

# THE INFLUENCE OF GROUP INVESTIGATION (GI) LEARNING MODEL ON GEOGRAPHY LEARNING OUTCOMES OF SMA NEGERI 1 BANJARBARU

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## ARTICLES INFORMATION

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## ABSTRACT

*The purpose of this study was to examine the effect of Group Investigation model of learning on learning outcomes of geography at SMAN 1 Banjarbaru academic year 2013/2014. This study was a quasi-experimental study (quasi-experiment) with a research design Non-Equivalent Control Group Design. Data were analyzed using t-test. The results of the calculation of t test analysis of data obtained p-level less than 0.05 ( $p < 0.05$ ) of 0.01. The results of these calculations prove that the Group Investigation model of learning effect on learning outcomes.*

Tujuan penelitian ini untuk menguji pengaruh model pembelajaran Group Investigation terhadap hasil belajar geografi pada siswa SMAN 1 Banjarbaru tahun ajaran 2013/2014. Penelitian ini merupakan penelitian eksperimen semu (quasi experiment) dengan desain penelitian Non Equivalent Control Group Design. Data yang diperoleh dianalisis menggunakan t-test. Hasil perhitungan analisis uji t diperoleh data p-level lebih kecil dari 0,05 ( $p < 0,05$ ) yaitu 0,01. Hasil perhitungan ini membuktikan bahwa model pembelajaran Group Investigation berpengaruh terhadap hasil belajar.

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## Introduction

GI is a cooperative learning model that is designed for students to learn and work together in small groups of 4-5 people to carry out investigations on learning topics. The GI model provides the broadest opportunity for students to be directly and actively involved in learning from planning to how to learn a topic through investigation. The small group in the GI model is designed that each group member has their respective responsibilities in achieving the group's objectives in the form of a final report investigating a topic. The end result of group assignments is the contribution of ideas from each member so that group learning hones students' intellectual abilities more than individual learning.

The GI model is a social learning that creates a cooperative environment between students, interpretation of information and increases intrinsic motivation that plays an active role in determining what and how they will learn. The application of the GI model leads students to have good abilities in communication and social skills in groups through the process of discussion. Learning with the GI model is more meaningful because the process of obtaining information relating to subject matter involves students themselves by working and thinking. The GI model can guide students to develop all cognitive abilities of students in the learning process.

The superiority of the GI model lies in the discovery of new knowledge through the process of independent learning, students have good communication skills, there is motivation that encourages students to be active in the learning process starting from the first stage to the final stage of learning, group collaboration can arouse students' enthusiasm and share information with other students in discussing learning material. The overall strength of the GI model has a positive effect on student learning outcomes.

This has led to the interest of researchers to try out the GI learning model to determine its effect on geography learning outcomes in high school students.

Research Junas (2009), Handayani, (2009) revealed that there were complaints that geography learning outcomes were still low and teachers rarely applied varied learning models. Based on this opinion it can be concluded that it is important at this time for teachers to apply learning models, especially the GI model, to reduce the problems of geography learning, especially complaints on learning outcomes. The use of GI models in geography learning can make it easier for students to understand subject matter through a process of discussion, investigation, and discovery of new knowledge through a process of collaboration between students so that learning objectives can be achieved, especially learning outcomes can be improved. This is reinforced by empirical findings from Raharjo (2009), Fajariningtyas (2012) found that there are significant differences in the use of GI learning models for learning outcomes.

Therefore the problems raised in this study are as follows; Does the learning model of Group Investigation affect the learning outcomes of SMAN 1 Banjarbaru geography?

The usefulness of this research for teachers is that the Group Investigation learning model can be used as an alternative learning model and input in improving geography learning outcomes. The next researcher is expected to be able to provide references, information, and material for further research.

Teaching materials in learning geography contain material related to geosphere phenomena consisting of the physical and social environment. Attention and analysis in the study of geography are not only aimed at the natural environment, but also with regard to humanity and the interaction relationship between the two, (Sumarmi, 2012). Geography subjects are aimed at deepening students' knowledge and understanding of the spatial organization of society, places and environments that influence it on the surface of the earth. The mastery of geography learning materials can help students in connecting phenomena on the surface of the earth with the community organizations that occupy them. Geography learning outcomes emphasize students to be able to study, analyze geospheric phenomena and be able to find alternative solutions to problems using geographic views in the future.

The material chosen by researchers is environmental preservation related to sustainable development efforts. This material reveals many environmental problems that need to be investigated and solutions need to be sought by students in the context of caring for the environment.

