

Improving Student Learning Activeness Through Utilization Of Smartboard In Thematic Learning In Grade III SDN 1 Anyar

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Abstract

This study aimed to increase students' participation in the learning process through the use of a smartboard in thematic learning for third-grade students at Anyar 1 State Primary School, consisting of twenty-five students. The research employed the Classroom Action Research (CAR) method, which is a systematic research approach involving actions taken by teachers to improve the quality of the learning process. The data were collected through observation as the primary data collection method and documentation as a supporting method. The results of the study showed an improvement in students' learning activeness in thematic learning. The percentage of students' learning activeness increased from 0% in the pre-cycle, to 56% in Cycle I, and significantly increased to 92% in Cycle II. These findings indicate that the use of the smartboard successfully enhanced students' learning activeness in thematic learning, achieving 92% by the end of the study. In other words, the majority of students demonstrated a significant improvement in their learning activeness, particularly in thematic learning for third-grade students at Anyar 1 State Primary School, Karang Tunggul Hamlet, Anyar Village, Bayan District, North Lombok Regency.

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1. INTRODUCTION

Education is an effort to create equality and develop students' abilities so they can achieve the desired educational quality standards. However, when compared to other countries, the quality of education remains a serious issue. The challenge faced in education is the low quality of education at various levels, both formal and non-formal. One cause is the limited human resources with the experience and skills to address developments in various fields. Quality education is both a necessity and a crucial requirement for achieving educational goals. Therefore, efforts to improve the quality of education must be carried out in a planned, sustainable, and cyclical manner by all parties involved in the implementation of education. Wahyudi et al. (2021) also stated that school performance related to the learning process also needs to be continuously improved to optimally achieve educational goals.

The development of science and technology (IPTEK) is currently proceeding very rapidly. This has had a significant impact on the world of education, both in terms of facilities and infrastructure and learning content, such as the methods, models, strategies, and approaches used. Moreover, education has now entered the 21st century, characterized, according to the Ministry of Education and Culture, by easy access to information anytime and anywhere and the application of machine-based or computerized technology in the learning process. Regardless of

the term used, whether education in the digital era or education in the 21st century, the primary goal remains to achieve national education goals. The development of information and communication technology that goes hand in hand with the flow of globalization allows for rapid interaction and information dissemination. This globalization has both positive and negative impacts on a country.

Furthermore, competition in the digital era is driving inter-country competition, which demands improvements in the quality of human resources. In this regard, education plays a crucial role as a means of developing these qualities. For Indonesia, this situation presents a unique challenge in efforts to improve educational quality. Digital education itself is a learning concept that utilizes various multimedia media, such as computers, smartphones, video, audio, visuals, and even smartboards. Along with the development of learning design, the use of technology involves not only software but also hardware, such as audio-visual equipment and other electronic media, so that the educational process can be more effective and efficient (Verdinandus et al., 2022).

This concern is reinforced by more recent and specific studies. Nur et al. (2024) found that the use of appropriate learning media has a direct and measurable effect on improving students' learning achievement in elementary schools, particularly when the media allows students to interact directly with the material rather than merely receiving it passively. In a related study, Nurmala et al. (2024) reported that students' learning motivation and learning activity together contribute significantly to their learning outcomes, indicating that interventions aimed at raising classroom activeness, such as the introduction of interactive digital media, can be expected to have a downstream effect on academic achievement as well. These recent findings support the relevance of introducing smartboard-based media as an intervention to address the low learning activeness observed at SDN 1 Anyar.

Student learning activity refers to all activities, both physical and non-physical, undertaken optimally during the learning process, thereby creating a conducive classroom atmosphere. Learning activity aims to help students construct their own knowledge. Students actively build an understanding of the problems or material encountered during the learning process. Learning activity can also be defined as the efforts made by students in carrying out learning activities. This is evident in their involvement in seeking and obtaining information from various sources, such as books, teachers, and friends. Through this involvement, students are expected to recognize and develop their learning potential and capacity to the maximum. Thus, student learning activity significantly influences learning outcomes (Fathiya Eka Putri et al., 2022).

