



ENHANCING STUDENTS' LEARNING OUTCOMES THROUGH THE SMART LEARNING MODEL IN INDONESIAN LANGUAGE INSTRUCTION FOR ELEMENTARY SCHOOL STUDENTS

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ABSTRACT

Indonesian language learning in elementary schools still faces various challenges, particularly the low literacy skills and limited student engagement during the learning process. Teacher-centered instructional practices often result in passive participation, weak comprehension, and minimal use of digital learning media. These issues indicate the need for an innovative approach that supports active, interactive, and technology-enhanced learning aligned with the characteristics of today's digital generation. This study aims to improve the quality of learning processes and outcomes in Indonesian language instruction through the application of the Smart Learning model as a technology-integrated learning innovation. This research employed classroom action research conducted collaboratively with the classroom teacher. The procedures included planning, implementing actions, observing learning activities, and reflecting on the improvements made. Digital media, collaborative activities, and structured instructional steps were integrated into the learning process. Data were collected through observations, documentation, and learning outcome assessments, and analyzed using qualitative and quantitative descriptive methods. The findings indicate that Smart Learning effectively increased students' participation, independence, and comprehension of the material. Learning became more interactive, engaging, and meaningful, enabling students to understand concepts more thoroughly. Overall, the Smart Learning model proved effective in enhancing both the learning process and student achievement in Indonesian language instruction.

Keywords: Smart Learning; Indonesian language; learning outcomes; literacy

1. Introduction

Indonesian language instruction in elementary schools plays an essential role in developing students' literacy skills, particularly in listening, speaking, reading, and writing. However, in practice, many teachers still rely on conventional, teacher-centered approaches. This condition leads to low student engagement, suboptimal comprehension of the material, and learning outcomes that do not meet the expected standards (Murjinah et al., 2024). Students' low motivation during lessons also contributes to their limited achievement in Indonesian language learning (Emeral et al., 2019). One of the main factors underlying this problem is the continued use of traditional, teacher-dominated instructional models (Intania et al., 2024). Teachers tend to control the learning process through lecture-based methods, while students remain passive listeners. As a result, students have limited opportunities to actively participate or explore their language abilities. This lack of engagement ultimately affects their performance and contributes to low achievement in Indonesian language learning (Septyani et al., 2023).

The rapid development of technology has not yet been fully utilized in elementary school learning. In fact, today's generation is a digital generation that is highly familiar with technology (Rasyid et al., 2023) (Rahmah & Lubis, 2024) (Fauzi et al., 2021). The mismatch between students' learning styles and the instructional approaches commonly used in classrooms makes learning less engaging and less relevant to students' needs. Therefore, a learning model that integrates technology while improving the quality of instructional interaction is urgently needed. The Smart Learning model emerges as an innovative alternative to address these issues (Lestari et al., 2024). Smart Learning is an intelligent instructional model that integrates information technology, digital media, and various innovative learning strategies to create a more active, interactive, and personalized learning experience. Through this approach, students are encouraged to think critically and creatively, and to participate more fully in the learning process (Hwang et al., 2021). The Smart Learning model also enables teachers to present Indonesian language material in more varied and engaging ways. Teachers can incorporate instructional videos, interactive images, digital quizzes, and online learning platforms to support students' learning (Tyagi, 2020). The use of such technology not only makes learning more appealing but also helps students understand the material more concretely and easily (Rukoyah & Bektiningsih, 2024). Consequently, Smart Learning provides students with greater opportunities to learn in ways that align with their individual learning styles.

