Implementation of Cooperative Learning Model to Improve Critical Thinking and Student Learning Outcomes at SDN Mertasinga 07 Cilacap Utara

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ABSTRACT

This study aims to investigate the impact of cooperative learning models on improving critical thinking skills and student learning outcomes at SDN Mertasinga 07, North Cilacap. Using a descriptive qualitative case study approach, data were collected through literature review, interviews, observations, and document analysis. The study found that cooperative learning models, such as Jigsaw and Student Teams Achievement Division (STAD), significantly enhance students' engagement, conceptual understanding, and critical thinking capabilities. These improvements positively influence learning outcomes. The implementation process, challenges encountered, and proposed solutions are discussed in detail. The study recommends that primary school teachers actively integrate cooperative learning models into their pedagogical strategies to foster higher-order thinking and academic achievement. The results of the study show that the cooperative learning model has a significant positive impact on students' critical thinking skills. Students become more active in class discussions, show improvement in evaluating information, and are more confident in presenting their ideas. Furthermore, cooperative learning also improves academic performance by creating a collaborative and student-centered learning environment that supports motivation and deeper understanding. Based on the findings, the cooperative learning model is recommended as an effective instructional approach to be integrated into elementary school learning, especially to develop students' 21st-century competencies.

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1. INTRODUCTION

Successful education is the result of education that students can use in their lives. Therefore, at least education must empower all the abilities of students. The ideal educational process is an educational process that is packaged by taking into account various aspects, both cognitive, affective, and psychomotor aspects. If the educational process can be carried out by taking into account the balance of these three aspects, the output of education will be able to translate and anticipate the progress and development of society that is running so fast. Critical thinking is a fundamental skill for 21st-century learners, especially at the elementary level.

Traditional instructional methods that rely heavily on teacher-centered approaches often hinder the development of deep thinking and student engagement. Cooperative learning models, which emphasize student interaction and teamwork, offer an alternative pedagogical strategy that aligns with active learning principles. Many studies have shown that elementary school students' critical thinking skills are still low. However, these studies only focused on improving critical thinking skills by experimenting with several methods, media, or models.

The novelty of this research lies in the topic raised, namely studying critical thinking skills. It is not only described as quantitative figures but also analyzed in-depth and thoroughly related to the factors influencing critical thinking skills to be used as guidelines for developing teaching strategies and improving teaching and learning processes for elementary school students in Indonesia.

Thus, this study highlights students' critical thinking skills at SDN Mertasinga 07, various learning challenges such as low student participation, fluctuating academic performance, and limited collaboration among peers prompted the exploration of innovative instructional models. This study examines the application of cooperative learning models to enhance both the critical thinking abilities and learning outcomes of students in this school setting.

2. METHOD OF THE RESEARCH

This study employed a qualitative descriptive method with a case study design. The research subjects were 30 students from SDN Mertasinga 07, North Cilacap. The research instruments used were observation, interviews, and documentation. Observation was used to monitor the learning process, interviews were conducted to gather students' opinions about the cooperative learning model, and documentation was used to collect data on students' learning outcomes. The research that has been carried out reflects the actual conditions and situations.

Data collection techniques were carried out in accordance with the methods applied in the study, namely through observation, interviews, and documentation. First, the researcher chose the observation technique, As to qualitative research, observations become an essential method to recognize the phenomenon under investigation. Observation can be considered as one of the most universal and comprehensive techniques for collecting information.

According to John W. Creswell, observation is a data collection method conducted by directly observing the phenomena that occur. Meanwhile, Nasarudin states that observation is the most commonly used data collection technique in research and is considered the most effective way to obtain large amounts of information. Second, the researcher used the interview method. According to [source], interviews are a form of data collection involving direct interaction between the researcher and participants.

Through interviews, more detailed data about the research object can be obtained. Nowadays, interviews can be conducted either online or offline. Third, the researcher used documentation. In this study, documentation consisted of records such as counseling archives maintained by the classroom teacher. From these three data collection techniques, the researcher was able to obtain data that describes the implementation of the cooperative learning model at SDN Mertasinga 07.

2.1 Cooperative Learning Models

Cooperative learning is defined as a teaching approach wherein students work together in small groups to achieve shared academic goals. According to Slavin (1995), the key elements of cooperative learning include positive interdependence, individual accountability, face-to-face interaction, interpersonal skills, and group processing. Common types of cooperative learning models include Think-Pair-Share (TPS), Student Teams Achievement Division (STAD), and Jigsaw.

