

Implementation of the Think Talk Write (TTW) Learning Model Assisted by Kahoot Game to Improve Indonesian Language Learning Outcomes of Fourth-Grade Elementary School Students

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ABSTRACT

Indonesian language literacy skills in elementary schools still face challenges, especially in writing skills, and relatively low student learning engagement. This study aims to analyze the effectiveness of the Think Talk Write (TTW) learning model assisted by Kahoot in improving Indonesian language learning outcomes of fourth-grade elementary school students with a focus on descriptive text writing skills. The study used a classroom action research approach implemented in two cycles with the stages of planning, implementation, observation, and reflection. The subjects of the study were 20 fourth-grade students selected purposively. Data were collected through observation, essay tests, and questionnaires, then analyzed descriptively. The results showed that in the pre-cycle, student engagement only reached 25% with an average score of 57.95 and learning completeness of 30%. After the implementation of TTW assisted by Kahoot in the first cycle, student engagement increased to 60% with an average score of 70.5 and completeness of 65%. In the second cycle, student engagement reached 85% with an average score of 84.8 and learning completeness of 90%. These improvements reflect that the implementation of Kahoot-assisted TTW not only increased students' active participation in discussions and the use of interactive digital media but also significantly improved their writing skills. In conclusion, the Kahoot-assisted TTW model is effective in increasing student engagement and learning outcomes gradually throughout the learning cycle, as well as providing practical contributions to innovative and relevant learning strategies for 21st-century digital literacy needs.

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1. Introduction

Language literacy is a key indicator of success in 21st-century education, especially at the elementary level. The 2022 Programme for International Student Assessment (PISA)

results show that Indonesian students' reading literacy scored only 371, far below the OECD average of 476 (OECD, 2023). This highlights the global challenge of improving language literacy, particularly in developing countries. Tompkins (2021) states that language learning for elementary-aged children should be based on authentic and interactive experiences to optimally develop language competence. This need is even more urgent in the digital era, where education systems must adapt to rapid changes by emphasizing not only academic knowledge but also 21st-century skills such as creativity, critical thinking, collaboration, and adaptability to technology (Rismana & Hernawati, 2025).

In Indonesia, particularly Aceh, the 2023 National Assessment shows that 42% of elementary students are below the minimum proficiency level in literacy (MoEC, 2023). This phenomenon is reinforced by Nursyalila et al. (2024), who found that Indonesian language instruction in many regions still relies heavily on lectures and does not optimize digital media. Meanwhile, Generation Alpha tends to learn responsively through technology; Lase (2021) underscores the need for digital gamification-based learning innovations to improve outcomes. In Aceh, limited use of technology in Indonesian language instruction contributes to low student engagement.

Based on initial observations at UPTD SD Negeri 2 Peusangan Siblah Krueng on February 14, 2025, students' writing skills remained low. Difficulties included limited vocabulary, low confidence in expressing ideas or opinions, boredom, and reduced concentration due to less engaging instruction. One model that can improve student outcomes is Think–Talk–Write (TTW). The TTW model was developed as a cooperative strategy integrating activities of thinking, discussing, and writing (Huda, 2017). Fajriani (2022) notes that TTW can enhance critical thinking and writing skills in elementary students through a gradual construction of knowledge. Meanwhile, Kahoot is a game-based learning platform that enables teachers to create interactive quizzes with elements of competition and timing, thus increasing motivation (Plump & LaRosa, 2020). Husna and Rahayu (2022) showed that using Kahoot can significantly increase student engagement and language learning outcomes. Combining TTW with Kahoot is therefore expected to optimize Indonesian language learning by bringing together the strengths of social interaction and technology.

