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# The Effect of the Group Investigation Learning Model on Improving History Learning Outcomes for Grade XI Students at SMA Negeri 1 Purba 2023/2024 Academic Year

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**ABSTRACT**

This study aims to determine the effect of the Group Investigation learning model on improving the history learning outcomes of Grade XI students at SMA Negeri 1 Purba during the 2023/2024 academic year. The Group Investigation model is a cooperative learning approach that actively engages students in processes such as inquiry, information gathering, group discussion, and the presentation of investigation results. The implementation of this model is expected to enhance student engagement, collaboration, critical thinking skills, and comprehension of historical material. This study employs a quantitative approach using an experimental method. The population consists of all Grade XI students at SMA Negeri 1 Purba for the 2023/2024 academic year, with the sample selected based on the study's sampling technique. Data collection was conducted through learning outcome tests and documentation. The collected data were analyzed using statistical techniques to assess the impact of the Group Investigation learning model on students' history learning outcomes. The study is expected to demonstrate that implementing the Group Investigation learning model positively influences the improvement of students' history learning outcomes. Consequently, this learning model offers an alternative for teachers to create a history learning process that is active, collaborative, and student-centered.

**Key Words:** *Group Investigation, learning outcomes, history learning.*

## 1. INTRODUCTION

Education is a vital aspect of human life, playing a key role in developing an individual's knowledge, skills, attitudes, and personality. Through education, individuals are expected to navigate the various changes and challenges inherent in life within society, the nation, and the state. Education also plays a strategic role in cultivating high-quality human resources—individuals who possess strong character and creativity, and who are capable of critical thinking. Consequently, the educational process must be implemented in a planned and continuous manner, taking into account the needs of learners as well as advancements in science and technology.

A crucial component of education is the learning process itself. Learning involves interaction among teachers, students, and learning resources within a specific environment, all aimed at achieving established educational goals. Success in learning is not determined solely by a teacher's mastery of the subject matter; it is also influenced by the methods, models, media, and strategies employed, as well as by student engagement throughout the process. Teachers are expected to create a learning atmosphere that is conducive and engaging, encouraging active student participation. Thus, learning focuses not merely on the delivery of content, but also on fostering students' thinking abilities, attitudes, and skills.

History is one subject that plays a significant role in shaping students' knowledge and character. History education aims not only to familiarize students with past events but also to help them understand the connections between the past, the present, and potential future developments. Through the study of history, students can develop historical awareness, understand the values inherent in past struggles, appreciate diversity, and derive lessons from human experiences throughout history. By studying history, students are expected to cultivate a critical mindset, appreciate the contributions of national figures, and foster a sense of responsibility toward life in society and the nation.

Nevertheless, the teaching of history often faces implementation challenges. Historical content—encompassing various events, figures, locations, timeframes, and cause-and-effect relationships—can easily be perceived as material requiring rote memorization if the learning process focuses exclusively on the transmission of information from teacher to student. This situation potentially leads to students being less engaged in the learning process, less active in expressing their opinions, and struggling to grasp the meaning of and connections between historical events. Therefore, a learning model is needed that encourages students not merely to memorize historical facts but also to seek information, analyze sources, engage in discussion, and articulate their thoughts systematically.

Learning outcomes serve as an indicator for assessing the success of the learning process. They reflect changes in students' capabilities following instruction—encompassing knowledge, skills, and attitudes relevant to the learning objectives. In history education, learning outcomes are demonstrated by students' ability to comprehend historical concepts, identify significant events, explain cause-and-effect relationships, compare historical information, and draw conclusions based on available evidence. Positive learning outcomes are expected to be achieved through an effective learning process, the use of appropriate learning models, and active student participation.

To achieve optimal learning outcomes, teachers need to consider using instructional models that align with the characteristics of the subject matter and the needs of the students. Models that are overly teacher-centered can limit opportunities for students to develop independent learning skills and the ability to collaborate. Conversely, instruction that allows students to seek information, engage in discussions, solve problems, and present their work can create a more meaningful learning experience. Thus, the selection of an instructional model is a crucial factor in efforts to improve the quality of history education.

