

Application of Group Investigation Model to Improve Students' Social Studies Learning Outcomes

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Abstract

This research is motivated by the lack of student activity during the learning process and the use of less varied methods, which results in low learning outcomes. The aim of this study is to improve learning outcomes by using the Group Investigation model. The method used is Classroom Action Research (CAR), conducted in two cycles at SDN 88/II Sungai Mengkuang with 27 student participants during the odd semester of 2023. The results indicate an improvement in both the process and outcomes of learning with the implementation of the Group Investigation model. In Cycle I, activity increased from 48.1% to 59.2%, categorized as active. In Cycle II, the activity percentage increased from 70.3% to 85.1%, categorized as very active. This improvement was accompanied by an increase in student learning outcomes, where test results in Cycle I improved from 40.7% to 62.9% (Very Good) and in Cycle II improved from 74.0% to 88.8% (Very Good). Thus, it can be concluded that the Group Investigation model can enhance student learning outcomes and is considered relevant to current educational needs, thereby improving the quality of classroom learning.

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Introduction

In the current era, education has become a top priority in improving the quality of human resources so that Indonesia can become an advanced country. Education is a process of character formation aimed at developing a good personality and producing individuals who are intelligent and skilled in performing tasks according to their roles [1]. This is also explained in Law No. 20 of 2003, Article 1, on the National Education System, which states that education is a conscious and planned effort to develop the character and abilities of learners, and to prepare them for social life with spiritual strength, self-control, personality, intelligence, good morals, and the skills needed to achieve common goals. The aim is to improve student learning outcomes. It is hoped that by applying engaging models that consider student characteristics, this can encourage teachers to use these methods more frequently in teaching social studies, thus improving the quality of classroom learning.

The 2013 Curriculum, as a competency-based curriculum, emphasizes the development of character and the ability to perform tasks with certain standards, so that the results can be felt by the students [2]. The goal of this curriculum is to



develop better citizens in a democratic society, focusing on a balance between attitudes, skills, and knowledge, as well as holistic and enjoyable learning. One of the fundamental changes in this curriculum is the shift from rote-based learning to a science-based approach, where students become active subjects of learning.

Social Studies (IPS) is a subject taught in Elementary Schools (SD), focusing on human life and its environment. IPS plays a role in shaping knowledge, attitudes, and social skills to develop morally upright and good citizens. IPS is also part of the curriculum and education system in Indonesia, serving as a social education program in formal education. IPS is a study of social life and the environment, aimed at shaping personality and enhancing students' mastery of knowledge and skills [3]. Through IPS learning, students are expected to develop morality, character, and a deep understanding of social science concepts, enabling them to become good citizens. However, IPS learning in schools is often considered uninteresting, leading to a lack of interest among students. A lecture-based and conventional approach often makes students passive. An ideal learning process should actively involve students, providing opportunities for participation and creativity. The reality is that social studies learning is still largely teacher-centered, where the teacher dominates the class with lectures, and students become passive listeners. This situation negatively impacts student activity and learning outcomes, as observed at SDN 88/II Sungai Mengkuang. Observation data shows that the dominant lecture method leads to passive students, who are reluctant to ask questions and have a poor understanding of the material taught.

Good IPS learning should be conducted in an enjoyable manner, tailored to the characteristics of the students. Furthermore, learning should be student-centered to actively engage students in the learning process. Through IPS learning, Indonesian students can be shaped into individuals who balance intellectual knowledge with moral character, resulting in a generation that is intellectually and morally intelligent, based on religious emotions [4]. The IPS teaching and learning process in schools is generally considered unappealing, resulting in a lack of interest among students in studying IPS in depth. It is not easy for educators to present IPS material to students, as it requires careful planning and consideration. The teacher's role in the learning activity is also very strategic, as the teacher determines the depth and breadth of the subject matter, as well as selects and chooses the learning materials, methods, and media to be presented to students [5].

To address this issue, innovation in the teaching process is needed to make learning more active, participatory, and enjoyable. One model that can be implemented is the cooperative learning type Group Investigation (GI), which emphasizes the independent search for knowledge by students, with guidance from educators. Through this approach, it is hoped that students will become more engaged in the learning process and improve their learning outcomes.