Student learning activity can be observed through several indicators, including: (1) participating in carrying out the learning tasks given; (2) being actively involved in the problem-solving process; (3) asking questions to friends or teachers when experiencing difficulties in understanding the material; (4) taking the initiative to seek various relevant sources of information to solve problems; (5) participating in group discussion activities according to the teacher's direction; (6) reflecting by assessing one's own abilities and the learning outcomes obtained; and (7) utilizing and applying the knowledge that has been learned in completing tasks or problems faced (Ahmad Hariyandi & Ayu Cahyani, 2023).

Learning media are tools utilized by educators, using various tools designed to facilitate the delivery of material during the learning process in schools. One form of such learning media is the smartboard, a whiteboard integrated with computer-based multimedia technology used in learning activities to support and facilitate users in various learning activities (Fauziah et al., 2023).

According to Kamaladiniet in Diansari (2025), smartboard media is a device designed in the form of an interactive board used to convey information while stimulating students' thinking and learning interests. More comprehensively, a smartboard can be defined as a multimedia-based interactive whiteboard that utilizes audio-visual technology and is developed in a modern way to support the learning process to be more effective and interesting. By utilizing this technology, the

learning process is expected to be more interactive, innovative, and able to increase student activity and participation in the classroom.

In the teaching and learning process, learning media plays a crucial role in arousing students' enthusiasm and interest in learning. Furthermore, media can improve academic achievement and provide a positive psychological impact on students. The use of learning media can help students better understand school material. Learning media serves as a tool to assist teachers in delivering material, such as the use of slides, photos, graphics, films, and computer-based learning, which functions to capture, process, and present information (Hasan et al., 2021). According to observations and interviews at SDN 1 Anyar, before the introduction of digital-based media (smartboards), the learning process was less enjoyable. Teachers tended to use lecture methods, resulting in passive learning. Thematic learning, which integrates various subjects, requires students to actively observe, listen, ask questions, read, and write. Therefore, researchers implemented learning innovations through classroom action by integrating smartboards.

2. RESEARCH METHODS

This study is a Classroom Action Research (CAR) conducted at SDN 1 Anyar, Anyar Village, Bayan District, North Lombok Regency. The subjects were 25 third-grade students of SDN 1 Anyar in the 2025/2026 academic year. This CAR aims to improve their performance as teachers and educators, thereby increasing student learning outcomes and engagement. Classroom Action Research (CAR) is a research activity conducted in the context of classroom learning with the aim of addressing various problems faced by teachers during the learning process (Astutik et al., 2021).

The research procedure refers to the Kemmis & McTaggart (1988) model, which consists of four components in one cycle: planning, action, observation, and reflection. This cycle is carried out repeatedly to continuously improve and enhance the learning process until success indicators are achieved. In Cycle I, the planning stage consisted of developing a Lesson Implementation Plan (RPP) for the "Living Things" theme, preparing the smartboard and the learning video, and preparing the observation rubric for the five learning activity indicators. The action stage was carried out in one meeting of 2 x 35 minutes, in which the teacher presented the material through a video displayed on the smartboard and then invited students to play a game of mentioning examples of living and non-living things. The observation stage was carried out simultaneously with the action by two observers, namely the researcher and the class teacher, who filled in the observation rubric for each student. The reflection stage was carried out immediately after the meeting by discussing the observation results together with the class teacher to identify obstacles, which in Cycle I were found in the form of some students remaining passive during the question-and-answer session. In Cycle II, the planning stage used the results of the Cycle I reflection to design a more interactive RPP by adding an app-based quiz (Wordwall) accessed directly through the smartboard. The action stage was again carried out in one meeting of 2 x 35 minutes, in which students were asked to come forward and touch the smartboard directly to answer the quiz questions. The observation stage followed the same procedure as in Cycle I, using the same rubric so that the results of the two cycles could be compared. The reflection stage in Cycle II was used to confirm that the classical completion had exceeded the 80% success indicator, so that the action research was stopped after two cycles.