One model that can be employed is Group Investigation. Group Investigation is a cooperative learning model that positions students as active participants in the process of investigating a specific topic or issue. In this model, students work in groups to define the focus of their study, plan investigative activities, gather information from various sources, analyze that information, compile reports, and present their findings to other groups. The teacher acts as a facilitator, guiding the learning process, helping students overcome challenges, and ensuring that the investigation aligns with learning objectives.

Implementing the Group Investigation model in history lessons has the potential to enhance the quality of the learning process. Through investigative activities, students have the opportunity to explore historical events in greater depth. Rather than merely receiving information from the teacher or textbooks, students learn to identify relevant information, compare sources, express opinions, and formulate conclusions based on group discussions. These activities help students develop critical thinking, communication, responsibility, and teamwork skills. Furthermore, the division of tasks within groups allows each student to contribute according to their abilities and responsibilities.

The Group Investigation model also aligns with educational needs that prioritize student participation. In practice, students are involved from the initial planning stage through to the presentation of their findings. This level of engagement is expected to foster curiosity and a sense of responsibility regarding the learning process. When students are directly involved in seeking and processing information, they are more likely to gain a deeper understanding than they would simply by listening to explanations. Nevertheless, the successful implementation of this model remains contingent upon the teacher's classroom management skills, the availability of learning resources, the distribution of group tasks, time allocation, and the students' readiness to engage in collaborative learning.

SMA Negeri 1 Purba serves as the research setting for examining the implementation of the Group Investigation learning model in history lessons for Grade XI students during the 2023/2024 academic year. This study stems from the need to determine whether the use of this learning model influences students' history learning outcomes. Instructional issues regarding student engagement, participation in discussions, comprehension of the material, and academic achievement require examination based on actual conditions at the school. Therefore, problem identification and preliminary data collection are crucial steps to ensure the research is grounded not merely in assumptions, but in facts observed during the learning process.

The use of the Group Investigation learning model requires systematic study to determine its effectiveness within the context of history instruction for Grade XI students at SMA Negeri 1 Purba. Such research is crucial because a learning model that proves effective in one class does not necessarily yield the same results in another class or school; factors such as student characteristics, the subject matter, learning conditions, and the implementation of investigative activities can all influence the outcomes. By conducting this research, the impact of the model on student learning outcomes can be analyzed using data gathered through appropriate research instruments.

Given these considerations, it is necessary to investigate the effect of the Group Investigation learning model on improving students' history learning outcomes to obtain empirical evidence regarding the relationship between the model's implementation and student achievement. The findings are expected to provide teachers with insights when considering alternative history learning models that foster greater student engagement and collaboration. Furthermore, this study aims to serve as a reference for other researchers interested in exploring cooperative learning models and history learning outcomes. Consequently, the researcher is motivated to conduct a study titled "The Effect of the Group Investigation Learning Model on Improving History Learning Outcomes for Grade XI Students at SMA Negeri 1 Purba in the 2023/2024 Academic Year."

Problem Formulation

Based on the background of the problem previously outlined, the problem formulation for this study is as follows:

1. How is the Group Investigation learning model implemented in history lessons for Grade XI students at SMA Negeri 1 Purba during the 2023/2024 academic year?
2. What are the history learning outcomes of Grade XI students at SMA Negeri 1 Purba during the 2023/2024 academic year before and after the implementation of the Group Investigation learning model, given a pre-test and post-test measurement design?
3. Is there a significant effect of implementing the Group Investigation learning model on the history learning outcomes of Grade XI students at SMA Negeri 1 Purba during the 2023/2024 academic year?

These problem formulations are designed to examine the implementation of the learning model, describe student learning outcomes, and test the effect of the Group Investigation model based on research data. The second problem formulation may be adjusted according to the specific research design employed; if the study involves both an experimental class and a control class, a comparison of learning outcomes between the two classes should be included in the problem formulation.

Research Objectives

Based on the problem formulations above, the objectives of this study are as follows:

To describe the implementation of the Group Investigation learning model in history lessons for Grade XI students at SMA Negeri 1 Purba during the 2023/2024 academic year.