Several studies have examined TTW's effectiveness in language instruction, such as Wahyuni and Sukma (2025), who reported significant improvements in elementary students' writing skills. Saputra and Prasetyo (2025) found that Kahoot increases motivation and participation in online learning. However, most studies tested these approaches separately. Research integrating TTW with Kahoot in Indonesian language instruction at the elementary level particularly in Aceh remains limited. Rohimah (2022) likewise highlights the need for collaborative innovations combining cooperative learning models with interactive digital media to improve outcomes.

This study aims to analyze the TTW model assisted by Kahoot in improving Indonesian language outcomes among fourth-grade students at UPTD SD Negeri 2 Peusangan Siblah Krueng. The focus is to evaluate improvements in text comprehension, discussion, and

writing after implementation, and to identify the role of interactive digital media in the learning process. Theoretically, the study extends research on cooperative, game-based approaches to Indonesian language learning and strengthens the foundation of Vygotsky's (1978) social constructivism relevant to interactive instruction. Practically, it provides guidance for teachers to design innovative TTW- and Kahoot-based lessons and contributes to curriculum development attuned to students' digital literacy needs, offering a reference for elementary-level policy makers.

2. Research Methodology

This study employed a classroom action research (CAR) approach to describe in detail the implementation of the Think–Talk–Write (TTW) model assisted by Kahoot in Indonesian language learning for fourth-grade students at UPTD SD Negeri 2 Peusangan Siblah Krueng. This approach was chosen because it allows researchers to analyze learning processes and outcomes contextually in real settings (Creswell & Poth, 2021). The research was conducted over two cycles, each consisting of two meetings aligned with the time allocation for Indonesian language.

The research subjects were 20 fourth-grade students selected through purposive sampling based on their direct involvement in TTW instruction. Data collection techniques included participant observation to monitor implementation fidelity and essay tests to measure learning outcomes after applying the model. The essay tests were designed based on Indonesian language skill indicators aligned with the learning objectives and were validated by a subject-matter expert.

3. Results and Discussion

The study was conducted across two CAR cycles with fourth-grade students at UPTD SD Negeri 2 Peusangan Siblah Krueng in the even semester of the 2024/2025 academic year. The primary goal was to improve learning outcomes through the TTW model. Each cycle followed the stages of planning, action, observation, and reflection. Data were collected through observations of student engagement in the think–talk–write process, writing skill tests, and student perception questionnaires regarding writing instruction using TTW.

a. Student Engagement Observations

Before the intervention (pre-cycle), student engagement was low. Of the 20 students, only 5 (25%) showed truly active participation in the learning process, as indicated by minimal contributions to initial discussions, limited responses to local cultural themes, and low enthusiasm when asked to write.

After implementing the TTW model combined with the interactive Kahoot medium in Cycle I, a notable improvement was observed: 12 students (60%) became actively engaged in group discussions and in responding to questions via Kahoot, which made learning more competitive and enjoyable.

This progress became even more evident in Cycle II, with 17 students (85%) actively

engaged. Their engagement was reflected not only in their enthusiasm for answering Kahoot items but also in their confidence in expressing opinions, participation in discussions, and seriousness in writing activities. Thus, TTW assisted by Kahoot created a more contextual, interactive, enjoyable, and meaningful learning environment.

Tabel 1. Results of Student Activity Observations

Stage	Number of students	Active category	Percentage (%)	Description
PRE-CYCLE	20	5 Students	25	Low
CYCLE I	20	12 Students	60	Moderate
CYCLE II	20	17 Students	85	High

b. Student Learning Outcomes

In the initial stage (pre-cycle), students' learning outcomes were still relatively low. The class average score was only 57.95, with 6 students (30%) achieving a score of ≥ 75 . This low achievement was caused by students' limited ability to express ideas, difficulties in developing storylines, and minimal participation in the initial learning discussions.

After the implementation of the Think Talk Write (TTW) model assisted by Kahoot in Cycle I, there was an improvement in learning outcomes. The class average score increased to 70.5, with 13 students (65%) achieving mastery. Students' involvement in group discussions, their confidence in expressing opinions, and their motivation to answer questions through Kahoot contributed to the improvement of their writing skills.