Data collection techniques used included observation, interviews, and documentation. Observation was the primary method for measuring five indicators of student learning activity: visual, oral, listening, writing, and emotional/mental. Assessment used a rubric scaled from 1 to 5 for each indicator, resulting in a maximum score of 25 for each student. Data analysis was conducted by calculating the percentage of individual and class learning completion. A student is considered to have completed their learning activity if they achieve a score of at least 75% of the total score. The class success indicator for this study was determined when at least 80% of students in a class achieve completion (Saadi, 2020; Khomsoh, 2021).

3. RESULTS AND DISCUSSION

Based on observations during the initial (pre-cycle) period, the learning engagement of third-grade students at SDN 1 Anyar was still very low. Teachers still predominantly used conventional learning methods such as lectures and question-and-answer sessions. Consequently, the learning process was less effective and less engaging. Of the 25 students, not a single one (0%) achieved the expected learning engagement. The average student engagement score was still below the Minimum Completion Criteria (KKM).

The learning implementation in Cycle I was carried out on thematic subjects with a time allocation of 2 x 35 minutes. The meeting focused on delivering material by showing a learning video using smartboard media. In this cycle, the material taught was about "Living Things". After the presentation of the material through the video, the teacher invited students to play a game by mentioning various examples of living and non-living things. Based on the results of observations in Cycle I, the level of student learning activity began to show an increase. A total of 14 students (56%) managed to achieve a passing grade, while 11 other students still had not completed it. Although there was an increase, this result did not reach the classical success indicator of 80%.

During the reflection phase of Cycle I, it was discovered that some students remained passive, particularly during the question-and-answer session. This evaluation served as a reference for improvements in Cycle II. Cycle II was designed to be more interactive, using the smartboard not only to display videos but also for interactive app-based quizzes (Wordwall). Students were asked to come forward and touch the smartboard directly to answer questions.

The evaluation results in Cycle II showed a significant increase. Twenty-three out of 25 students (92%) were declared to have met the learning activity criteria, while only two students were found not to have. This improvement demonstrates that the integration of smartboard media with interactive strategies (digital quizzes) is highly effective in motivating and encouraging active student participation in class.

The development of student learning activity from Pre-cycle, Cycle I, and Cycle II can be seen visually in the following graph:



