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THE EFFECT OF THE GROUP INVESTIGATION (GI) LEARNING MODEL ON STUDENTS' CRITICAL THINKING ABILITY IN GEOGRAPHY SUBJECTS

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ABSTRACT

This study focuses on experiments to find out the relationship of the Group Investigation (GI) learning model to students' critical thinking skills in Geography Subject at MA Al-Khoiriyah, Bojonegoro Regency. This research seeks to overcome the lack of students' critical thinking skills through appropriate cooperative learning models so that they can hone the critical thinking skills of MA Al-Khoiriyah students, Bojonegoro Regency. The GI learning model emphasizes students to be more active than teachers in line with the curriculum policy currently implemented in schools, namely student-centered learning (student center). The 2013 curriculum uses a scientific approach which consists of observing, asking questions, exploring information, associating, and communicating. This is very consistent with the steps implemented in the GI learning model. The steps contained in the GI learning model require students to carry out joint investigations with their groups. The results of the group investigation were then presented in front of the class and then as the final step an evaluation was carried out together with the teacher. The teacher's role in this learning model only acts as a companion. The results of using the Group Investigation (GI) learning model affect the critical thinking skills of class XI IIS students at Ma Al-khoiriyah Bojonegoro in Geography subject. This is shown by the test results in the experimental class having a higher average value than the control class.

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Keywords: Group Investigation, Geography Subject, critical thinking, learning model.

INTRODUCTION

Efforts to overcome the lack of critical thinking skills, namely using one of the appropriate cooperative learning models to hone the ability to think critically, one of which is the Group Investigation (GI) learning model. The GI learning model emphasizes that students are more active than teachers in harmony with the curriculum policy currently applied in schools, namely student-centered learning (student center). The 2013 curriculum with a scientific approach (scientific approach) consisting of observing, asking, exploring information, associating, and communicating. This is very following the steps applied in the GI learning model. The steps contained in the GI learning model require students to investigate with their groups. The results of the group investigation were then presented in front of the class, and subsequently, as the last step, an evaluation was carried out together with the teacher. The role of the teacher in this learning model only acts as a companion.

The GI learning model improves intellectual abilities and gives students space to practice their social abilities. This social ability is a positive activity to introduce students to the surrounding environment further. The introduction of the environment, such as the interaction between students and other students, students and teachers, groups with other groups, or students with the surrounding environment. Based on the explanation above, the GI learning model can

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train students to socialize with others and the community.

The advantages of the GI learning model, according to Sumarmi (2012), are that students skilled in using inquiry skills that are better than traditional learning get the opportunity to find and find solutions to a problem, get new knowledge by discussing the teacher will give individual attention to the learning process, can develop the ability to work together to achieve the expected learning goals. Besides having advantages, this learning model also has a disadvantage that, according to Slavin in Sumarmi (2012), is the emergence of the effect of "free rider," namely the action of riding or monopolizing group assignments by one student, in other words, a student works hard to complete group assignments while students Others do other things that are not his job.

The stages of implementing the learning model of the GI learning model are directed at achieving the ability to think critically. The ability to think critically is a mental activity in observing a question and thinking that emphasizes decision-making about the correct and appropriate answers. Wijayanti (2011) states that critical thinking is a reasonable and reflective thought that focuses on deciding what is sure to be trusted or done. Based on the opinion above, critical thinking is one of the abilities that must be improved because it is used to decide the problems encountered in learning.

The reason researchers took the GI learning model is based on several considerations. The first consideration is the application of the 2013 curriculum with a scientific approach with the 5M method, which includes: asking, observing, exploring information, associating, and communicating where the learning process is centered on students. The purpose of these activities is to help and facilitate students in dealing with problem-solving faced so that students become better individuals and think critically in a directed or rational manner. This is in line with the syntax of the GI learning model. In the activity of digging for information, students are asked to propose several topics, and the teacher forms a group of students in a heterogeneous manner.