Previous studies have shown that technology-based and digitally oriented learning models, including Smart Learning, have a significant impact on elementary students' engagement and learning outcomes. (Maftuhah, 2024) found that the integration of digital media can enhance students' attention and comprehension in language learning. Similarly, research by (Teme, 2024) concluded that the use of interactive applications within the Smart Learning framework consistently improves students' learning motivation. Studies conducted by (Lee et al., 2023) also demonstrated that learning approaches involving collaborative activities and multimedia are more effective in improving elementary students' reading and writing skills compared to traditional methods. Furthermore, (Rahamtillah* et al., 2024) emphasized that Smart Learning creates a more appealing learning atmosphere, directly contributing to improved learning outcomes. These findings are supported by Lestari (2020), who reported that the use of digital platforms in Indonesian language learning strengthens students' reading comprehension abilities. Research by (Wang et al., 2019) likewise confirmed that Smart Learning encourages students to become more active, creative, and independent in processing information. (Wang et al., 2019) further concluded that the Smart Learning model effectively enhances digital literacy and language proficiency by integrating technology, collaboration, and meaningful learning experiences (Shi et al., 2020). Overall, these studies indicate that the Smart Learning model makes a substantial contribution to improving the quality and outcomes of Indonesian language learning at the elementary school level.

Although various studies indicate that technology and the Smart Learning model have the potential to improve learning effectiveness, research that specifically examines their implementation in Indonesian language instruction at the elementary

school level remains limited (Gurung, 2024). Most existing studies focus primarily on increasing learning motivation or utilizing digital media in general, without explaining how Smart Learning directly contributes to the development of key language skills such as text comprehension, paragraph construction, and accurate use of linguistic structures (Suswandi & Ripandi, 2024). Moreover, previous research has not sufficiently described how this model addresses specific challenges in Indonesian language learning, including low reading comprehension, limited student participation in discussions, and difficulties in expressing ideas in written form (SOH et al., 2019). This research gap highlights the need for a more in-depth investigation to determine the effectiveness of Smart Learning in improving Indonesian language learning outcomes among elementary school students.

Problems in Indonesian language learning at the elementary level are still frequently encountered, particularly regarding students' low literacy skills in understanding texts, constructing paragraphs, and expressing ideas both orally and in writing. This condition is also evident at SD Negeri 1 Kaobula, where many students continue to struggle with interpreting reading passages and show limited participation in classroom discussions. The learning process tends to remain teacher-centered, which restricts students' opportunities to engage actively and creatively throughout the lesson. In addition, the use of learning media and technology has not been optimal, causing the learning environment to feel monotonous and less appealing. These issues contribute to low student achievement in Indonesian language learning and highlight the need for more varied, interactive, and student-oriented instructional innovations that align with learners' characteristics. To address these challenges, an instructional model that is more innovative, interactive, and capable of enhancing student engagement is required. One such approach is the Smart Learning model, which enables teachers to utilize technology more effectively, provide engaging learning media, and create student-centered learning activities.

Smart Learning, in the context of Indonesian language instruction, can help students better understand texts, enrich their vocabulary, and strengthen their reading and writing skills through various technology-based activities. For example, students can create digital summaries, answer questions through interactive platforms, or compose stories using learning applications. Such activities can enhance literacy skills more effectively than conventional approaches. Given these benefits, the implementation of the Smart Learning model is important to investigate, particularly regarding its potential to improve elementary students' learning outcomes. Research on the use of Smart Learning in Indonesian language instruction is expected to provide a clear illustration of its effectiveness in enhancing the quality of learning. Moreover, the findings may serve as valuable guidance for teachers and schools in adopting more innovative, interactive, and technologically aligned instructional strategies that meet the needs of the current generation.

2. Research Methods

This study is a classroom action research (CAR) project aimed at improving Indonesian language learning outcomes through the implementation of the Smart Learning model. The research was conducted collaboratively between the researcher and the classroom teacher by following the stages of planning, implementing

actions, observing, and reflecting in each cycle (Ananda, 2024) (Mahama & Arifin, 2021). The participants consisted of twenty-three fourth-grade students at SD Negeri 1 Kaobula, representing a range of learning abilities. By employing the CAR approach, this study is expected to provide concrete and sustainable improvements to both the learning process and student outcomes in Indonesian language instruction through the application of more interactive and technology-based learning strategies.

