that are effective and relevant to classroom practice (Sulistio, 2023).

Discussion

At the discussion stage, let's explore in more depth the results and impact of implementing literacy gamification in increasing elementary school students' interest in literacy. The research findings indicate that literacy gamification successfully increases students' intrinsic motivation and engagement in various literacy activities, such as reading, writing, and listening. These results are consistent with studies by Korosidou et al. (2021) and

Yiing & Mahamod (2021), which demonstrate that gamification fosters student motivation and engagement by introducing elements of play and challenge into the learning process (Korosidou & Bratitsis, 2021; Yiing & Mahamod, 2021). However, this study provides additional novelty by focusing on the integration of literacy gamification specifically tailored for elementary school students in Indonesia, thereby addressing cultural and contextual factors not explored in previous studies.

Compared to research by Oliva et al. (2019), which emphasizes the role of gamification in improving cognitive skills, this study highlights the social and collaborative aspects, such as increased interaction between students, teachers, and parents, which were not deeply discussed in earlier research (Oliva et al., 2019). Furthermore, earlier studies like Marsano & Bocci (2020) identify gamification as a tool for enhancing student interest in isolated subjects (Marsano & Bocci, 2020). However, this research expands its application to a holistic literacy context, showing its broad impact on multiple literacy dimensions—reading, writing, listening, and speaking.

In addressing the issue of low student interest in literacy, Self-Determination Theory (Deci & Ryan, 1985) provides a relevant framework (Deci & Ryan, 1985). The theory suggests that students are more motivated when they experience autonomy, competence, and relatedness in their learning. This study's use of literacy gamification aligns with these principles by offering students autonomy in choosing activities within the app, fostering a sense of competence through achievements and rewards, and encouraging relatedness through collaborative tasks. As a solution to low literacy interest, educators should consider implementing gamification strategies that align with these motivational principles, as this research demonstrates their potential to significantly enhance student engagement in literacy activities. The same as research conducted by Dinhari, et al (2020) exploring the preferences of elementary school teachers and students regarding the use of electronic technology in language literacy learning (Dinhari et al., 2020). The results show that the integration of technology in literacy learning can increase student motivation and engagement, as well as make it easier for teachers to deliver interactive and interesting literacy material.

Implications of Using Gamification in Increasing Literacy

The application of gamification to elementary school (SD) students has significant relevance in increasing student interest and involvement in the teaching and learning process. By combining game elements in a learning context, literacy gamification is able to create interesting and motivating learning experiences. Elementary school students, who generally have different levels of attention, can be better accommodated through this literacy gamification. Engaging students in competitive or cooperative challenges, rewards, and interactions can trigger intrinsic motivation, which in turn increases their interest in literacy. The competitive nature and achievements of gamification also create a fun learning atmosphere, reduce boredom, and change the perception of literacy activities into an enjoyable challenge.

When comparing these findings with previous research, such as that by Yiing & Mahamod (2021), which shows that gamification can enhance motivation in language learning, this study further emphasizes the impact of gamification on literacy, particularly in younger students. Oliva et al. (2019) also found that gamification helps improve cognitive engagement, but this study provides a novelty by demonstrating its application in elementary schools to address different literacy aspects—reading, writing, listening, and speaking. This makes gamification an effective and versatile tool in increasing literacy interest across multiple dimensions.

In line with Self-Determination Theory (Deci & Ryan, 1985), which posits that intrinsic motivation is fostered through autonomy, competence, and relatedness, gamification aligns

with these needs by offering autonomy in task selection, competence through goal achievement, and relatedness through collaborative learning experiences. To address low literacy interest, one solution drawn from this theory is to incorporate gamification into literacy learning, as it has been proven to meet these basic psychological needs, resulting in higher student motivation and engagement. Vygotsky's (1978) social development theory also supports this approach by emphasizing the importance of social interaction in learning. The gamification process allows for meaningful collaboration between students, which can further drive their engagement in literacy activities.

In summary, by integrating game mechanics into literacy learning, this research offers an innovative and effective method to increase students' literacy interest, aligning with and extending existing theories and research. Thus, educators can implement similar strategies to solve the problem of low literacy interest among students, providing them with a learning experience that is both motivating and enjoyable.