Stages of the first to third GI learning model, namely, students are asked to choose the topic to be studied, and students carry out investigations or investigations. Then, the fourth stage of GI is that students carry out association activities by way of each group planning that they will report by making research reports. Furthermore, the fifth GI stage is the activity of communicating. In this activity, each group is asked to present the research results in the form of power points. Finally, the GI stages are the teacher and students collaborate in evaluating the learning that has been done. So, the 5M activity is interrelated with the syntax of GI, which emphasizes the learning process of student-centered learning from the beginning of learning, both in determining the topic and how to learn it through investigation to the presentation of the results as the final step of the GI learning model.

This statement became a consideration for researchers to test the GI learning model on students' communication skills and critical thinking. The first consideration is supported by Nurhadi's (2004) that the GI learning model requires students to have good communication and group process skills. The second is that the GI learning model can train students to hone critical thinking skills because implementing the GI learning model requires students to be actively involved in doing assignments.

This is intended so that students can be directly involved in discovering new concepts, while the teacher's role is as a facilitator and books as information providers. The third consideration is that the relevance of the material being taught requires students to think critically because this study uses population dynamics and problems, with Basic Competency (KD) analyzing population dynamics and problems. In this material, students are asked by the teacher to conduct research directly in the field regarding population problems, especially poverty, which impacts public health in the surrounding environment, the causes and effects caused, and the influencing factors. After that, analyze the data that has been collected and conclude the investigations that have been carried out. Of course, this material

requires students' critical thinking skills, so students must be good at studying problems that occur in the surrounding environment.

The existence of material linkages with the stages of GI, namely in KD, analyzing population dynamics and problems requires students to explore their critical thinking skills to understand the material well. In the matter of population problems, students can carry out direct investigations in the surrounding environment. GI stages are used to conduct investigations on the material, making it easier for students to conduct research and solve problems well. So, the GI learning model is very suitable for use in this material because the GI learning model emphasizes learning for students to think critically in solving a problem which the teacher will later give in groups.

Another consideration is the existence of previous research, including research conducted by Indarti (2013), proving that the Group Investigation model influences the critical thinking skills of class X students of SMAN 1 Tugu, Trenggalek Regency. The same thing was expressed by Wijayanti (2013). The results of his research stated that the GI model affected the critical thinking skills of class X students of SMAN 1 Mejayan, Madiun Regency. Meanwhile, the results of research by Megawati (2013) showed that Group Investigation affected the critical thinking skills of class X students of SMAN 1 Batu. Based on the description above, researchers conducted experimental research to test the effect of the Group Investigation (GI) learning model on students' critical thinking skills in Geography Subject at MA Al-Khoiriyah, Bojonegoro Regency.

LITERATURE REVIEW

Critical Thinking Ability

Before studying critical thinking, it is necessary to examine the meaning of thinking. Driver and his sources put forward the definition of thinking from the Big Indonesian Dictionary (KBBI). According to Drever in Megawati (2013), "Thinking criticism rejects the existence of problems or problems faced individually." This can be interpreted as thinking focused on a problem faced by someone. Automatically someone will find a solution to a problem. Thinking has the goal of finding a solution or solving a problem. From the opinions presented, thinking is a psychological activity to find a solution to a problem through several considerations.

After learning the concept of thinking, it is studied about the ability to think critically. The definition of critical thinking skills was put forward by several experts, namely Fisher, Ennis, and Richard Edward Glaser. According to Fisher (2009), the first definition of critical thinking suggests that "Critical thinking is skilled and active interpretation and evaluation of observation, communication, information, and argumentation." This opinion is that critical thinking is not only about individual thinking but can be an assessment of a topic of conversation or problem. Skills and activeness in assessing the results of observations, information, and arguments are the keys to critical thinking. A person's critical thinking ability will appear when he is in a critical situation where he is required to solve a complex problem and requires unusual ways of solving it. This is almost the same as Ennis' opinion.

Group Investigation Learning Model

The Group Investigation (GI) model gives students responsibility for their work, either individually, in pairs, or groups. GI consists of 3-5 people, and finally, students can combine, present and summarize their answers. The formation of these small groups so that each student can do research optimally. This is in line with Sudarsono's (2012) opinion, which states that "when a class carries out a GI project, the class becomes a research community and each student is a researcher who coordinates their research with the common goals of the class."

