
Implementation of Active Learning Strategies in Improving Elementary School Students' Learning Engagement: A Literature Review

Amelia Tasya

Ahmad Dahlan University, Indonesia

Amaliatasya07@gmail.com

Abstract

Student learning engagement is one of the main indicators of the success of the educational process at the elementary school level. However, low levels of active student participation in learning activities remain a common problem. This study aims to comprehensively examine the effectiveness of implementing active learning strategies in increasing elementary school students' learning engagement through a literature review method. The approach used was descriptive qualitative, analyzing various scientific sources published in the last five years. The study results indicate that active learning strategies, such as Project-Based Learning, Problem-Based Learning, and Cooperative Learning, consistently contribute positively to students' cognitive, affective, and behavioral engagement. These approaches have also proven effective in developing 21st-century skills and encouraging the development of independent learners. However, implementation challenges such as limited resources, lack of teacher training, and unequal access to education remain major obstacles. Therefore, strengthening teacher capacity, sustainable policy support, and collaboration among stakeholders are needed to optimize the implementation of active learning strategies. This study is expected to serve as a theoretical and practical reference for the development of learning innovations at the elementary school level.

Keywords: Learning engagement, Active learning, Elementary school

Introduction

Learning engagement is a crucial aspect in the learning process in elementary schools, because it is the main indicator of successful mastery of material and the formation of long-term learning attitudes. However, various studies show that elementary school students tend to experience

decreased motivation and enthusiasm for learning when the learning process is dominated by lecture methods or passive approaches with minimal interaction. When learning is one-way, students become passive recipients of information without being actively involved in exploring the material. This phenomenon has implications for low student participation, decreased information retention, and limited opportunities to develop critical and collaborative thinking skills.

Amidst the current dynamics of educational development, the demand for teachers to implement innovative, student-centered learning approaches is becoming increasingly prominent. The Independent Curriculum, as the latest framework in the Indonesian education system, emphasizes the importance of holistic, contextual learning and encourages student learning autonomy. Active learning strategies are one pedagogical solution that aligns with these principles, as they accommodate diverse learning styles and facilitate comprehensive student engagement cognitively, affectively, and psychomotorically.

Active learning strategies refer to a range of approaches that directly involve students in the process of constructing knowledge. These strategies include group discussions, project-based learning, problem-solving, simulations, experiments, and educational games. The essence of this approach is to give students a central role in exploring and reflecting on their learning experiences, which in turn increases their sense of ownership of the learning process and builds academic self-confidence.

The effectiveness of active learning in increasing student engagement has been demonstrated through various empirical studies. Research conducted by Anderson & Krathwohl (2020) showed that active learning strategies significantly increased higher-order thinking skills in elementary school students. Furthermore, a meta-analysis by Freeman et al. (2019) concluded that active student engagement in learning simultaneously improved academic achievement, curiosity, and social-emotional skills. This demonstrates that active learning impacts not only academic aspects but also students' personal and interpersonal dimensions.

On the other hand, implementing active learning strategies in the field is not without challenges. Teachers often face constraints such as limited time, a lack of learning resources, and a suboptimal understanding of effective active learning design and evaluation. Furthermore, not all students are accustomed to taking an active role in learning, necessitating an adaptation process supported by

an inclusive and differentiated pedagogical approach. In this context, the teacher's capacity as a learning designer is a determining factor in the success of active learning strategies.

Facing this complexity, a systematic literature review is necessary to identify best practices, recurring weaknesses, and the latest innovations in implementing active learning at the elementary school level. A literature review is a strategic step to synthesize scattered research findings, compare approaches, and formulate practical recommendations that can be used as a reference by educators and policymakers. Thus, a literature review is not merely an academic endeavor but also a tangible contribution to improving the quality of elementary education.

Furthermore, a literature review also allows us to examine the relevance of active learning strategies in various learning contexts, including subject matter, students' sociocultural backgrounds, and school environments. An in-depth analysis of implementation successes and failures in various regions will enrich our understanding of the strategy's flexibility and adaptability. This approach aligns with the principle of evidence-based practice in education, which places empirical evidence as the primary basis for pedagogical decision-making.