Graph 1. Distribution of Student Learning Activity Completion per Cycle

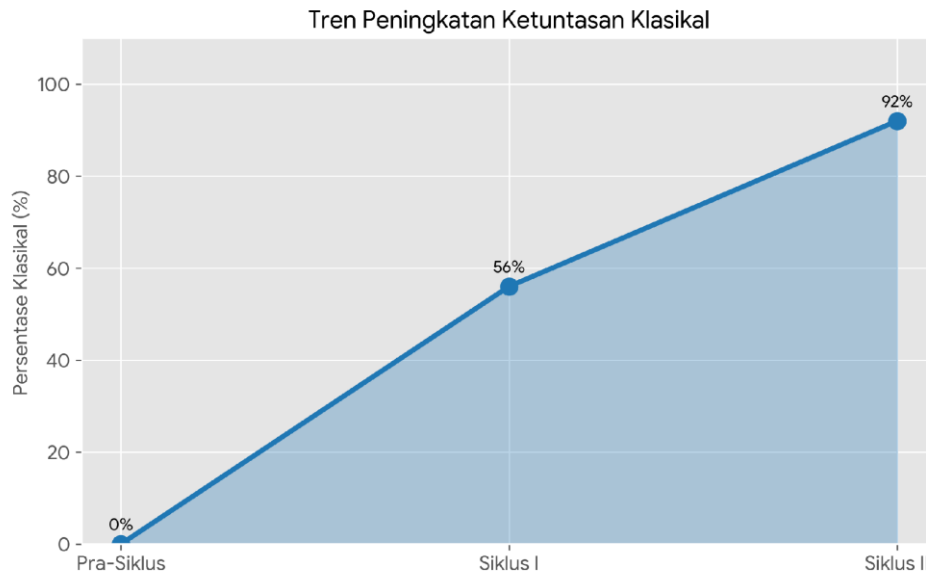


Chart 2. Trend of Increasing Percentage of Classical Completion

The graph above clearly shows a significant difference between the initial conditions before the smartboard was implemented and the conditions after each cycle. The percentage of classical completion increased progressively. This increase was in line with the increasing value of student learning activity and the increasing number of students achieving completion in each cycle. Various shortcomings discovered in cycle I were successfully addressed through a more inclusive and interactive digital media approach (Sholihah & Hamidaturrohmah, 2023). These results demonstrate that the use of smartboards in thematic learning has a massively positive impact on increasing student learning activity.

This relationship between the use of smartboards and increased student engagement is also supported by other studies. Ariyanti et al. (2021), who developed smartboard media for third-grade mathematics learning, found that the visual and interactive features of the smartboard made it easier for students to focus during lessons and encouraged them to respond more often to the teacher's questions compared with conventional whiteboard-based instruction. Similarly, Jandri et al. (2025) reported that the use of a smartboard in Pancasila education learning was associated with an increase in students' learning motivation, particularly because the board allowed students to interact directly with the material through touch rather than only watching it. The pattern found in the present study, where student engagement rose sharply once students were able to physically touch and operate the smartboard during the Wordwall quiz in Cycle II, is consistent with the mechanism described in these two studies, namely that direct, hands-on interaction with the medium—not merely its visual appeal—is what drives the increase in engagement.

To provide a more detailed overview of the development of increased student learning activity in thematic learning, the following table presents a summary of the data from the observation test results of student learning activity from the pre-cycle to cycle II. This table is arranged in a visual style that emphasizes direct comparisons between cycles for each student.

No	Student Initials	Pre-cycle Score	Shoes Siklus I	Cycle II Score
1	AP	60	15	25
2	WITH	58	25	25
3	A	54	25	25
4	IS	37	15	20
5	WORK	39	15	25
6	OF	41	25	25
7	AAA	59	25	25
8	WITH	45	25	25
9	AT	35	25	25
10	TWO	33	15	25
11	DZ	46	10	25
12	DN	55	15	25

13	DP	47	25	25
14	DM	44	25	25
15	NGA	42	10	25
16	GNP	50	15	25
17	GCM	57	10	25
18	HR	60	10	20
19	NAF	55	25	25
20	I	51	25	25
21	I	31	15	25
22	KPN	38	25	25
23	KRN	49	15	25
24	MRA	46	25	25
25	MLD	40	25	25

The use of interactive digital media in the form of smartboards plays a crucial and significant role in building and enhancing elementary school students' learning motivation (Alnurrohman et al., 2021). Thematic learning, accompanied by visualization, audio, and touchscreen interaction, provides powerful stimuli for the sensory and cognitive development of elementary school-aged children. In this study, the integration of Wordwall with smartboards was the key to success in cycle II, facilitating the need for game-based learning. This demonstrates that the adoption of educational technology is not merely about replacing conventional whiteboards with electronic screens; it also requires appropriate instructional design (pedagogical design) so that the technology's interactive features can be utilized to transform the learning environment into an active, dynamic, and participatory one (Purnama et al., 2021).

4. CONCLUSION

This classroom action research shows that student learning activeness in thematic learning at grade III of SDN 1 Anyar improved in two stages: an initial gain once the smartboard was introduced in Cycle I, followed by a larger gain once the smartboard was combined with an interactive, touch-based quiz in Cycle II. This pattern indicates that the smartboard's contribution to student engagement depended less on its presence as a display screen and more on the extent to which students could interact with it directly, a distinction that is useful for teachers planning to adopt similar digital media. The findings also suggest that a single cycle of implementation may not be sufficient to reach an optimal level of student engagement, and that reflecting on and adjusting the interaction design between cycles, as done here through the addition of the Wordwall quiz, plays an important role in sustaining students' active participation in thematic learning.

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