This GI learning model gradually requires students to have good communication skills and can actively apply a method that has been studied. Sumarmi (2012) revealed that "the GI learning model is an investigation carried out in groups, namely students in groups carry out active investigations so that it is possible to find principles." The GI learning model is often referred to as a complex cooperative learning

model because it provides opportunities for students to be maximally involved in groups to do something planning, both in the topic being studied and the learning process. In addition, according to Arifin (2013), the GI learning model is "a cooperative learning strategy that places students into groups to carry out investigations of all topics."

Based on its name GI is a learning model carried out in groups. One of the benefits of group learning is the exchange of opinions from one group member to another. As explained by Slavin in Sumarmi (2012) that communication between classmates will get good results if done in small groups.

METHOD

This research is quasi-experimental and is included in qualitative research. Using two classes, the experimental class, and the control class, the experimental class was given the Group Investigation learning model treatment. In contrast, the control class was not given special treatment or used a conventional learning model. The subjects in this study were students of class XI IPS 1 and XI IPS 2 at MA Al-Khoiriyah Bojonegoro for the 2010/2021 academic year, with 36 students each. The data collected is in the form of critical thinking skills. Data analysis will be carried out through prerequisite tests and hypothesis testing.

RESULT AND DISCUSSION

Exposure to Control Class Value Data

This data describes the test results of the control class and experimental grades. The data presented regarding the minimum value and maximum and the average obtained at the time of the test was carried out using SPSS 16.0 for Windows using a descriptive test. The following exposure to the value of the control class and experimentation is in Table 1.

Table 1. Frequency Distribution of Control Class Critical Thinking Ability

Classification	Value	Qualification	Frequency	Percentage (%)
A	100-85	Very good	4	13%
B	84-75	Well	16	50%
C	74-65	Enough	10	31%
D	64-40	Not enough	2	6%
E	<40	Very less	0	0%
Total			32	100

Based on the table above, it can be seen that in the control class, students generally get good qualifications with the following elaboration, namely the number of students who get grades with excellent qualifications, namely four students with a percentage of 13%. Next, the number of students who get grades with good qualifications is 16 students with a percentage of 50%. Next, the number of students who scored with sufficient qualifications, namely ten students with a percentage of 31%. Next, students who get scores with fewer qualifications, namely two students with a percentage of 6% and scores with inferior qualifications, none of the students get it or equivalent to a percentage of 0%. The percentage of students' critical thinking skills in the experimental class is presented in Figure 1 to make it even more straightforward.

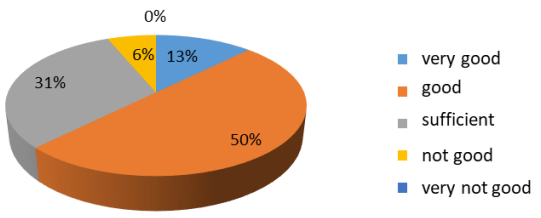

Figure 1. Graph of Control Class Critical Thinking Ability Percentage

Exposure to Experimental Class Critical Thinking Ability Data

Critical thinking ability data was obtained from test scores after the experimental class was given treatment. The treatment is in the form of learning using the Group Investigation (GI) model. Data on the frequency distribution of critical thinking skills in the experimental class is presented in Table 2.

Table 2. Frequency Distribution of Critical Thinking Ability in Experiment Class

Classification	Value	Qualification	Frequency	Percentage (%)
A	100-85	Very good	10	31%
B	84-75	Well	20	63%
C	74-65	Enough	2	6%
D	64-40	Not enough	0	0%
E	<40	Very less	0	0%
Jumlah			32	**100**

Based on the table above, it can be seen that in the experimental class, students generally obtained grades with good qualifications with the following elaboration, namely the number of students who obtained grades with outstanding qualifications, namely ten students with a percentage of 31%. Next, the number of students who get scores with good qualifications is 20 students with a percentage of 63%. Next, the number of students who get scores with sufficient qualifications is two students with a percentage of 6%. Next, the number of students who get scores with less and significantly fewer qualifications is none or 0%. To make it more transparent, the percentage of students' critical thinking skills in the experimental class is presented in Figure 2.