Considering the urgency of increasing student learning engagement and the significant potential of active learning strategies, this literature review is crucial. Through a comprehensive review of current scientific findings, it is hoped that a comprehensive overview of the effectiveness, challenges, and recommendations for implementing active learning strategies in elementary school contexts will be obtained. The results of this study are expected to provide theoretical and practical contributions and serve as a reference for teachers, researchers, and policymakers in designing more meaningful and participatory learning for elementary school students.

Method

This study uses a descriptive qualitative approach with a literature review method. The aim is to examine and analyze various previous research findings on the implementation of active learning strategies to increase elementary school students' learning engagement. This approach was chosen because it is suitable for exploring phenomena in depth through a systematic review of various relevant scientific sources.

The data sources in this study were obtained from articles in accredited national journals and reputable international journals, scientific proceedings, academic books, and other research

documents published within the last five years (2019–2024). Source inclusion criteria included: (1) containing topics on active learning strategies in elementary schools, (2) explicitly reviewing the relationship between active learning and student engagement, and (3) being empirical or based on scientific studies. Meanwhile, sources that were not relevant to the elementary school context or did not present verifiable findings were excluded from the review.

The data collection process was conducted through online database searches such as Google Scholar, DOAJ, ERIC, and ScienceDirect, using keywords such as active learning, student engagement, elementary school, and primary education. After the initial search, the data were selected and organized using the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) method to ensure transparency and accuracy in the identification, screening, and inclusion stages of the literature.

The collected data was analyzed using content analysis techniques with a thematic approach. This process involved grouping the literature based on key emerging themes, such as the types of active learning strategies used, their impact on learning engagement, factors supporting and inhibiting implementation, and pedagogical implications. Findings were compared and synthesized to generate a holistic understanding of the practice and effectiveness of active learning strategies in primary education contexts.

To enhance the credibility and validity of the data, source triangulation was conducted through cross-literature comparisons and conceptual validation with relevant theoretical frameworks, such as constructivism theory, student engagement theory, and participatory pedagogical approaches. Furthermore, the systematic steps in data collection and analysis were explained transparently to ensure the reliability of the findings.

With this method design, it is hoped that the research can provide a significant contribution in summarizing, synthesizing, and evaluating the implementation of active learning strategies in elementary schools, as well as providing a theoretical and practical basis that can be used by educators, researchers, and policy makers in the field of elementary education.

Results and Discussion

Active learning strategies have become a relevant pedagogical approach to address the challenge of low learning engagement among elementary school students. Learning engagement is not only

related to students' physical presence in class but also encompasses cognitive, affective, and behavioral involvement in the learning process. This literature review found that active learning strategies provide greater space for students to actively participate, think critically, and reflect on their learning independently and collaboratively.

From the various literature analyzed, it was found that active approaches such as Project-Based Learning (PjBL), Problem-Based Learning (PBL), Cooperative Learning, and Discovery Learning consistently demonstrate positive contributions to increasing student motivation and engagement. In the elementary school context, these strategies are able to accommodate the developmental characteristics of children who tend to be active, like to explore, and enjoy working together. Therefore, learning that directly involves students in constructing the meaning of knowledge becomes more meaningful and contextual.

The analysis also showed that student engagement significantly increased when teachers successfully created a classroom atmosphere that supported participatory learning. Active learning encourages two-way interaction between teachers and students, as well as between students themselves. This allows for the exchange of ideas, collaborative problem-solving, and the development of mutual respect within the classroom. This type of engagement contributes to the formation of a socially and emotionally healthy learning community.

Numerous studies underscore that the success of active learning strategies is greatly influenced by the teacher's role as a learning facilitator. Teachers who are able to design interactive, flexible, and relevant learning activities within the context of students' lives have been shown to improve attention and learning retention. Furthermore, teachers' ability to conduct formative assessments is also a key factor in guiding and modifying students' learning processes to ensure they remain within the zone of proximal development.