More significant progress was observed in Cycle II. The average student score reached 84.8, with 18 students (90%) achieving mastery. At this stage, most students were able to develop story ideas more coherently, enrich their narratives with elements of local culture, and compose more creative writings.

Thus, the implementation of the TTW model assisted by Kahoot proved effective in improving students' learning outcomes, particularly in writing descriptive texts.

Tabel 2. Learning Outcome Test

Stage	Average score	Mastery student	Percentage (%)	Description
PRE CYCLE	57,95	6	30	Low
CYCLE I	70,5	13	65	Fair
CYCLE II	84,8	18	90	High

4. Conclusion

The implementation of the Think, Talk, Write (TTW) learning model in writing descriptive texts has been shown to have a positive impact on the learning outcomes of fourth-grade elementary school students. This is evidenced by the increase in the students' average score from 57.95 in the pre-cycle to 84.8 in the second cycle, as well as the rise in the percentage of students achieving mastery from 30% to 84.8%. Beyond cognitive aspects, the TTW learning model, assisted by Kahoot, also significantly enhanced student

engagement, increasing from 25% to 85%, reflecting the growth of interest, enthusiasm, and active participation in the learning process. This aligns with Vygotsky's theory, which emphasizes the importance of social and cultural context in learning, and is consistent with the principles of the Merdeka Curriculum that prioritize meaningful and contextual learning.

Theoretically, these findings are consistent with Huda's (2017) view that the Think-Talk-Write (TTW) strategy can gradually develop critical thinking, communication skills, and writing abilities through the stages of thinking (think), discussing (talk), and writing (write). Similarly, Tika (2023) argues that combining TTW with Kahoot as a learning medium greatly facilitates teachers in conducting quizzes during lessons, particularly in the subject of Indonesian Language. By engaging in quizzes through this application, students feel more interested and less easily bored. This indicates that cooperative learning models enriched with gamification can provide a more meaningful learning experience and enhance learning outcomes.

The highest improvement in students' ability to compose descriptive paragraphs suggests that the integration of TTW and Kahoot is highly effective for productive skills that require creativity and collaboration. This is reinforced by Cindra's (2025) findings, which highlight that TTW has a significant positive impact, including increasing student engagement in learning, improving academic achievement, and fostering students' skill development. In the indicator of identifying main ideas, the role of group discussions and Kahoot's instant feedback helped students quickly validate their understanding of reading texts, as supported by the theory of immediate feedback (Shute, 2008).

The supporting factors for this success include: (1) the suitability of the TTW model with the characteristics of elementary students who require active learning, (2) the use of Kahoot, which attracts students' interest and encourages participation, and (3) the collaborative learning environment that facilitates social interaction, in line with Vygotsky's (1978) social constructivist theory. However, there were technical obstacles, such as limited internet access and devices for some students, requiring teachers to prepare printed media alternatives as support.

Conceptually, this research contributes to the development of Indonesian language learning by validating that combining the cooperative TTW model with digital gamification media can significantly improve learning outcomes. Practically, these findings can serve as a reference for teachers to integrate interactive learning technologies with collaborative teaching strategies. Further studies are recommended to examine the application of similar models in other subjects or educational levels, as well as to explore their impact on 21st-century skills such as collaboration, creativity, and problem-solving.

The application of the Think Talk Write (TTW) learning model, assisted by Kahoot, successfully improved the Indonesian language learning outcomes of fourth-grade elementary school students. Through the stages of thinking, discussing, and writing combined with interactive digital media, students became more active, motivated, and able to express ideas in a more structured way. In addition to improving writing skills, this

learning also created a more enjoyable and collaborative classroom atmosphere and encouraged overall student engagement. Thus, the combination of TTW and Kahoot can serve as an innovative and relevant learning strategy alternative to support literacy competence achievement in elementary schools.

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