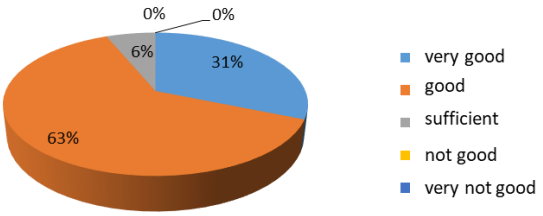

Figure 2. Graph of the Percentage of Critical Thinking Ability in the Experimental Class

Data Exposure to Analytical Thinking Ability of Control Class and Experiment Class

The following will describe the data on critical thinking skills in the experimental class and the control class. Data exposure is presented in Table 3.

Table 3. Frequency Distribution of Critical Thinking Ability in Control Class and Experiment Class

Interval	Qualification	Frequency		Total
		Control	Experiment	
100-85	Very good	4	10	14
84-75	Well	16	20	36
74-65	Enough	10	2	12
64-40	Not enough	2	0	2
<40	Very less	0	0	0
Total		**32**	**32**	**64**

Based on Table 3, the frequency comparison of critical thinking values in the experimental and control classes has differences. This difference appears in the acquisition of scores with very good qualifications obtained more by experimental students than control students. The following shows a comparison of students' frequency of critical thinking skills in the experimental and control classes.

Ten students get grades with very good qualifications in the experimental class. This number is more than the control class, which only numbered five people with the same qualifications. Students who scored with good qualifications in the experimental class were 20 children, while in the control class, there were 16 children. Meanwhile, students who obtained sufficient qualifications totaled two children in the experimental class and ten in the control class. Furthermore, no students scored with fewer qualifications in the experimental class, while in the control class, there were two people. Then in the shallow qualification scores obtained by students in the experimental and control classes,

they were still waiting for someone to get them. To make it more transparent, a comparison of the frequency distribution of critical thinking skills in the experimental class and the control class is presented in Figure 3.

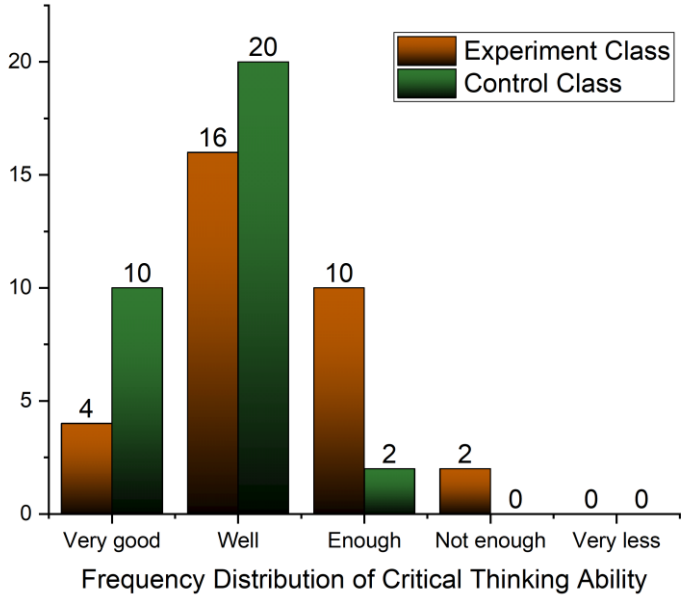

Figure 3. Graph of Comparison of the Frequency Distribution of Critical Thinking Ability in the Control Class and the Experimental Class

Data analysis

Data Analysis Section describes the results (1) prerequisite test and (2) hypothesis test in this study. All data analysis in this study uses the help of SPSS 22.0 for Windows software. The exposure of data analysis in this study will be explained as follows.

1. Prerequisite Test

Before the hypothesis test is first, prerequisite test must be carried out. The prerequisite test includes the normality test and the homogeneity test of research data. The following is a presentation of the prerequisite test results in this study.

a. Normality test

The normality test was carried out to determine the data on the results of research distributed normally or not. The normality test in this study uses a descriptive test of Normality Plots with Test with the help of SPSS 22.0 for Windows software. The level of significance used is 5% or 0.05. The normality test results are presented in Table 4.