After applying the gamification concept to 5th grade elementary school (SD) students, the results reflected a positive increase in their literacy interest. Through identifying student needs and preferences, previously conducted surveys and observations yielded an in-depth understanding of the factors that influence literacy interest at this level. By designing literacy gamification that combines game elements with literacy materials according to the curriculum, students are involved in interactive and fun learning experiences. In the evaluation after implementation, a significant increase in student participation in literacy activities was seen. Students are more enthusiastic about taking part in literacy challenges, such as reading and writing, because there are game elements and reward systems integrated into learning.

This positive response is not only reflected in the survey results, but also in daily interactions in the classroom, where students are increasingly active, sharing ideas, and showing a desire to engage in literacy activities. Apart from that, collaboration between teachers, students and parents is also the key to success. Parental support in encouraging literacy interest at home, in line with what is learned at school, strengthens the positive impact of gamification on students' literacy interest. These results provide concrete evidence that the application of gamification concepts not only creates positive changes in the literacy interests of 5th grade elementary school students, but also builds the basis for similar approaches that can be adopted in other schools.

Similar Applications in Other Schools

In considering the potential for expanding the use of gamification to increase interest in literacy, this discussion also extends to the possibility of similar applications in other schools. The innovative steps successfully implemented at SD Negeri Pasar Baru 03, Central Jakarta, provide inspiration and a basis for considering similar strategies in various educational contexts. For example, the concept of identifying student needs and preferences through surveys and observations, as used in this study, aligns with Lutrario et al. (2021), who emphasized the importance of understanding learner profiles to create personalized learning experiences that drive student engagement.

In comparison with existing research, Korosidou et al. (2021) highlighted that gamification increases both motivation and retention in learning environments, particularly in digital contexts. This study contributes a new dimension by demonstrating how gamification can be adapted to local school contexts, involving not only students but also the collaborative engagement of teachers and parents. This integrative approach aligns with Vygotsky's (1978) social constructivist theory, which emphasizes the importance of social interaction in cognitive development. By involving the broader school community, literacy activities become more meaningful and embedded in the students' daily lives.

Moreover, the inclusion of gamification in literacy activities, as linked to the curriculum, reflects the ideas from Self-Determination Theory (Deci & Ryan, 1985), where student autonomy and choice are central to fostering intrinsic motivation. The novelty of this study lies in its ability to bridge theoretical concepts with practical applications, showing that gamified learning, when adapted to specific student needs and school cultures, can significantly increase literacy interest. By engaging students through challenges, rewards, and collaborative tasks, schools can address the issue of low literacy interest that has been identified in various studies. One key solution from these findings is the importance of ensuring that literacy activities are flexible and adaptable to different educational contexts. As suggested by Silva et al. (2020), gamification must remain dynamic to respond to the varying interests and technological competencies of students. Schools looking to replicate this approach can tailor the gamified learning content to the unique needs of their students, while also fostering sustained involvement from teachers and parents to create a holistic learning environment that encourages literacy growth. Thus, the successful implementation of gamification at SD Negeri Pasar Baru 03 provides a valuable model for other schools, showing how theory-based strategies can lead to practical outcomes. It also opens the door for future research and collaboration between schools nationwide to further explore and refine gamified literacy learning approaches.

CONCLUSION

In considering the potential for expanding the use of gamification to increase interest in literacy, this discussion also extends to the possibility of similar applications in other schools. The innovative steps successfully implemented at SD Negeri Pasar Baru 03, Central Jakarta, provide inspiration and a basis for considering similar strategies in various educational contexts. For example, the concept of identifying student needs and preferences through surveys and observations, as used in this study, aligns with Lutrario et al. (2021), who emphasized the importance of understanding learner profiles to create personalized learning experiences that drive student engagement (Lutrario et al., 2021).

The research shows that gamification can effectively address various forms of literacy interest among students, including listening, reading, viewing, speaking, and writing. Through gamified activities, students engage in interactive tasks that cater to these different literacy skills. For instance, gamified reading challenges can enhance reading comprehension, while interactive speaking tasks can improve verbal communication skills. This approach allows students to experience a more holistic development of their literacy abilities, catering to diverse learning preferences and needs.

In comparison with existing research, Korosidou et al. (2021) highlighted that gamification increases both motivation and retention in learning environments, particularly in digital contexts. This study contributes a new dimension by demonstrating how gamification can be adapted to local school contexts, involving not only students but also the collaborative engagement of teachers and parents. This integrative approach aligns with Vygotsky's (1978) social constructivist theory, which emphasizes the importance of social interaction in cognitive development. By involving the broader school community, literacy activities become more meaningful and embedded in the students' daily lives (Moore & Piaget, 1971).