1. To determine the history learning outcomes of Grade XI students at SMA Negeri 1 Purba during the 2023/2024 academic year before and after the implementation of the Group Investigation learning model, using pre-test and post-test measurements.
2. To determine and analyze the effect of implementing the Group Investigation learning model on the history learning outcomes of Grade XI students at SMA Negeri 1 Purba during the 2023/2024 academic year.
3. In general, this study aims to obtain empirical evidence regarding the effect of the Group Investigation learning model on students' history learning outcomes. The research findings are expected to serve as a basis for consideration when selecting appropriate learning models to enhance student engagement and support the achievement of history learning objectives.

## 2. RESEARCH METHODS

A. Research Type and Design

The research titled "The Effect of the Group Investigation Learning Model on Improving History Learning Outcomes for Grade XI Students at SMA Negeri 1 Purba in the 2023/2024 Academic Year" employs a quantitative approach using an experimental method. A quantitative approach is utilized because the study aims to determine the impact of implementing the Group Investigation learning model on improving students' history learning outcomes through the collection of numerical data analyzed using statistical techniques. Quantitative research enables the researcher to obtain an objective overview of the differences in student learning outcomes before and after the implementation of the learning model.

The experimental method was selected because the researcher administered a treatment—specifically the implementation of the Group Investigation learning model—during history lessons. This model was applied to determine whether there was an improvement in student learning outcomes after participating in a learning process that involved investigation, group discussion, information gathering, material analysis, and the presentation of findings. Through this method, the researcher can compare student learning outcomes before and after the treatment.

The research design employed is a Pre-Experimental Design, specifically the One-Group Pretest-Posttest Design, as the study utilizes only a single class as the experimental group without a control class. In this design, students are given an initial test (pretest) to assess their baseline abilities prior to the implementation of the Group Investigation learning model. Subsequently, students undergo instruction using the model and are administered a final test (posttest) to measure learning outcomes following the treatment.

The research design can be illustrated as follows:

Stage

Treatment

Pretest ($O_1$)

Initial test of history learning outcomes prior to treatment

Treatment (X)

History instruction using the Group Investigation model

Posttest ($O_2$)

Final test of history learning outcomes following treatment

Thus, the research design can be expressed as $O_1 – X – O_2$. The difference between the pretest and posttest scores is used to observe changes in student learning outcomes following the implementation of the Group Investigation learning model. However, a single-group design is not sufficiently robust to confirm that all changes in learning outcomes are solely attributable to the learning model. If two comparable classes are available, a quasi-experimental design involving an experimental group and a control group may be considered to obtain stronger evidence of the effect.

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B. Research Location and Timing

This research was conducted at SMA Negeri 1 Purba, Simalungun Regency, North Sumatra Province. The research location was selected based on the alignment between the research problem and the history learning activities at the school. The study focused on Grade XI students, as this group was the target for implementing the Group Investigation learning model to improve history learning outcomes.

The research timeline was aligned with the academic calendar and the history lesson schedule for the 2023/2024 academic year. The research process comprised several stages: preparation, instrument development, pre-test administration, implementation of the learning model, post-test administration, data collection, and analysis of research results. Since the 2023/2024 academic year has concluded, if this study has already been carried out, the dates and activity stages must be adjusted to reflect the actual records of the research implementation.

C. Research Population and Sample

The population consists of the entire set of subjects possessing specific characteristics relevant to the research objectives. In this study, the population comprised all Grade XI students at SMA Negeri 1 Purba during the 2023/2024 academic year. This population was defined to ensure the research focused on the specific group of students participating in history lessons at the designated grade level.

The sample represents a subset of the population serving as the research subjects. Sample selection was determined based on actual conditions at the school, the number of Grade XI classes, the number of students, and technical considerations regarding the implementation of instruction. If a single class is used as the experimental group, purposive sampling may be employed, taking into account class characteristics and research requirements. If all students in a designated class are involved, the entire class constitutes the research sample.

However, the sampling technique must align with the actual research circumstances. If a class is selected via a lottery from among several classes meeting the criteria, cluster random sampling may be used. The sample size and the classes involved must be reported based on school data rather than researcher estimates. Information regarding the population and sample sizes must be presented clearly so that the research can be understood and scientifically justified.