Table 4. Normality Test Results

Data	Group	Results Significance	α	Distribution Analysis
Analytical thinking	Control	0.200	0,05	Normal
Skills	Experiment	0.200	0,05	Normal

The table above shows that the normality test of students' critical thinking skills obtained a significance of 0.200 for the experimental class and 0.200 for the control class. The two results of significance in the two classes show a value greater than the significance level of 5% or 0.05, so it can be concluded that the analytical, critical thinking ability data is normally distributed. Complete normality test results can be seen in the attachment.

b. Homogeneity Test

The homogeneity test determines whether the research data comes from the same variant (homogeneous) or vice versa. The homogeneity test in this study uses a descriptive statistical test through power estimation of Spread vs. Level with the Levene Test with the help of SPSS 22.0 Software for Windows. The significance level used is 5% or 0.05. The homogeneity test results are presented in Table 5.

Table 5. Homogeneity Test Results

		Levene Statistic	df1	df2	Sig.
Value_Posttest	Based on Mean	2,949	1	70	,347

Based on the table above, the homogeneity test results obtained a significance of 0.347. This significance shows a more excellent value of the specified significance level of 0.05, so it can be concluded that the subject in this study comes from the same or homogeneous variant group. The full homogeneity test results can be seen in the appendix

c. Hypothesis testing

Based on the previous prerequisite tests showing that students' critical thinking abilities are declared usually homogeneous, the next step is the hypothesis test using the parametric statistical test, the t-test (independent sample t-test). The T-test is carried out to determine the difference in comparing an indicator, in this case, the ability of critical thinking students in the experimental class using the Group Investigation (GI) model and the control class using conventional learning or conventional models. The data used in the hypothesis test is the critical thinking ability test score for the experimental class and the control class.

The analysis used to test the hypothesis above is to use the t-test for two unpaired samples (Independent sample T-test) with the help of SPSS 22.0 for Windows software with a significance level of 5% or 0.05. The test criteria are as follows.

1) If the value is sig. (2-tailed) ≥ α (0.05) and the average value of the experimental class <control class, then H0 cannot be rejected, means that the group investigation (GI) model does not affect the critical thinking skills of students of class XI IPS in MA Al-Khoiriyah Bojonegoro in Geography subjects.
2) If the value is sig. (2-tailed) ≤ α (0.05) and the average value of the experimental class> the control class, then H0 is rejected, meaning that the Group Investigation (GI) model affects the critical thinking ability of students. The results of the calculation by using the T-test for two samples that are not paired (independent sample t-test) are presented in Table 6.

Table 6. Independent Sample t test results

	Sig.	Hypothesis
Post-Test Value	0.007	Be accepted
	0.007	Be accepted

The results of calculations using the t-test showed that the sig. (2-tailed) of 0.007 ≤ 0.05 significance level. Based on the results of the t-test conducted, it can be concluded that the null hypothesis (H0) is rejected. The alternative hypothesis (H1) is accepted and reads the Group Investigation (GI) model's effect on the critical thinking skills of Class XI IPS MA *Al-khioriyah* Bojonegoro students. Complete t-test results can be seen in the appendix.

The t-test has proven that the null hypothesis (H0) is rejected, then the alternative hypothesis (H1) is accepted. This is also supported by the data on the post-test scores of students in the experimental class, which are higher than the control class. A comparison of the average students' critical thinking skills using the Group Investigation (GI) model and the conventional model is presented in Table 7.

Table 7. Comparison of Average Students' Critical Thinking Ability

Model	Average Value	Percentage Difference
Problem Based Learning (PBL)	82.93	5
Conventional	77.93	

Discussion

Based on the hypothesis testing that has been done, the research findings in this study are that there are differences in students' critical thinking skills in Geography Class XI IPS at MA Al-Khoiriyah Bojonegoro between the experimental class using the Group Investigation (GI) model and the control class using the conventional model. This can be seen from the average test score of students' critical thinking skills in the experimental class, which is 82.93 higher compared to the average value of the control class test score, which is 77.93 so it can be concluded that the findings in this study indicate the influence of the model Group Investigation (GI) on the critical thinking skills of Class XI IPS students at MA Al-Khoiriyah Bojonegoro in Geography Subject. Further discussion of the findings of this study will be presented in the next chapter.