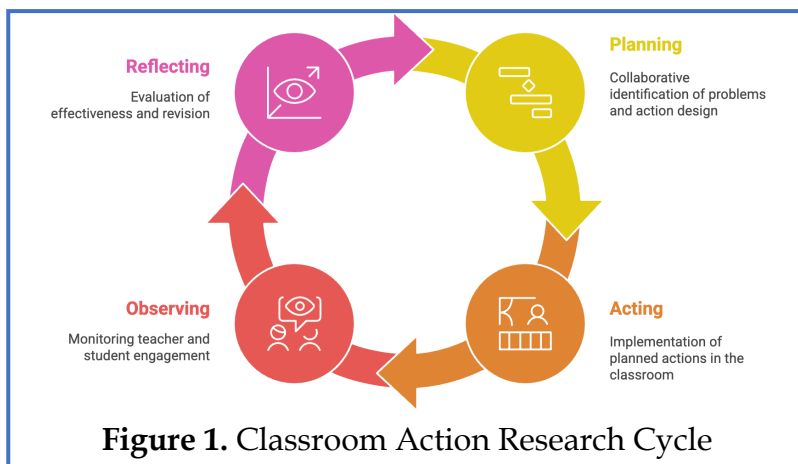


Figure 1. Classroom Action Research Cycle

The steps of the Classroom Action Research (CAR) implemented in this study consist of four main stages. In the planning stage, the researcher and the teacher identified the existing problems in Indonesian language learning and designed the actions to be carried out, including preparing Smart Learning-based lesson plans, digital media, observation sheets, and learning outcome assessment instruments. The action implementation stage involved applying the Smart Learning model in the learning process through the use of digital media, collaborative activities, and interactive approaches to enhance student engagement. In the observation stage, the researcher and teacher monitored both student and teacher activities throughout the action, documenting challenges encountered and students' responses to the learning process. The final stage was reflection, during which the researcher and teacher evaluated the results of each cycle to determine the effectiveness of the actions and identify necessary improvements before proceeding to the next cycle. Through these systematic stages, the CAR process was carried out to enhance the quality of Indonesian language learning.

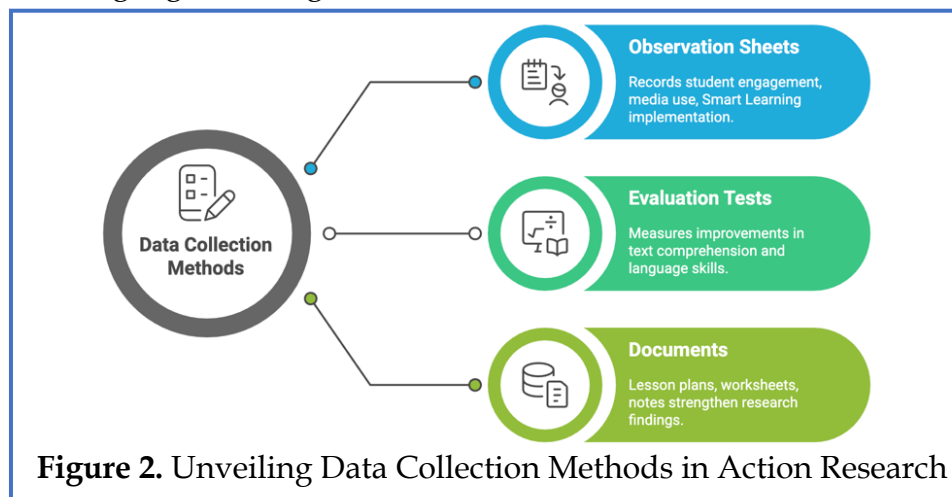


Figure 2. Unveiling Data Collection Methods in Action Research

Data collection in this classroom action research was carried out using several complementary techniques to obtain accurate information regarding both the learning process and the learning outcomes in Indonesian language instruction. Student and teacher activity data were gathered through observation sheets that documented student engagement, media utilization, and the implementation of the Smart Learning model in each cycle. In addition, students' learning outcomes were assessed through evaluation tests administered at the end of each cycle to measure improvements in text comprehension and language skills (Mustikaningrum et al., 2021). Documents such as lesson plans, student worksheets, and records of classroom activities were also used as supplementary data sources to strengthen the research findings (Jannah et al., 2024). Through these diverse data collection techniques, the researcher was able to comprehensively evaluate the effectiveness of the actions implemented.