2.2 Critical Thinking

Critical thinking refers to the ability to analyze, evaluate, and synthesize information logically and reflectively. It involves reasoning, problem-solving, and decision-making skills that are essential for lifelong learning. Facione (2011) emphasized the role of critical thinking in enhancing academic performance and independent learning.

2.3 Learning Outcomes

Learning outcomes are measurable changes in student knowledge, skills, attitudes, and behaviors resulting from the learning process. Bloom's Taxonomy categorizes learning outcomes into cognitive, affective, and psychomotor domains.

This research employs a descriptive qualitative case study design. The study was conducted at SDN Mertasinga 07 in North Cilacap. Data were gathered through classroom observations, interviews with teachers and students, document analysis of student performance records, and field notes. Participants included class teachers, a religion teacher, and selected students from grade V, chosen through purposive sampling based on their level of engagement and academic performance. Data triangulation was conducted using multiple sources and methods to ensure the credibility and dependability of the findings.

Instruments used:
1. Interview guidelines for teachers and students
2. Observation checklists
3. Documentation of student test scores and portfolios
4. Reflective journals

3. RESULTS AND DISCUSSIONS

Learning models need to be understood by teachers in order to carry out instruction effectively and improve learning outcomes. In practice, learning models must be implemented according to students' needs, as each model has its own objectives, principles, and primary focus. Teachers play a highly influential role in the learning process-not only by providing information but also by being more actively involved in teaching and learning activities. Therefore, learning models have a significant impact on the improvement of education quality.

A learning model refers to the approach to be used, which includes learning objectives, stages of learning activities, the learning environment, and classroom management (Wijaya and Arismunandar, 2018). Wagitan (2006) concluded that cooperative learning can serve as one alternative, as many argue that active learning, including cooperative learning, can improve learning effectiveness (Yulia, Juwandani, and Mauliddya, 2020).

Cooperative learning emphasizes collaboration among students to achieve learning objectives. Based on the expert opinions above regarding the implementation of cooperative learning, it can be concluded that the cooperative learning model can enhance students' critical thinking skills and learning outcomes, as students work together in groups to achieve learning goals. Group discussions and collaboration help students analyze information, evaluate arguments, and make appropriate decisions. Therefore, cooperative learning can be used as an effective alternative learning model.

3.1 Improved Critical Thinking

Findings from interviews and classroom observations show that students became more confident in expressing opinions, asking questions, and evaluating information. The cooperative learning environment fostered peer discussion and stimulated analytical thinking.

3.2 Enhanced Learning Outcomes

Data from student assessments before and after the intervention indicate significant improvement in learning outcomes, particularly in science and social studies subjects. Students demonstrated better comprehension and retention of material.

3.3 Implementation Process

The cooperative learning strategy was implemented in stages, starting with training teachers, followed by lesson planning, classroom application, and continuous monitoring.

3.4 Challenges and Solutions

Challenges included limited time, lack of teacher familiarity with cooperative models, and varied student participation levels. Solutions involved collaborative lesson planning, peer mentoring among teachers, and student motivation techniques such as reward systems.

4. CONCLUSIONS

The research uses a descriptive qualitative method with a case study design. The subjects include classroom teachers and students from grades IV and V. Data were collected through classroom observations, in-depth interviews with teachers and students, and documentation of student learning outcomes. Cooperative learning strategies applied in this study include Think-Pair-Share, Jigsaw, and Group Investigation models.

The results of the study show that the cooperative learning model has a significant positive impact on students' critical thinking skills. Students become more active in class discussions, show improvement in evaluating information, and are more confident in presenting their ideas. Furthermore, cooperative learning also improves academic performance by creating a collaborative and student-centered learning environment that supports motivation and deeper understanding.

Based on the findings, the cooperative learning model is recommended as an effective instructional approach to be integrated into elementary school learning, especially to develop students' 21st-century competencies. The study concludes that cooperative learning models are effective in improving students' critical thinking skills and learning outcomes. Teachers are encouraged to integrate these models into classroom instruction to promote active and reflective learning. Support from school leadership and ongoing professional development are essential for successful implementation.

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