The results of the research that has been presented show that the research findings show that Group Investigation (GI) learning model influences the critical thinking skills of class XI IPS students at MA Al-Khoiriyah Bojonegoro. Based on data analysis, students' ability to think critically by being treated with the Group Investigation learning model is higher during learning activities compared to students who carry out learning activities using conventional models. This statement can be shown from the critical thinking ability test scores of experimental class students higher than control class students, with an average critical thinking ability of the experimental class of 82.93 and that of the control class of 77.93.

The learning activities in this study used the Group Investigation (GI) learning model applied in the experimental class by presenting problems related to poverty that occurred around the students' environment. The Group Investigation learning model, according to Slavin, has six stages, namely, (1) forming groups and determining investigative topics, (2) designing investigative plans, (3) carrying out investigations, (4) analyzing and preparing reports, (5) presentations and (6) evaluation. An explanation of the stages of the Group Investigation (GI) learning model is as follows.

The first step is for students to form groups randomly by counting and determining the topic of the investigation. At this stage, the teacher has determined the topics to be discussed, namely environmental, economic and social problems, to limit the study of problems to be discussed by students. The groups formed consisted of six groups consisting of five to six students. Each of the two groups has the same theme, so the teacher limits the locations used as investigation sites to be different from those with the same theme.

The next step is that students are asked to design an investigation. At this stage, students begin to discuss determining the location that will be used as research and create research instruments in the form of interview questions with informants. Determination of the location between one group and another group must be different. Students are asked to formulate a problem and the purpose of investigating the area. In addition, the teacher asks students to find information from various sources, for example, BPS data or village or area profiles, to be investigated to increase knowledge about the problem to be investigated so that it becomes a consideration when providing solutions to overcome these problems.

At this stage, the teacher acts as a facilitator, helping students who do not understand the steps or actions taken when determining topics, designing investigations, and supervising students in the learning process. However, the planning process could have been more successful at this stage because the time was short, so the teacher asked students to continue outside class hours. Based on this explanation, the Group Investigation (GI) learning model has the advantage that students will be more actively involved in learning, independently or in group discussions.

The third stage is the implementation of investigations carried out outside of class hours so that students are not bound by class time. Each group conducts an investigation and determines its sources according to the topic of the problem that has been predetermined in the selected village. Students are invited to have higher-order thinking skills at this stage, namely analyzing, evaluating, and creating a solution. This stage distinguishes between the control and experimental classes because students who carry out activities in the field or outside the classroom will have more meaningful learning. This is because students who study outside the classroom or in the field can experience it directly.

The objects studied are concrete and transparent, making it easier for students to understand the material being taught. This statement is in line with Purwanto's (2010), which states that teacher readiness is one of the factors that influence students' thinking skills if the teacher provides a learning model that requires students to be active and provide new experiences in the learning process it will develop critical thinking skills. The suitable model is Group Investigation (GI) because with this model, students will experience a more meaningful learning process, and teachers are better prepared to carry out the learning process. Based on this explanation, the advantages of the Group Investigation (GI) learning model are that it allows students to investigate (find and find) a problem more intensively. So, the information they get after planning an investigation is then applied by going into the field, whether the information they get follows the conditions in the community. At this stage, students will understand more about the problems in the field and can find out the causes and effects of two factors.

The next stage is analyzing the data and making a report on the results of the investigation that has been carried out. The students then analyzed the results of the previously obtained interviews to answer some of the questions in the investigation guide. The investigation guide provided can assist students in making a report on the results of the investigation that has been carried out. Students will be more actively involved in learning independently and in groups at this stage. This is because, at the investigation stage, the students have already investigated and discussed the causes and effects of the two factors with the group members. Students analyze the factors that influence the problem of low levels of education, welfare, and population health. At this stage, students are actively involved in learning because they have entered the field, so they have information to discuss so they can find out the relationship between the two factors.

