Implementing Group Investigation (GI) Learning Method to improve the Students’ Learning Achievement of Senior High School

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Abstract. The purpose of this study is to use the group investigation (GI) learning model to increase students’ learning accomplishment in the theme of consumption and investment in class X Language SMA Negeri 2 Rejang Lebong. This type of research is known as classroom action research (CAR). This study was carried out at SMA Negeri 2 Rejang Lebong. The research subjects were 28 class X Language students for the 2018-2019 academic year. This research was conducted in March and April of 2019. To gather data in this study, three methods were used: the test technique, the observation method, and the documentation method. Following data collection, a descriptive percentage technique is used to evaluate it. According to the study’s findings, student achievement increased from 21.42% to 71.43% in Cycle I and subsequently to 85.19% in Cycle II. This increase has an effect on the increase in learning achievement. The growing average value of pupils reflects this. The average student score climbed from 67.71 in the pre-cycle with a 21.42% completeness percentage to 77.43 in cycle I with a 71.43% completeness percentage and 85.44 with an 85.19% completeness percentage in cycle II. As a consequence, using the group inquiry (GI) learning approach can help students perform better in economic courses.

Keywords: Group investigation, Learning Method, Learning Achievement.

Introduction

Education is a learning process carried out by humans throughout life. Learning is the main key to education. Education is important for humans to face increasingly competitive times. Education will form quality human resources so that humans acquire the provisions to survive in an increasingly developing era. Education is defined as the deliberate and planned effort to establish a learning environment and learning process in which students actively develop their potential for religious spiritual strength, self-control, personality, intelligence, and noble character, as well as the skills necessary for themselves, society, the nation, and the state (Law No. 20 Concerning the National Education System, 2003).

Learning accomplishment, according to Djamarah (2012), is the outcome of impressions that result in changes in persons as a result of learning activities. These changes are tied to changes in subject matter mastery as well as changes in individual behavior. Learning is a process, not a product or a goal (Aunurrrahaman, 2014). Learning is more than just memorizing; experiencing learning outcomes is a behavior change rather than mastery of training results (Hamalik, 2009). According to Huda (2017), many learning models have been developed to help students think creatively and productively. For teachers, these models are important in designing curriculum for their students. The learning model should be considered a structural framework that can also be used as a guide for developing conducive learning environments and activities (Al-Tabany, 2017).

Based on observations made in Class X Language of SMA Negeri 2 Rejang Lebong, the learning process experienced a decrease in activeness in teaching and learning activities (KBM) in economics subjects. Economics is one of the subjects in schools that, according to students, not only has a strong theoretical basis but also must have the ability to analyze, describe, and identify a problem (Supiyanto & Dumiyati, 2017). The lack of student engagement is influenced by an inadequate learning approach, notably the lecture style, which causes students to be
passive and bored throughout the teaching and learning process, resulting in a lack of student learning motivation. Because the lecture method is still used as a learning style, students become passive participants in their learning. As a result, there is a need for change in the learning process to boost learning achievement, and learning is not focused on the instructor.

Based on observations, the low outcomes of studying economics for SMA Negeri 2 Rejang Lebong class X pupils may be seen in the economics subject scores that did not meet the KKM. Only six of the 28 students had grades that met the KKM. So, the learning completeness in the economics subject of Class X Language students at SMA Negeri 2 Rejang Lebong only reached 21.42% of the 28 students. A learning approach that promotes activity development is an alternate answer to the problem of subpar student accomplishment in economics. It is taught using a cooperative learning methodology. A group learning strategy is the cooperative learning paradigm. One type of cooperative learning is group inquiry (GI) (Sitaresmi, 2021). Therefore, the selection of appropriate learning methods, such as the group investigation method, can affect student learning outcomes. According to Killen (Aunurrahman, 2014), the group investigation method is a direct and efficient way to teach academic knowledge as a social process. This approach will also be capable of fostering warm interpersonal interactions, trust, respect for laws and policies, learning independence, and respect for the dignity and value of others (Mitchell et al., 2008). Based on the aforementioned, the goal of this study is to ascertain if the group investigation learning approach may improve class X students’ learning outcomes in economic courses throughout the 2018–2019 academic year.