Moreover, the inclusion of gamification in literacy activities, as linked to the curriculum, reflects the ideas from the Self-Determination Theory (Deci & Ryan, 1985), where student autonomy and choice are central to fostering intrinsic motivation. The novelty of this study lies in its ability to bridge theoretical concepts with practical applications, showing that gamified learning, when adapted to specific student needs and school cultures, can significantly increase literacy interest. By engaging students through challenges, rewards, and collaborative tasks, gamification addresses the issue of low literacy interest identified in various studies, providing students with a more engaging and interactive learning experience.

One key advantage of gamification is its ability to create a dynamic and motivating learning environment. According to Silva et al. (2020), gamification must remain flexible and responsive to students' interests and technological competencies. By incorporating elements such as points, badges, and leaderboards, gamification not only makes learning more enjoyable but also provides immediate feedback and rewards, which can sustain student motivation. Schools looking to replicate this approach can tailor gamified learning content to meet the unique needs of their students while fostering sustained involvement from teachers and parents. This creates a comprehensive learning environment that promotes literacy growth through both intrinsic motivation and active engagement.

Thus, the successful implementation of gamification at SD Negeri Pasar Baru 03 provides a valuable model for other schools, showing how theory-based strategies can lead to practical outcomes. It also opens the door for future research and collaboration between schools nationwide to further explore and refine gamified literacy learning approaches.

REFERENCES

- Alfin, J. (2019). Pengembangan materi sejarah kebudayaan Islam sebagai bahan ajar literasi membaca di Madrasah Ibtidaiyah. *Jurnal Pendidikan Agama Islam (Journal of Islamic Education Studies)*, 7(1). <https://doi.org/10.15642/jpai.2019.7.1.71-88>
- Barzilai, S., & Eshet-Alkalai, Y. (2015). The role of epistemic perspectives in comprehension of multiple author viewpoints. *Learning and Instruction*, 36. <https://doi.org/10.1016/j.learninstruc.2014.12.003>
- Barzoki, M. H., Kontula, O., Mokhtariaraghi, H., Mahboubishariatpanahi, N., Depper, A., Howe, P. D., Perpiñá PhD, C., Roncero PhD, M., Natenshon, A. H., Kehler PHD, M., Atkinson PHD, M., Chrisler, J. C., Digiammarino, A., Flynn, M. A., Park, S. S. S., Morin, D. T., Stana, A., Rafique, R., Hunt, N., ... Valadez Martinez, L. J. (2015). Book reviews. *Journal of Child and Family Studies*, 45(2).
- Bouchrika, I., Harrati, N., Wanick, V., & Wills, G. (2021). Exploring the impact of gamification on student engagement and involvement with e-learning systems. *Interactive Learning Environments*, 29(8). <https://doi.org/10.1080/10494820.2019.1623267>
- Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: Self-determination in personality. *Journal of Research in Personality*, 19(2). [https://doi.org/10.1016/0092-6566\(85\)90023-6](https://doi.org/10.1016/0092-6566(85)90023-6)
- Dewi, M. S. (2022). Strategi media monitoring pada pemberitaan covid-19 di media daring. *MEDIALOG: Jurnal Ilmu Komunikasi*, 5(1). <https://doi.org/10.35326/medialog.v5i1.1226>
- Dichev, C., & Dicheva, D. (2017). Gamifying education: What is known, what is believed and what remains uncertain: A critical review. In *International Journal of Educational Technology in Higher Education* (Vol. 14, Issue 1). <https://doi.org/10.1186/s41239-017-0042-5>
- Dinihari, Y., Nazelliana, D., & Purwanti, P. (2020). Pemanfaatan aplikasi java untuk meningkatkan penguasaan kosa kata anak usia dini. *Lingua Rima: Jurnal Pendidikan Bahasa Dan Sastra Indonesia*, 9(1). <https://doi.org/10.31000/lgrm.v9i1.2396>
- Johnson, N. J., & Scull, J. (1999). The power of professional learning teams. *Improving Schools*, 2(1). <https://doi.org/10.1177/136548029900200115>
- Korosidou, E., & Bratitsis, T. (2021). *Gamifying early foreign language learning*. https://doi.org/10.1007/978-3-030-49932-7_68
- Lampropoulos, G., Keramopoulos, E., Diamantaras, K., & ... (2022). Augmented reality and gamification in education: A systematic literature review of research, applications, and empirical studies. *Applied Sciences*. <https://doi.org/10.3390/app12136809>
- Longwell-Grice, H., & McIntyre, E. (2006). Addressing goals of school and community: Lessons from a family literacy program. *The School Community Journal*, 16(2).