D. Research Variables

This study involves two primary variables: the independent variable and the dependent variable. The independent variable is the Group Investigation learning model (X), while the dependent variable is the students' history learning outcomes (Y).

The Group Investigation learning model is a cooperative learning approach that positions students as active participants in the process of seeking and processing information. Students work in groups to determine the focus of the inquiry, gather information from relevant sources, analyze the material, compile reports, and present their investigation results. The implementation of this model is expected to enhance student participation, responsibility, critical thinking skills, and understanding of the history subject matter.

Meanwhile, history learning outcomes refer to the achievements attained by students after participating in the history learning process. In this study, learning outcomes are measured using a test designed based on the learning objectives and the material taught. Pretest scores indicate the students' initial proficiency, whereas posttest scores reflect their proficiency after undergoing instruction using the Group Investigation model. The difference between these scores serves as the basis for measuring changes in the students' learning outcomes.

E. Research Implementation Procedure

The research is conducted through several systematically arranged stages to ensure data collection aligns with the research objectives.

1. Preparation Stage

During the preparation stage, the researcher conducts an initial observation of history lessons at SMA Negeri 1 Purba. This observation aims to gain an overview of the learning environment, student characteristics, the material being taught, and the teaching methods typically employed by the teacher. The researcher then develops instructional materials comprising learning objectives, historical content, the steps of the Group Investigation model, and learning outcome test instruments.

Research instruments are designed based on the learning indicators to be achieved. Subsequently, the researcher seeks input from the history teacher or relevant experts to evaluate the alignment of the materials and instruments with the learning objectives. Where feasible, the instruments are pilot-tested on students outside the research sample who share similar characteristics to determine item validity, reliability, difficulty level, and the discriminating power of the questions.

2. Pretest Implementation Stage

Before the intervention is administered, students take a pretest to assess their initial understanding of the historical material serving as the research focus. The test is administered with uniform instructions, time allocation, and completion guidelines for all

participants. Pretest results are recorded as baseline data to be compared with post-intervention test results.

3. Group Investigation Model Implementation Stage

During the intervention stage, history lessons are conducted using the Group Investigation model. The teacher acts as a facilitator, guiding investigation activities, providing support, and ensuring all students are engaged in the learning process. The model is implemented through the following steps:

First, students identify the historical topic or issue to be studied. The teacher provides an introduction to the material and assists students in formulating investigable questions. Second, students form groups and devise an investigation plan, covering task allocation, information sources to be used, and the specific aspects of the material to be examined. Third, each group conducts an investigation by gathering information from textbooks, reading materials, historical documents, or other reliable learning sources. Fourth, students discuss and analyze the collected information to identify cause-and-effect relationships, changes, continuities, and the significance of historical events in relation to the learning material.

Fifth, each group compiles a report on their investigation findings and presents it to the class. Other groups are given the opportunity to ask questions, provide feedback, and express their opinions. Sixth, the teacher and students conduct an evaluation and summarize the learning material. Through these activities, students are expected not merely to memorize historical facts but also to understand and analyze historical events in greater depth.

4. Post-test Implementation Stage

Once the entire sequence of interventions is complete, students take a post-test using an instrument equivalent to the pre-test in terms of content, indicators, difficulty level, and scoring system. The final test aims to assess student learning outcomes following instruction using the Group Investigation model. Post-test scores are then compared with pre-test scores to observe changes in learning outcomes.

5. Data Collection and Processing Stage

In the final stage, the researcher collects the pre-test and post-test results, checks for the completeness of answers, assigns scores based on the assessment rubric, and organizes the data into tables. The data is subsequently analyzed statistically to determine the average learning outcomes before and after the intervention and to test the research hypothesis.

F. Data Collection Techniques

The data collection techniques in this study include tests, observation, and documentation.

1. Tests

Tests serve as the primary technique for obtaining data on students' history learning outcomes. Testing is conducted twice: a pre-test before the intervention and a post-test after the intervention. The test format may consist of multiple-choice questions or a combination of multiple-choice and essay questions, aligned with learning indicators. Test scores are used to measure students' ability to comprehend the history material.