Data analysis in this classroom action research was carried out using both qualitative and quantitative descriptive approaches to identify changes occurring in the learning process and students' outcomes across each cycle. The observation data regarding student and teacher activities were analyzed qualitatively by describing the level of engagement, student responses, and challenges encountered during the implementation of the Smart Learning model (Maulida et al., 2022). Meanwhile, the learning outcome data were analyzed quantitatively using calculations of mastery percentages and improvements in students' average scores for each cycle. The results of both qualitative and quantitative analyses were then compared across cycles to determine the extent to which the implemented actions enhanced the quality of Indonesian language learning. This analysis served as the basis for assessing the effectiveness of the interventions and identifying necessary improvements for subsequent cycles.

3. Results and Discussion

The findings of this study across the implemented cycles show significant improvement. In Cycle I, students' learning activities were categorized as adequate, with several students not yet fully engaged in the learning process and evaluation results that were still varied. After improvements were applied in Cycle II through enhanced use of media, clearer instructional guidance, and more intensive support, student engagement increased to a good category. This improvement was evident from more active participation and higher levels of focus during learning activities. Students' learning outcomes in Cycle II also showed consistent progress, with a greater number of students achieving scores above the minimum mastery criteria. Overall, the changes observed across the cycles indicate that the actions implemented were effective in improving both the quality of the learning process and the learning outcomes of the students.

3.1 Results

Based on the results of the classroom action research conducted across two cycles, it can be concluded that the implementation of the Smart Learning model was able to improve both student activity and learning outcomes in Indonesian language instruction.

Pre cycle

The results of the pre cycle phase show that students' initial abilities in Indonesian language learning were still in the low category. This was evident from their limited understanding of the material, particularly in reading comprehension, writing, and answering text based questions. Students' learning activities were also observed to be less optimal. Most students appeared passive, showed minimal participation in discussions, and were not yet able to use learning media independently. In addition, the initial evaluation results indicated that the majority of students had not yet achieved the minimum mastery criteria. This condition demonstrates the need for improvements in the learning process. It also served as the basis for implementing actions through the Smart Learning model to improve the quality of the learning process and students' outcomes in the subsequent cycle.

Table 1. Percentage of Pre cycle Results

Category	Number of Students	Percentage
Mastery	3 students	13.04%
Not Mastery	20 students	86.96%
Total	23 students	100%

The pre cycle results indicate that students' achievement levels in Indonesian language learning were still relatively low, with an average score of only 56.09. This finding aligns with the mastery percentage, showing that only 3 out of 23 students, or 13.04 percent, achieved the minimum mastery criteria, while 20 students, or 86.96 percent, had not yet met the standard. The high percentage of students who did not achieve mastery illustrates that most learners continued to experience difficulties in understanding the material, particularly in reading, writing, and other language related skills. This condition highlights the need for improvement through a more effective learning model to enhance student performance in the next cycle.

Cycle I

The results of Cycle I show an improvement compared to the pre cycle phase, although the expected mastery target had not yet been achieved. Students' learning activities began to increase, and their engagement during the implementation of the Smart Learning model appeared better than before. Students' learning scores also showed improvement, although most of them were still classified as not yet achieving mastery. Out of a total of 23 students, only 10 students were able to obtain scores above the minimum mastery criteria. This indicates that the actions implemented in Cycle I had begun to produce positive effects, but further improvements were still needed in the delivery of learning materials, the use of digital media, and the support provided during learning activities so that the results in Cycle II could be optimized.