- Lutrario, F., Movileanu, D., & Antomarini, B. (2021). *Gioco e filosofia. Gioco e Filosofia*.
<https://www.torrossa.com/it/resources/an/4909442>
- Manzano-León, A., Camacho-Lazarraga, P., Guerrero, M. A., & ... (2021). Between level up and game over: A systematic literature review of gamification in education. *Sustainability*.
<https://www.mdpi.com/1004228>
- Marsano, M., & Bocci, F. (2020). Promuovere le strategie di apprendimento degli studenti universitari mediante un modello ludiforme di supporto alla didattica. Uno studio pilota. 26 A game In ... (a cura di), *John Dewey e la pedagogia* books.google.com.
https://books.google.com/books?hl=en&lr=&id=9VUNEAAAQBAJ&oi=fnd&pg=PA77&dq=gamifikasi+pedagogis&ots=wd5VdxHog-&sig=2pNwgMk8KDdpWmhyrryHQkD_rp8
- Moore, G. T., & Piaget, J. (1971). Science of education and the psychology of the child. *Journal of Architectural Education (1947-1974)*, 25(4). <https://doi.org/10.2307/1423801>
- Mustadi, A., Dwidarti, F., Ariestina, H., Elitasari, H. T., & ... (2021). *Bahasa dan sastra Indonesia sd berorientasi kurikulum merdeka*. books.google.com.
https://books.google.com/books?hl=en&lr=&id=BtKREAAAQBAJ&oi=fnd&pg=PA94&dq=pembelajaran+berdiferensiasi&ots=nEaQYVGZoU&sig=ZGPAbZJyqrEJT0a1WkA4jj-IN_I
- Oliva, J. C., Oliveira, M. de, Silva, I. G. O. da, & ... (2019). Gamification of psychological tests for literacy and spacial skills of children with autism and down syndrome. *Ergodesign*
<https://go.gale.com/ps/i.do?id=GALE%7CA654249129&sid=googleScholar&v=2.1&it=r&linkaccess=abs&issn=23178876&p=AONE&sw=w>
- Rutledge, C., Walsh, C. M., Swinger, N., Auerbach, M., Castro, D., Dewan, M., Khattab, M., Rake, A., Harwayne-Gidansky, I., Raymond, T. T., Maa, T., & Chang, T. P. (2018). Gamification in action: Theoretical and practical considerations for medical educators. *Academic Medicine*, 93(7). <https://doi.org/10.1097/ACM.0000000000002183>
- Sailer, M., & Homner, L. (2020). The gamification of learning: A meta-analysis. *Educational Psychology Review*, 32(1). <https://doi.org/10.1007/s10648-019-09498-w>
- Sulistio, P. H. (2023). Language assessment literacy: Cases of pre-service English teachers. *Ijlecr - International Journal of Language Education and Culture Review*, 9(1), 1–10.
<http://dx.doi.org/10.21009/ijlecr.v9i1.33032>
- Syed, K. T. (2008). A Chinese teacher's perspective on professional development in literacy education. *International Electronic Journal for Leadership in Learning*, 12.
- Vagele-Kricina, A. (2018). Flexibility as a pedagogical challenge: "Teaching-through-play" or edutainment practices for computer science students. In *Conference proceedings*. books.google.com.
<https://books.google.com/books?hl=en&lr=&id=QJpaDwAAQBAJ&oi=fnd&pg=PA131&dq=gamifikasi+pedagogis&ots=6al8bopCuz&sig=ncUP0vGV4TSerpbPU4fXxGknosk>
- Vasalou, A., Oostveen, A. M., Bowers, C., & Beale, R. (2015). Understanding engagement with the privacy domain through design research. *Journal of the Association for Information Science and Technology*, 66(6). <https://doi.org/10.1002/asi.23260>
- Wook, T., Zairon, I. Y., Rahmat, M., Dahlan, H. A., & ... (2021). *Gamification strategy of active learning in mentoring among milineal students*. ukm.my.
<https://www.ukm.my/apjitm/public/assets/article/2021/1001/12.pdf>
- Yiing, L. Y., & Mahamod, Z. (2021). Keberkesanan kahoot terhadap pencapaian murid sekolah rendah dalam pembelajaran kosa kata bahasa Melayu. *Jurnal Dunia Pendidikan*.
<https://myjms.mohe.gov.my/index.php/jdpd/article/view/12559>