2. Observation

Observation is conducted to monitor the implementation of instruction using the Group Investigation model. Aspects observed include student participation within groups, task allocation, active engagement in discussions, use of information sources, collaboration, and the ability to present investigation results. Observational data serve as supporting information to describe the process of the intervention's implementation.

3. Documentation

Documentation is used to gather supporting information, such as student rosters, the number of Grade XI students, the school profile, instructional materials, grade records, photographs of learning activities, and other relevant documents. Documentation is accessed with school permission while ensuring the confidentiality of student data.

G. Data Analysis Techniques

Research data are analyzed using both descriptive and inferential statistics. Descriptive statistics are used to describe student learning outcomes before and after the intervention by calculating the mean, maximum score, minimum score, and standard deviation. The mean score is calculated using the following formula:

[
\bar{X}=\frac{\sum X}{N}
]

Where:

(\bar{X}) = mean student score.

(\sum X) = sum of all student scores.

(N) = number of students taking the test.

Furthermore, the improvement in learning outcomes can be analyzed by calculating the difference between the post-test and pre-test means. If necessary, the relative improvement against the maximum possible score can be analyzed using the normalized gain (N-gain) method, taking into account the suitability of its application regarding the characteristics of the instrument and the research data. Before conducting parametric hypothesis testing, the researcher checks the necessary statistical assumptions. In a single-group design involving pretest and posttest data from the same students, the normality of the score differences is a crucial consideration. If the required assumptions are met, a paired-samples t-test may be used. If the assumption of normality regarding score differences is not met, the Wilcoxon signed-rank test can be employed as a non-parametric alternative.

The statistical hypotheses are formulated as follows:

$H_0$: There is no significant difference in students' history learning outcomes before and after the implementation of the Group Investigation learning model.

$H_a$: There is a significant difference in students' history learning outcomes before and after the implementation of the Group Investigation learning model.

Decision-making is based on the significance value at a 5% error level ($\alpha = 0.05$). If the significance value is less than 0.05, $H_0$ is rejected and $H_a$ is supported. Conversely, if the significance value is equal to or greater than 0.05, $H_0$ cannot be rejected. The direction of the difference must be determined by examining the mean pretest and posttest scores to ascertain whether the observed change represents an increase or a decrease.

## 3. RESULTS AND DISCUSSION

Implementation of the Group Investigation Learning Model in History Instruction

The Group Investigation learning model is a cooperative learning approach that emphasizes active student involvement in the learning process through group-based inquiry activities. This model offers students the opportunity to participate in selecting the topics to be studied, gathering information, discussing issues, analyzing sources, and presenting their investigation findings. In history instruction, the Group Investigation model is particularly relevant because historical material requires students not only to memorize names, dates, and events but also to understand cause-and-effect relationships, change, continuity, and the significance of events in societal life.

The implementation of the Group Investigation model for Grade XI students at SMA Negeri 1 Purba during the 2023/2024 academic year aims to create a learning environment that is more active, collaborative, and student-centered. Throughout the learning process, the teacher acts not merely as a source of information but as a facilitator guiding students in their inquiry into historical material. Students are given the opportunity to exchange views, ask questions, seek out information sources, and formulate conclusions based on their group discussions.

The execution of the Group Investigation model begins with an introduction to the material and the identification of the specific topics or issues to be studied. Subsequently, students are divided into groups to plan their investigation activities and allocate tasks according to the group's needs. Each group member is responsible for researching and processing information related to the topic under study. The gathered information is then discussed collectively to achieve a deeper understanding of the historical material.

The investigation phase is a crucial component, as it trains students not simply to receive information from the teacher but to actively discover and comprehend information through structured learning activities. For instance, when studying a historical event, students can identify the event's background, the figures involved, the sequence of events, the resulting impacts, and the values that can be derived from the event. Consequently, history instruction becomes more meaningful, as students are directly engaged in the process of constructing knowledge. Once the investigation concluded, each group presented its findings to the class. Other groups could offer questions, feedback, or opinions regarding the presented results. This activity provided students with the opportunity to practice communication and critical thinking skills, learn to respect the views of others, and take responsibility for their group's work. The teacher then reinforced the material learned and corrected any misconceptions.