Material and Method

Classroom action research (CAR) will be done as part of this study. PTK is described by Susilo (2009) as a study of educational activities that take the shape of elevated, intentional actions that take place in a classroom setting. The study took place in SMA Negeri 2 Rejang Lebong. There were 15 men and 13 women among the 28 students from class X Language who participated in this classroom action research. The research subjects were chosen based on the class that was learning the content. Class X Language was a diverse class with varying talents, and grades rapidly declined.

The planning and execution stages are completed in II (dus) cycles. Each cycle is divided into four stages: preparation, execution, observation, and reflection. This study uses data collection techniques through tests, observations, and documentation (Sugiyono, 2016). This study uses descriptive data analysis techniques with percentage techniques, which are assessed quantitatively in the form of percentages. In this section, all data collected from the research will be processed to find out whether student achievement in economics subjects using cooperative learning group investigation models can improve student achievement in class X language compared to using previous conventional learning models in class X students in the 2017/2018 school year.
Results and Discussion

Results

SMA Negeri 2 Rejang Lebong conducted class action research (CAR) from March to April 2019. The group investigation learning methodology was used in both cycles of this study. This classroom action research was conducted with a total of 28 students from class X Language, with 15 male students and 13 female students participating.

Table 2 shows that student success prior to implementing the cooperative group research model technique was lower. Students' average value in the pre-cycle action was 67.71, and the proportion of student learning completeness was 21.42%. Based on the preliminary data gathered from economics professors, it is still not optimum. As a result, the cooperative learning model group inquiry was carried out as a follow-up to these early observations to increase student learning accomplishment.

Table 2 shows the increase in student accomplishment from cycle I to cycle II. With a complete learning achievement percentage of 71.43% in the first cycle action and increasing to 85.19% in the second cycle action, a total of 20 students were completed in cycle I and increased to 23 in cycle II, the average value of students increased from the first cycle action to the second cycle action, or from 77.43 to 85.45. In Action Cycle II, student achievement has reached an indicator of success. So there is no need to proceed to the next cycle of action. In the indicator of success, the teacher is said to be successful if the average student learning percentage test results reach a KKM of more than or equal to 75 and 75% or more of students participating in economic learning activities obtain a learning presentation test score of more or equal to 75.

The following is a description of how class action research (CAR) was implemented in economics learning with cooperative learning group inquiry models in each cycle.

Conditions Before Action (Pre-Cycle)
To get a specific picture of the learning process, the teacher made direct observations at the school on February 23, 2019. In this project, details were gleaned through observations that the group investigation model of economic learning in the classroom was previously implemented using traditional techniques or lectures.

**Cycle I**

Table 2 demonstrates that student learning success increased from the pre-cycle action through cycle I. The number of students finishing the first cycle activity increased from 6 in the pre-cycle to 20 in cycle I, and the average student score increased from 67.71 to 77.43. Although student performance in cycle I activities has started out well, it is not yet at its best. As a result, cycle II has to be improved.

**a. Action Planning Stage**

Cycle I action planning activities were carried out in 2 meetings, namely on March 2 and March 9, 2019, with an allotted time of 3 x 45 minutes. The cycle I action planning stages include:

1) **Prepare learning devices.**
   - The teacher prepares the syllabus and appropriate material according to basic competencies. The teacher then compiles lesson plans and scenarios. After the learning device is ready, the teacher discusses it with the subject teacher.

2) **Prepare material according to basic competency.**

3) **Provide the necessary learning media according to the learning scenario.**

4) **Creating an assessment instrument in the form of a test or a description to identify the amount of learning attainment following group investigation learning.**

5) **Prepare observation papers, student workbooks, assessments, and attendance sheets as tools.**

**b. Action Implementation Stage (Acting)**

The first cycle of learning was implemented on Saturday, March 2, 2019. Learning was carried out in accordance with the scenario outlined in the lesson plan.

The activity begins with greetings, checking student attendance, checking class cleanliness, checking student readiness to receive lessons, preparing learning resources or media, and appreciating students for recalling past material that is still related to the material to be studied so that students have an idea of the material to be studied (Suryapermana, 2017). After that, convey the learning objectives to be achieved and provide direction regarding the group investigation learning model that will be applied in learning. Then, the teacher conveys an outline of the subject matter regarding consumption and savings. Following that, the instructor applies the group investigative learning paradigm directly to learning activities.