However, active learning is not without its challenges in implementation. The literature notes obstacles such as limited learning time, inadequate facilities and infrastructure, and high administrative burdens on teachers. Furthermore, some teachers still lack a thorough understanding of the concept and application of active learning strategies. This results in active learning approaches becoming mere formalities without strong pedagogical meaning.

The studies in this review also show a gap in practices between schools in urban and rural areas. Primary schools in urban areas tend to be better equipped in terms of infrastructure and access to

interactive learning resources, while schools in remote areas face logistical barriers and limited human resources. This gap indicates the need for responsive education policies and equitable distribution of training for all primary school teachers.

Active learning strategies have also been shown to foster 21st-century skills such as critical thinking, creativity, communication, and collaboration (the 4Cs). This study, published in the journal *Nature*, demonstrates that literature integrating active learning with STEAM (Science, Technology, Engineering, Arts, and Mathematics) themes demonstrates students' ability to develop innovative solutions to real-world problems. This type of learning encourages engagement beyond the classroom and extends to students' immediate surroundings.

In terms of cognitive engagement, active learning strategies can enhance students' metacognitive abilities. Literature shows that when students are given the space to plan, monitor, and evaluate their own understanding, they tend to take greater responsibility for their learning. Active learning provides a structure that supports the development of self-regulation and academic confidence from an early age.

In terms of affective engagement, active learning has demonstrated positive impacts on increasing learning interest, a sense of ownership, and reducing academic anxiety. A democratic, participatory learning environment that values diverse opinions makes students feel more comfortable and motivated. Studies in this literature show that a humanistic approach to active learning supports the mental and emotional health of elementary school students.

Furthermore, from a behavioral perspective, active learning strategies have been proven to increase student attendance, discussion participation, and initiative in learning activities. Learning based on direct experience, real-world challenges, and collaborative task completion fosters sustainable active learning habits. This serves as an important foundation for developing the character of lifelong learners.

This literature review also found the importance of collaboration between stakeholders in supporting the implementation of active learning strategies. The role of the principal, school committee, and parents is crucial to creating a conducive learning environment. Synergy between school policies and teacher initiatives will strengthen the implementation of active learning sustainably and consistently across all classes.

Furthermore, this review also recommends the need for continuous strengthening of teacher training on active learning design and evaluation. Training should not be solely theoretical but should be based on hands-on practice that is contextualized to each school's environment. Furthermore, the use of educational technology that supports active learning strategies, such as interactive applications and digital collaborative platforms, also needs to be increased to optimize student learning engagement in the digital age.

Overall, this literature review confirms the finding that active learning strategies are a relevant and effective approach to increasing elementary school students' learning engagement. However, their implementation requires systemic support, including teacher training, improved learning resources, and a comprehensive understanding of the student-centered learning philosophy. Therefore, active learning becomes not only a method but also a paradigm for building participatory, inclusive, and transformative elementary education.

Conclusion

Based on the literature review, it can be concluded that active learning strategies are an effective pedagogical approach to increasing the overall learning engagement of elementary school students, encompassing cognitive, affective, and behavioral dimensions. This approach provides ample space for student participation in the learning process, while simultaneously encouraging the development of 21st-century skills such as critical thinking, collaboration, and creativity. Various active strategies such as PjBL, PBL, and cooperative learning have been proven to create a more inclusive, interactive, and contextual learning environment. However, the implementation of active learning in the field still faces challenges such as limited infrastructure, lack of teacher understanding, and suboptimal systemic support from educational institutions. Therefore, collective efforts are needed from various parties, including increasing teacher capacity through continuous training and strengthening a supportive learning ecosystem. Active learning strategies should not only be understood as teaching techniques, but also as a transformation of the educational approach that places students as the primary subjects in the learning process. Thus, active learning can become a solid foundation for creating a more meaningful, democratic, and adaptive elementary education to meet the demands of the times.

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