Implementing this learning model also helps foster a sense of cooperation and responsibility among students. In group activities, the successful completion of a task relies not on a single individual, but on the involvement of all members. Consequently, every student must contribute to gathering information, participating in discussions, compiling reports, and presenting the investigation results. However, the effectiveness of the implementation ultimately depends on classroom management, the equitable

distribution of tasks, the availability of learning resources, and the teacher's ability to guide the students.

Students' History Learning Outcomes Prior to the Implementation of the Group Investigation Model

Learning outcomes serve as an indicator for assessing students' success in the learning process. In history education, these outcomes reflect students' ability to comprehend historical facts, explain cause-and-effect relationships, identify key figures and events, and draw conclusions based on the material studied. In this study, learning outcomes were measured using an initial test—or pretest—administered before the implementation of the Group Investigation learning model.

The pretest aimed to assess the baseline proficiency of Grade XI students at SMA Negeri 1 Purba prior to the intervention. The results provide an overview of the students' existing mastery of historical material and serve as a benchmark for comparison against results obtained after the learning model's implementation. Pretest data also help identify specific aspects of the material that require further attention during the instructional process.

In learning environments that offer limited opportunities for active student engagement, students may struggle to grasp material containing extensive information, concepts, historical figures, and complex interrelationships between historical events. If instruction relies heavily on teacher explanations and note-taking, students may receive information directly but often lack adequate opportunities to discuss, interpret, and deeply connect various historical facts.

However, the level of students' initial learning outcomes—whether low or high—cannot be determined based on assumptions alone; it must be substantiated by the pretest results obtained during the study. Consequently, the discussion regarding students' initial proficiency requires supporting data, such as average scores, highest and lowest scores, the number of students meeting mastery criteria, and the actual distribution of scores.

Pretest results play a crucial role in the study, as they provide the foundation for evaluating changes in learning outcomes following the intervention. By comparing initial and final test results, the researcher can gain insight into how students' mastery of historical material evolves after participating in lessons using the Group Investigation model.

Student History Learning Outcomes Following the Implementation of the Group Investigation Model

Student learning outcomes following the implementation of the Group Investigation learning model were measured via a post-test. This test aimed to assess the students' level of mastery regarding historical material after participating in learning activities that involved group investigation, discussion, information gathering, material analysis, and the presentation of investigation findings.

Theoretically, implementing the Group Investigation model has the potential to improve learning outcomes because students are directly involved in the process of seeking and processing information. Students do not merely listen to teacher explanations; they also have the opportunity to develop their understanding through questioning, discussion,

comparing information, and formulating conclusions. Such activities help students build a deeper understanding of historical material.

Group investigation activities also facilitate the exchange of knowledge among students. Students who have grasped the material can help explain it to group members who are still struggling. Conversely, questions from other group members can prompt students to re-examine their own understanding and seek more accurate explanations. This interactive process has the potential to strengthen subject mastery while simultaneously developing communication and collaboration skills.

Furthermore, presenting investigation findings gives students the opportunity to restate the information they have learned using their own words. Explaining material to others helps students organize their knowledge, identify key information, and correct any misconceptions. In history education, these skills are crucial, as students must understand the interrelationships between facts, chronologies, key figures, causes, and the consequences of events.

However, the success of the Group Investigation model depends on more than just the use of the model itself. Teachers must ensure that every group member participates in learning activities rather than relying solely on the most active students. Clear task allocation, the use of relevant information sources, the supervision of discussions, and the evaluation of group work are all vital factors in maintaining learning effectiveness.

Consequently, post-test results must be analyzed objectively to determine whether the model's learning potential is truly reflected in student achievement. If the post-test score is higher than the pre-test score and the difference is statistically significant, the result serves as evidence of an improvement in learning outcomes following the implementation of the Group Investigation learning model in the group under study.