Table 2. Percentage of Cycle I Results

Category	Number of Students	Percentage
Mastery	10 students	43.48%
Not Mastery	13 students	56.52%
Total	23 students	100%

The results of Cycle I show that the students' average score reached 70. However, this achievement did not meet the minimum mastery criteria, meaning that overall learning outcomes were still categorized as not yet mastered. Based on the data, only 10 out of 23 students, or 43.48 percent, achieved the minimum mastery score, while 13 students, or 56.52 percent, were still below the required standard. These findings indicate that although there was an improvement compared to the pre cycle phase, students' overall ability still needed to be enhanced, particularly in understanding Indonesian language material through the Smart Learning model. This condition highlights the need for refinement in the next cycle so that the learning process becomes more effective and the number of students who achieve mastery can increase.

Cycle II

The implementation of Cycle II demonstrated a much greater improvement compared to the previous cycle after several enhancements were made in the use of digital media, the clarity of instructional guidance, and the support provided to students during the learning process. Students appeared more active, enthusiastic, and able to follow the steps of the Smart Learning approach both independently and collaboratively. This increased participation directly influenced learning outcomes, as most students were able to understand the material more effectively. The improved instructional strategies applied in this cycle proved to be effective, as reflected in the higher number of students who achieved mastery compared to Cycle I. This improvement is evident in the learning outcome data presented in the following table.

Table 3. Percentage of Cycle II Results

Category	Number of Students	Percentage
Mastery	21 students	91.30%
Not Mastery	2 students	8.70%
Total	23 students	100%

The results of Cycle II indicate a very significant improvement, with the average score reaching 91, which shows that students' understanding of Indonesian language material had developed optimally. Based on the data, 21 out of 23 students, or 91.30 percent, achieved mastery, while only 2 students, or 8.70 percent, remained below the minimum mastery criteria. The high percentage of mastery reflects that the improved instructional strategies through the application of the Smart Learning model in Cycle II were effective in enhancing both student activity and learning outcomes.

Improvement in Student Learning Outcomes

The improvement that occurred demonstrates that a more interactive learning approach supported by the use of technology is capable of providing a positive impact on the quality of the learning process as well as on students' academic achievement.

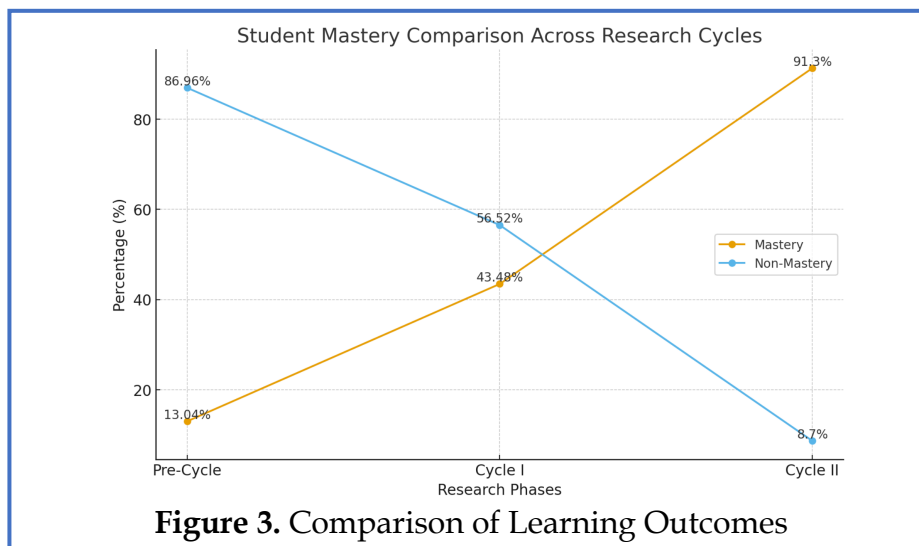


Figure 3. Comparison of Learning Outcomes

The graph shows a very clear improvement in students’ abilities from the pre cycle stage to Cycle II. At the beginning, most students were in the non mastery category, but this condition began to improve in Cycle I as more students achieved mastery. The improvement continued even more strongly in Cycle II, where almost all students met the mastery criteria and only a few remained in the non mastery category. Overall, the graph illustrates the success of the learning improvement efforts that were implemented, as the number of students who mastered the material steadily increased while the number of those who had not yet mastered it continued to decrease.