Literature Review

Cooperative Learning is a method in which students learn and work together in small groups collaboratively, usually consisting of four to six members with heterogeneous membership [6]. This method not only enhances cooperative behavior and relationships among students but also develops their academic abilities [7]. Based on expert opinions, it can be concluded that cooperative learning



is a model that actively involves students in the learning process, allowing them to exchange ideas and thoughts. Cooperative learning is not the same as merely learning in groups; when implemented correctly, it enables educators to manage the classroom effectively. In cooperative learning, the learning process does not have to flow from the educator to the students; instead, students can teach and learn from one another. The characteristics of the cooperative learning model include students learning in groups, having a sense of mutual dependence, learning to interact cooperatively, and being trained to take responsibility for tasks [8]. This Cooperative Learning model can enhance learning outcomes, boost self-confidence, and increase motivation to learn. As a result, students can integrate and apply their knowledge and skills in their daily lives. The cooperative learning model is viewed as an active learning process because students learn more through constructing and creating, working in groups, and sharing knowledge, while individual responsibility remains key to successful learning. The Group Investigation learning model emphasizes student participation and engagement in independently searching for the lesson material (information) to be studied, using available resources such as textbooks or other sources [9]. This type requires students to have strong communication skills as well as group process skills. The Group Investigation cooperative learning model can be used by educators to develop students' creativity, both individually and in groups.

The cooperative learning model is designed to facilitate the sharing of responsibilities among students during the learning process and to orient them toward becoming social beings [10]. Additionally, the Group Investigation learning model also trains students to develop independent thinking skills. The active involvement of students can be observed from the first to the final stage of learning, as the educator acts as a facilitator and motivator rather than the sole source of information in the teaching and learning process. Students are placed in small groups each group assigned a different task or project. Within their groups, each member discusses and determines what information to gather, how to process it, how to research it, and how to present their research findings in front of the class. All members contribute to deciding the research topic that the students will pursue, and the students themselves decide how to divide the work. Throughout the research or investigation process, students are actively engaged during the learning process.

The explanation above clearly shows that the Group Investigation learning model is one of the models that educators can use as a tool to achieve maximum learning outcomes and reach the desired goals [11]. The steps of the Group Investigation learning model are as follows:

- 1) Identifying and Organizing: Identifying/selecting a topic and organizing students into groups (students review information sources, choose topics, and categorize suggestions: students join groups based on similar interests and heterogeneity: the teacher helps and facilitates information acquisition).
- 2) Cooperative Planning: Students and teachers plan learning procedures, tasks, and specific objectives according to the subtopics selected in the first stage.
- 3) Implementation: Students apply the plan developed in the second stage, with the teacher assisting group members who find problem-solving challenging.



- 4) **Analysis and Synthesis:** Students analyse the information obtained in the third stage and plan how to summarize and present it in an engaging way for presentation to the entire class.
- 5) **Final Presentation:** Some or all groups present their findings in an engaging manner to the entire class, with the aim of involving other students in each other's work and gaining a broader perspective on the topic. Presentations are coordinated by the teacher.
- 6) **Evaluation:** As groups handle different aspects of the same topic, students and teachers evaluate each group's contribution to the overall class work. Evaluation may involve individual or group assessments.

The efforts carried out by teachers as professionals are very complex, such as designing teaching materials, explaining the material, and providing guidance in the form of advice and motivation. As professionals, teachers must have the ability to evaluate themselves and their students, so that discipline and order are reflected in the learning process [12]. Therefore, to be a teacher, one must have a sense of responsibility, be disciplined with the entrusted tasks, and be capable of designing teaching materials according to the situations and conditions of the students in the classroom. Additionally, a teacher should be able to explain the teaching materials clearly and accurately, provide guidance in the form of advice and motivation, and avoid mixing social or family issues with their work. This can be considered as being a professional teacher. A professional teacher is able to design learning models according to the problems students face in school and also serve as an instructor, facilitator, and mediator in the classroom to help students find solutions to their problems [13].

Research Method

Classroom Action Research is an effort to find solutions to problems occurring in learning situations. This Classroom Action Research (CAR) is a type of action research aimed at improving the quality of teaching in the classroom [14]. This research was conducted in the odd semester of the 2023 academic year, specifically from December 21 to December 29, 2023. The approach used in this research involved creating a setting as natural as possible, allowing the researcher to interact directly, closely, and familiarly with the research subjects namely 16 male students and 11 female students. The design of the Classroom Action Research (CAR) in this study is as follows [15]:

A. Research Design

This research was conducted in two cycles, each consisting of four stages: planning, action, observation, and reflection. The research design used was the Group Investigation Model with the aim of observing the impact of this model through observation and reflection. Here is a diagram of the cycle