## Method

This research is a quasi-experimental study with a Non Equivalent Control Group Design research design, only in this design the experimental group and the control group were not randomly selected. Types of instruments and data collection techniques in table 1.

Table 1 Types of Instruments and Data Collection Techniques

Data Type	Data collecting techniques	Instrumen	Procedure of Research
Hasil Belajar Geografi	Tes	Tes Esai	Di awal dan akhir penelitian

Learning outcome data in the form of gain scores were analyzed using the average difference test or t-test. Data analysis was performed with the help of SPSS 16.0 for windows program at a value / significance level  $\alpha = 0.05$ . Guidelines for decision making for independent sample t-tests are:

1. If the value of sig. or significance  $< 0.050$  and the average experimental class learning outcomes are higher than the control class then  $H_0$  is rejected
2. If the value of sig. or significance  $> 0.050$  and the average experimental class learning outcomes are lower than the control class then  $H_0$  is accepted.

## Results and Discussion

The data obtained in this study is the result of learning geography from the difference in the final ability score (posttest) and initial ability score (pretest) or gain score. The gain score describes the geography learning outcomes of the two research subjects, namely the experimental class and the control class. Geography learning outcomes data are grouped into (1) geography learning outcomes scores in the experimental class using the Group Investigation (GI) learning model, and (2) geography learning outcomes scores in the control class using lectures, discussions, and questions and answers.

The results of the t test on the essay test revealed  $t = 3,523$ ;  $f = 3110$ ; and the significance of 2 tails is 0.01 less than  $\alpha = 0.05$ . The experimental class had a mean of 2.7692 and a standard deviation of 1.92474 was greater than the control class which had a mean of 1.2857 with a standard deviation of 1.08379. The data shows that learning with the Group Investigation (GI) model tested by essay test has an effect on student learning outcomes.

GI learning model influences student learning outcomes strongly because there are advantages in each GI syntax. Each syntax is thought to have advantages that positively affect student learning outcomes. The opinion of Suputra, Sedanayasa & Dibia (2013) states that "the GI learning model has advantages at the learning stage". The results of data analysis of the five essay questions used as a whole have increased compared to initial abilities. This is consistent with the opinion of Pederson (1995) that found an increase in learning outcomes for students who are taught with a group investigation model on the whole class in social science learning (geography and history).

The syntax contained in the GI learning model consists of: (1) identifying topics to be investigated and organizing students in research groups, (2) planning investigations in groups, (3) carrying out investigations, (4) preparing final reports, (5) presenting final report, (6) evaluation, (Sharan, 1989;). The whole of the GI syntax refers to cooperative activities in small groups where there is a process of planning and division of tasks in groups. This process is in line with the opinion of Jocye, Weil & Calhoun, (2009) some academic tasks that are done by relying on social interaction in groups can be circumvented in such a way as to improve learning outcomes.

On additional findings, GI is also very well applied to train students to gather information to solve problems and to train students' high-level thinking skills. GI learning model can improve students' cognitive abilities. Konberg and Griffin, (2000); Arnyana, (2005); states that GI is very well applied to train students to gather information to solve problems and to train students' high-level thinking skills. So it can be concluded that the stages in the GI learning model directly influence in improving students' cognitive abilities, especially the ability to solve problems and higher-order thinking skills.

The technique of implementing the GI model that is carried out outdoors also has advantages. Outdoor learning makes students active and enthusiastic about carrying out investigative activities on the GI learning model. Amiruddin, Fatchan & Sumarmi, (2009) stated that physical activities (activeness) in the outdoor learning process will directly affect learning outcomes. Students also engage in physical activities such as conducting interviews and observing conditions of environmental damage so that students discover new knowledge for themselves. Activities to find new knowledge can improve student learning outcomes.

## Conclusion

Based on the results of the study it can be seen that the use of the Group Investigation (GI) learning model has a significant influence on student learning outcomes. This is evidenced by the results of the t test analysis calculation using the independent sample t test obtained p-level data smaller than 0.05 ( $p < 0.05$ ) which is 0.01. The average post test score of the experimental class is higher than the control class. This is caused by the stages of the Group Investigation (GI) learning model that has a positive effect on learning outcomes.

Based on the results of this study it is recommended for teachers, in applying the Group Investigation (GI) learning model as an alternative model to improve student learning outcomes, it is recommended to understand each GI syntax before applying it, and first to build familiarity with students before applying the GI learning model. Further researchers are advised to; in addition to the learning model there are other variables that affect learning outcomes, so it is necessary to test the effect of the GI learning model combined with other variables, and to experiment the GI model by using other forms of assessment to measure learning outcomes.

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