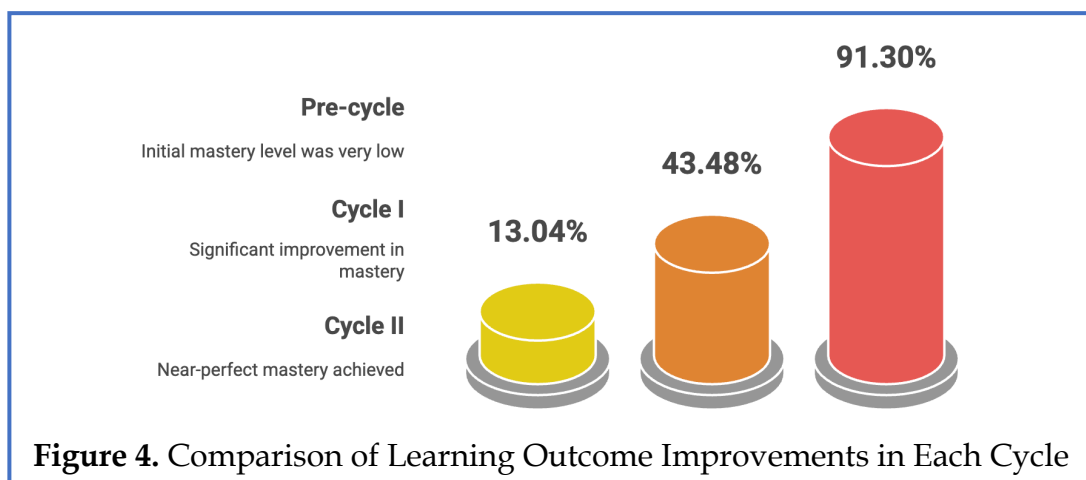


Figure 4. Comparison of Learning Outcome Improvements in Each Cycle

The figure presents a gradual increase in student mastery across the three stages of learning. In the pre cycle phase, the level of mastery is very low with only 13.04 percent of students meeting the expected criteria. This condition shows that the initial understanding of the students is still limited and the learning process before the intervention has not provided optimal results. When the Smart Learning model is introduced in Cycle I, the mastery level rises to 43.48 percent which indicates a meaningful improvement in student participation and comprehension. In Cycle II, the mastery level reaches 91.30 percent which reflects a very high achievement. This substantial improvement is influenced by better use of digital media, clearer learning guidance, and more effective support for students throughout the activities. The figure clearly shows an upward progression in

learning outcomes across each stage. This pattern proves that the Smart Learning model is effective in enhancing students mastery of the Indonesian language when applied consistently and supported with appropriate learning strategies.

Analysis of Teacher and Student Activities

Teacher and student activities in the pre cycle stage were still in the low category. The teacher tended to use conventional, one way instructional methods, which gave students limited opportunities to participate actively in Indonesian language learning. Students appeared passive, showed little enthusiasm, and did not demonstrate initiative in completing tasks or responding to questions. In addition, the use of technology based learning media was almost nonexistent, making the learning process feel monotonous and less engaging for students. These conditions indicated the need for a more interactive learning model to improve the quality of instruction.

Teacher activity in Cycle I began to improve in line with the more structured implementation of the Smart Learning model. The teacher used digital media such as visual tools and interactive learning materials, which made the learning environment more lively. However, several challenges were still observed, including limited time management and instructions that were sometimes unclear for some students. Student activity also showed improvement, although some students were still hesitant in using technology and were not yet fully involved in collaborative activities. These developments indicate that adaptation to the new learning model had begun to form, although not yet optimally. In Cycle II, teacher activity improved even more significantly. The teacher appeared more skilled in applying the steps of Smart Learning, both in the use of digital media and in delivering instructions as well as facilitating group discussions. The teacher was also more responsive to student needs and able to create a more interactive learning atmosphere. On the other hand, student engagement increased significantly; they were more confident in expressing their ideas, active in working collaboratively, and able to use learning media independently. This indicates that technology based learning had begun to become part of their learning habits.