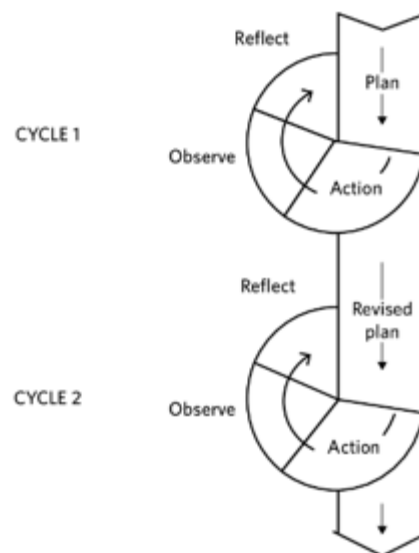


Figure 1. Research Design

B. Participants

In this study, the participants consisted of 27 fifth-grade students (16 boys and 11 girls) and the social studies teacher at SDN 88/II Sungai Mengkuang. This class was selected due to the problems identified that require gradual improvement. This was made possible by the willingness of the teachers to help ensure the success of this research, allowing for the collection of accurate and valid data

C. Intervention

The Group Investigation model is implemented over 4 weeks. In one cycle, there are 2 meetings. The first meeting in cycle 1 involves delivering material related to Social Studies learning, specifically human interaction with the surrounding environment using the Group Investigation model, while conducting observations using student and teacher observation sheets. The next meeting involves a test to assess learning outcomes. Then, in cycle 2, the first meeting involves delivering material on community activities in efforts towards socio-cultural development using the Group Investigation model, while conducting observations using student and teacher observation sheets. The second meeting involves administering a test to the students.

D. Data Collection

This data was collected using a combination of quantitative and qualitative methods, namely pre-test and post-test learning outcome tests to measure changes resulting from an educational treatment using the group investigation model. Additionally, observational data was gathered by examining the syntax of the Group Investigation model as recorded in the teacher and student observation sheets. This includes the steps of learning outlined in the instructional materials implemented by the teacher during the classroom learning process.

E. Data Analysis

Quantitative data can assess student learning outcomes using descriptive statistics to determine the percentage change between cycles,

namely cycle 1 and cycle 2, related to the impact of the Group Investigation model used by the teacher on the learning outcomes of students at SDN 88/II Sungai Mengkuang. Additionally, qualitative data from observations used during the research are analyzed thematically to identify teaching patterns, student engagement, teacher practices, and the impact of implementing the Group Investigation model.

Research Results

The research results were obtained through observation sheets (to observe the teaching and learning process by educators and students) and test questions. The implementation of learning in cycle 1 consisted of three stages: initial activities, core activities, and closing activities. The teacher and students carried out the learning process according to the lesson plan that had been prepared, but there were some activities that were not yet fully executed, resulting in several issues in cycle 1, which, thankfully, were successfully addressed.

The improvement in Social Studies (IPS) on the topic of Human Interaction with the Natural Environment and Social Environment using the Group Investigation model showed that before this method was implemented, only 6 students achieved the Minimum Completeness Criteria (KKM), while 21 students did not complete the requirements. Therefore, the researcher acted in cycle 1. The learning outcomes obtained in cycle 1 are as follows:

Table 1. Comparison of Learning Outcomes Cycle I

Number of Students	Meeting 1		Meeting 2	
27	Pass	Failed	Pass	Failed
	11	16	17	10
Average	40,7 %	59,2 %	62,9 %	37,0 %

Based on Table 1.2, there is an improvement observed in Cycle I at each meeting. In Meeting 1, only 11 students (40.7%) achieved completion, which was categorized as insufficient, while 16 students (59.2%) did not complete it. However, in Meeting 2 of Cycle I, the number of students who completed the work increased to 17 (62.9%), categorized as fair, and 10 students (37.0%) had not yet completed it out of a total of 27 students. According to the Minimum Completeness Criteria (KKM) set at SDN 88/II Sungai Mengkuang, students are considered to have completed the work if their individual scores reach at least 75. Therefore, the evaluation results for Cycle I did not meet the success indicator of $\geq 75\%$, and the classroom action research was continued to Cycle II.

The reflection phase was conducted after the analysis of the first meeting, where the IPS learning activities with the Group Investigation model in Class V.A of SDN 88/II Sungai Mengkuang had not yet met the expected standards. This was evident from the observation sheets and the students' learning outcomes, which did not meet the success indicators. There were several shortcomings on the part of the educator, such as difficulties in managing students who were often noisy, the educator still being awkward, and a lack of guidance in the learning process. On the other hand, the students had shortcomings including a low ability to ask and answer questions, disorderliness, and many students joking around during lessons. Some students were also still afraid to present discussion results in front of the class and relied solely on their group. Additionally, students felt bored and less active,



resulting in test scores, observation sheets, and learning outcomes not meeting the success indicators.