The Effect of the Group Investigation Learning Model on Improving Students' History Learning Outcomes

The primary focus of this study is the effect of the Group Investigation learning model on improving history learning outcomes. To determine this effect, students' pretest and posttest results are compared based on the change in scores obtained before and after the intervention. The analysis considers average scores, score differences, and hypothesis testing results aligned with the research design.

Improvements in learning outcomes can occur because the Group Investigation model allows students to play an active role in the learning process. Investigation activities encourage students to seek information, comprehend material through discussion, connect historical facts, and articulate their thoughts. Such engagement fosters more meaningful learning compared to activities that merely emphasize the passive reception of information.

From the perspective of cooperative learning, group work facilitates learning through social interaction and the exchange of ideas. Each student has the opportunity to express opinions, ask questions, and explain the material under discussion. These interactions enable students to gain diverse perspectives and refine their understanding of historical issues. However, these benefits are maximized when groups are well-managed and all members are assigned clear responsibilities.

The Group Investigation model also aligns with the nature of history education, which demands analytical thinking skills. When studying history, students must understand that events do not occur in isolation but are linked to the social, political, economic, and cultural conditions of the time. Through investigation activities, students learn to identify connections between facts, pinpoint causal factors, explain the consequences of events, and draw conclusions based on the information gathered.

If the analysis reveals that the average posttest score exceeds the average pretest score and statistical tests indicate a significant difference, the findings support the hypothesis that implementing the Group Investigation model contributes to improved history learning outcomes for students. Conversely, if the difference in test results is not significant, the researcher needs to consider various factors that might influence the outcome, such as the duration of the treatment, the difficulty level of the material, student participation, the suitability of the test instrument, and the implementation of instruction.

It is important to note that if the study employs a single-group design without a control class, an increase in scores from pre- to post-treatment does not conclusively prove that the Group Investigation model was the sole cause of the change. Other factors—such as prior learning experiences, practice exercises, and supplementary learning activities—can also influence learning outcomes. Therefore, the interpretation of the research findings must align with the study design and the available empirical evidence.

Based on the foregoing, the Group Investigation learning model possesses a pedagogical foundation relevant to history instruction. This model integrates inquiry, discussion, collaboration, and presentation activities, all of which can foster student engagement in the learning process. However, any conclusion regarding the magnitude of the model's impact on the learning outcomes of Grade XI students at SMA Negeri 1 Purba during the 2023/2024 academic year must be based on the actual analysis of the research data.

## 4. CONCLUSION

Based on the discussion regarding the "Influence of the Group Investigation Learning Model on Improving History Learning Outcomes for Grade XI Students at SMA Negeri 1 Purba in the 2023/2024 Academic Year," it can be concluded that the Group Investigation model is a cooperative learning alternative that can be used to enhance the quality of history instruction. This model positions students as active participants in the learning process through activities such as investigation, group discussion, information gathering, material analysis, and the presentation of findings. Through these activities, students have the opportunity to gain a deeper understanding of historical material, develop critical thinking skills, and foster cooperation and responsibility in completing learning tasks.

Implementing the Group Investigation model allows students to engage directly in the process of seeking and processing historical information. Students do not merely receive material from the teacher; they also learn to identify issues, express opinions, exchange information, and formulate conclusions based on discussions. This learning process has

the potential to create an atmosphere that is more active, interactive, and meaningful, thereby supporting students' understanding of various historical events.

Improvements in history learning outcomes resulting from the Group Investigation model must be substantiated by comparing scores before and after the intervention, as well as through statistical analysis. If research results show that the average post-test score is significantly higher than the pre-test score, the findings support the conclusion that learning outcomes improved following the model's implementation. However, any conclusion regarding the impact of the Group Investigation model must align with the empirical data and the specific research design employed.

Thus, the Group Investigation model is worthy of consideration as an alternative approach to history instruction at SMA Negeri 1 Purba, as it provides students with the opportunity to learn collaboratively, actively, and responsibly. Successful implementation requires sound lesson planning, clear task allocation, teacher guidance, and the evaluation of each student's understanding. The implementation of this model is expected to foster history instruction that focuses not only on the mastery of facts but also on the development of analytical and communication skills, as well as an understanding of the significance of historical events..

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