The development of teacher and student activities from the pre cycle stage to Cycle II shows a consistent positive change. The use of the Smart Learning model not only increased student participation but also encouraged teachers to be more creative and innovative in managing instruction. Students' abilities in completing tasks, thinking critically, and collaborating also improved noticeably. The integration of technology made learning more engaging and stimulated students' motivation to participate actively. Thus, the changes in the activities of both teacher and students became one of the key factors that contributed to the improvement of learning outcomes in this study.

3.2 Discussion

The pre cycle results show that students' initial abilities in Indonesian language learning were still in the low category. Their understanding of the material, particularly in reading comprehension, writing, and responding to text based questions, had not yet developed well. Learning activities were also not optimal, as many students remained passive, were less involved in discussions, and had not

been able to use learning media independently. This situation indicates that the learning process required a more effective approach so that students could become more active and better understand the material. Overall, the pre cycle data also confirm that most students had not yet achieved the established mastery criteria. This condition reflects a gap between the expected competencies and students' actual abilities, signalling the need for systematic improvements. The implementation of a more innovative learning model such as Smart Learning is considered essential to enhance students' comprehension, engagement, and learning outcomes in the next stages. This model is expected to provide more meaningful learning experiences and significantly improve the quality of Indonesian language instruction.

The implementation of Cycle I demonstrated positive progress compared to the initial condition. Students began to show increased activity and engagement in learning through the Smart Learning model. They appeared more responsive, more active in following instructions, and gradually more capable of using learning media effectively. Although their understanding of the material began to improve, most students had not yet reached the expected level of mastery. This indicates that the efforts made at this stage had begun to yield an impact but were not yet sufficient to produce optimal change. Overall, the results of Cycle I show that further improvement was needed, especially in the delivery of material, the utilization of digital media, and the support provided during learning activities. Enhancing these aspects is important to reduce the obstacles students continued to face and improve their understanding of the content. With refinement in the next cycle, the learning process is expected to become more effective and enable more students to achieve the intended learning objectives.

The implementation of Cycle II showed much greater improvement after various enhancements were applied, particularly in the use of digital media, the clarity of instructions, and the support provided during the learning process. Students appeared more active and enthusiastic in both individual and group activities. They were able to follow the steps of the Smart Learning model more smoothly, allowing the learning process to run more effectively and enjoyably. This change provides evidence that the improved strategies in this cycle successfully created a more conducive learning environment and helped students understand the material more easily. The learning outcomes in Cycle II also showed very significant progress compared to the previous cycle. Most students achieved mastery, indicating that they had understood the learning material well. The more interactive instruction supported by technology produced positive effects on both student engagement and comprehension. These findings confirm that the learning strategies applied in Cycle II were effective and capable of improving the overall quality of learning, both in terms of process and outcomes.

4. Conclusion

Based on the findings of this study, it is evident that the learning process experienced significant improvement. In the pre cycle phase, students' initial abilities were still in the low category, characterized by limited understanding of the material and minimal engagement in learning activities. Through the improvement efforts implemented in Cycle I, an increase in student activity and enthusiasm began to appear, although most students

had not yet achieved mastery. This change indicates that the Smart Learning model had begun to produce a positive impact on the way students understood the material and participated in learning activities. Further improvements in Cycle II produced even more optimal results. Students became more active, better guided, and able to follow the steps of the learning process independently as well as collaboratively. The learning outcomes in this cycle show that most students had understood the material well and achieved mastery. Therefore, it can be concluded that the gradual implementation of the Smart Learning model was effective in enhancing both the learning process and student achievement. This approach, which incorporates technology, engaging media, and more intensive guidance, proved to be effective in helping students achieve the expected competencies.

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