In the reflection phase of the second cycle, almost all the obstacles and difficulties encountered in the first cycle were successfully addressed. Students became more cooperative, more confident in expressing their opinions, and more enthusiastic about participating in the IPS learning process. Students also enjoyed the learning more because they found the group learning with the Group Investigation model to be more enjoyable and easier to understand. Although some students still did not meet the success indicators, the increase in activity and learning outcomes in the second cycle was significantly better compared to the first cycle. This is evident from the results of the activity sheets and learning outcomes of the students in each cycle.

Table 2. Comparison of Learning Outcomes in Cycle II

Number of Students	Meeting 1		Meeting 2	
	Pass	Failed	Pass	Failed
27	20	7	24	3
Average	74,0 %	25,9 %	88,8 %	11,1 %

Based on Table 1.3, there was a significant improvement in each meeting during Cycle II. In Meeting 1, 20 students (74.0%) achieved mastery, categorized as good, while 7 students (25.9%) had not yet mastered the material. However, after Meeting 2 in Cycle II, the number of students who achieved mastery increased to 24 (88.8%), categorized as very good, with only 3 students (11.1%) still not mastering the material out of a total of 27 students. According to the Minimum Completion Criteria (KKM) set at SDN 88/II Sungai Mengkuang, students are considered to have achieved mastery if they reach an individual mastery score of at least 75 and meet the success indicator of 75%. Thus, the evaluation results in Cycle II have met the established success indicators.

Based on the results obtained in Cycle II, it is evident that students' learning outcomes have improved and fall into the good category. After reflecting on Cycle II, the researcher and the observer decided to terminate the research actions in Cycle II, as the previously set success indicators were achieved, and the students' learning outcomes had been met.

The results of the research in Cycles I and II at SDN 88/II Sungai Mengkuang show that the use of the Group Investigation model can enhance both the process and learning outcomes of students in Social Studies. Before using the Group Investigation model, student mastery only reached 22.2% of those meeting the KKM, while 77.7% of students were still below the KKM. After implementing the Group Investigation model, mastery increased from 22.2% to 62.9% of students meeting the KKM, although 37.0% of students still had not reached the KKM. Although there was improvement in Cycle I, the minimum mastery of $\geq 75\%$ had not yet been achieved, so the research continued into Cycle II. In Cycle II, after improvements were made, the mastery score of students increased from 74.0% to 88.8%, or 24 students achieving the KKM. The results show improvement in each cycle. Overall, the percentage of mastery in each cycle can be seen in the table below.

Table 3. Student Learning Outcomes

Number of Students	Pre Cycle	Cycle 1	Cycle 2
27	6	17	24
Average	22.2%	62.9%	88.8%

The students' learning outcomes, as shown in table 2, indicate an improvement in each cycle. Before the research was conducted, the completion rate of learning was only 22.2%. After the research was carried out, in Cycle 1, the students' completion rate increased to 62.9%, or 17 students, which is categorized as fairly good. Then, in Cycle II, the completion rate further increased to 88.8%, or 24 students, which is categorized as very good according to the established indicator ($\geq 75\%$). This research shows that the application of the Group Investigation model is effective in improving students' learning outcomes in Social Studies, as evidenced by the increased learning outcomes in each cycle.

Conclusion

Based on the research results, the implementation of the Group Investigation model can improve the learning activity and process of fifth-grade students at SDN 88/II Sungai Mengkuang in social studies (IPS). The increase in the percentage of learning activity in the first cycle showed good/active participation with a percentage of 59.2%, while in the second cycle it showed very good/active participation with a percentage of 85.1%. The students' learning outcomes in social studies in the first cycle reached a percentage of 62.9% with a "Fairly Good" category, or 17 students who were considered to have mastered the material. In the second cycle, the students' learning outcomes reached a percentage of 88.8% with a "Very Good" category, or 24 students who were considered to have mastered the material. The advantage of this research using Group Investigation (GI) is that it is expected to improve students' learning outcomes in social studies because this method accommodates various learning styles and enhances students' understanding. Through this research, it is hoped that future studies can be tested on a broader student population to determine the effectiveness of the model on specific topics in social studies and explore how technology can be integrated into the Group Investigation model to further enhance student learning outcomes. It is important to involve teachers more intensively, with the hope of providing training to teachers to implement this model effectively in the classroom.

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