In this fourth stage, students are also asked to make reports based on the results of investigations in the field. Students divide tasks between groups so that when the presentation can run smoothly. Making reports according to the format in the investigation sheet. The teacher explains in advance the report format so that students understand and report according to the desired format. At this stage, students are asked to improve their critical thinking skills by analyzing a problem based on results in the field, evaluating problems based on data and experience to find out the relationship between the two problem factors in the research area, and making it a report. Indicators of critical thinking ability so that students can carry out indicators of creating data into a new structure at the stage of making a report in the Group Investigation (GI) learning model.

The fifth stage is the group presentation following the specified topic. Students have good and smooth communication at this stage in delivering the report's results. This is because the experimental and control classes are very different when presenting. It is proven that when presenting the experimental, students are more active and trusting in conveying the results of the investigation, in contrast to the control class, only one or two people are active in delivering the results of work with group members. This is because the information control class obtained is only centered on the article. In contrast, the experimental class of various sources was then proved by investigating the field or plunging into the community to prove the information obtained. Based on this statement, submitting the report results or communicating with experimental class students is better than the control class.

The final stage of the Group Investigation (GI) learning model is evaluation. Students provide input or criticism for other groups to be better in carrying out the learning process. This stage can increase the ability to think critically and evaluate. Students respond to the area so that at this stage, there is a debate between one group and another, and other groups respond. This event can train students to think critically and become accustomed to expressing opinions with communicative language. The teacher gives tests and motivation to students who have worked together in groups so that learning goes well.

Based on this explanation, the Group Investigation Learning Model (GI) can improve the ability to think of a high level of thinking that is formulating problems, evaluating, and concluding. Proven in every stage carried out can make students develop critical thinking skills. This learning model increases cognitive abilities and social skills so that students respect the opinions of others in making decisions.

Conditions in the control class of the process and learning activities are different from the experimental class. The experimental class uses the Group Investigation (GI) learning model, while the control class uses the conventional learning model. The role of the teacher in the control class is still huge, namely, during the first meeting, the teacher delivered the material, then at the second meeting of the group division, and the discussion continued on each group's presentation.

Based on the presentation of research findings that have been carried out, the group investigation (GI) learning model on population dynamics material conducted in the experimental class has advantages, among others: (1) students have much freedom in exploring their knowledge and experience in groups, (2) giving to students to be more interested in researching (searching and finding) solving a problem, (3) This strategy is directed to develop student leadership and teach them skilled in discussions and work in groups, (4) actively involved in learning both independently or when discussing with groups, (5) Train the truth of students in communication (giving arguments and opinions).

(6) The teacher gives more individual attention to student learning needs, (7) provides the opportunity to develop respect (respect) for other students who work group progress in achieving goals. The advantages found at the time of the study supported the statement from Sumarmi (2015) about the superiority of the Group Investigation (GI) model. Based on the research findings that have been carried out, the Group Investigation Learning Model (GI) can improve students' high-level thinking skills in the population's quality and mobility materials based on the models' stages and excess learning.

Previous researchers also supported the results of this study. Namely, the Group Investigation Learning Model (GI) affect the ability of students' critical thinking (Koswara, 2016), and the Group Investigation Learning Model (GI) can improve high-level thinking skills (Fisher, 2001). Some of the previous research results showed that the Group Investigation (GI) learning model affected the variables studied.

CONCLUSION

Based on the formulation of the problem and the research results, conclusions can be drawn. Namely, the Group Investigation (GI) learning model influences the critical thinking skills of class XI IIS students at Ma Al-khoiriyah Bojonegoro in Geography subject. This is shown by the test results in the experimental class having a higher average value than the control class.

Author's declaration

Authors' contributions and responsibilities

The authors made substantial contrib-utions to the conception and design of the study. The authors took responsibility for data analysis, interpretation and discussion of results. The authors read and approved the final manuscript.

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Availability of data and materials

All data are available from the authors.

Competing interests

The authors declare no competing interest.

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