The group investigation learning paradigm requires many steps to be completed, including grouping, planning, inquiry, arranging, presenting, and assessment (Ainiyah et al., 2022). At the grouping stage, students are divided into investigative groups. Each group consists of 5–6 students; group members are determined according to the number of absences. From a total of 28 students in class X Language, there were five investigative groups: two groups consisting of five students and three groups consisting of six students.

After the grouping process was completed, the teacher immediately gave investigative material to each group. Each investigative group plans a study
assignment, seeks answers to the material to be investigated, and prepares a report on the results of the group's investigative assignment. At the end of the meeting, the teacher gave students motivation to study more actively and asked students to complete the assignments given by the teacher (Sharan et al., 2013), because at the next meeting a presentation and evaluation of Cycle I would be held and would end with greetings and prayers.

At the next meeting, which was Saturday, March 9, 2019, The teacher opened the lesson by greeting the students, praying together, checking student attendance, checking class cleanliness, checking student readiness to receive lessons, and preparing learning resources and media. The instructor then instructs pupils to regroup and sit by their groups to discuss once more before taking their turn to come to the front of the class to deliver the outcomes of their discussion. The teacher asks students who are ready or have completed their discussion to share their findings in front of the class; during the other group presentations, they are directed to ask questions to the group that is presenting so that a question-and-answer process occurs as well as discussion in the group presentations carried out (Listiana et al., 2016). After the group presentations were finished, the teacher discussed the results of the presentations and responded to questions that occurred during the group presentations. After all the investigative groups finished taking place After all the investigative groups finished presenting their work.

Observations on student activity in the learning process were also made during group investigation learning in order to determine how active students were throughout learning utilizing the group investigation learning model (Asyari et al., 2016). After the teacher and students have concluded the learning outcomes regarding consumption and savings material, the teacher gives instructions for all students to return to their respective seats because there will be an evaluation or post-test cycle I. The teacher distributes question and answer sheets to all students. The teacher reminds students to fill in their identities before working on the questions, asks students to fill in the attendance list provided, and asks all students to collect question and answer sheets that have been completed in front of the class. After all students collect the question and answer sheets, the teacher closes the lesson with a greeting.

c. Observation Stage

At this phase, the instructor uses the group investigative learning model to investigate the learning process, observing student learning activities as they occur. This observation was conducted to evaluate student participation in the implementation of learning activities and to discover how the teacher's implementation of group investigative learning can boost student accomplishment. Observations are carried out concurrently with action execution. At this time, the findings of observations reveal a rise. Even while some pupils still do not pay attention and chat to themselves, many students begin to attend lessons.

d. Reflection Stage

At this point, the teacher undertakes a detailed assessment of the activities that were assigned based on observations and student test results. Based on the results
of the first cycle's activities, it is possible to conclude that there has been an increase in student success compared to the scenario prior to the action, or pre-cycle. This is seen when a large number of students listen to the teacher's explanation and actively participate in learning activities. However, in this cycle I activity, there were still some students who were still passive in this group investigation learning. It can be seen from the observation that some students still often talk to their friends and do not pay attention to friends or teachers who are talking in front of the class, so the test results obtained are not optimal.

**Cycle II**

**a. Action Planning Stage**

Cycle II action planning activities were carried out for 2 meetings, namely on March 16 and 23, 2019, with a time allocation of 3 x 45 minutes. The cycle II action planning stage includes:

1) Prepare learning devices.
2) The teacher prepares the syllabus, materials, and lesson plan (RPP).
3) Prepare material by basic competencies.
4) Provide the necessary learning media according to the learning scenario.
5) Designing an assessment instrument in the form of a test in the form of a description to determine the level of learning achievement after using group investigation learning.
6) Prepare observation sheets to capture student learning activities during the learning process, student worksheets, assessment sheets, and attendance as research instruments.

**b. Action Implementation Stage**

Cycle II learning is implemented based on the current situations in the lesson plans that have been created. All activities, beginning with opening activities, core activities, and closing activities, are comparable to the implementation of actions in Cycle I. Several stages must be carried out in this group investigation model, namely the stages of grouping, planning, investigation, organizing, presentation, and evaluation. At the grouping stage, the teacher divides the class into investigative groups. Each group consists of 5–6 students. Group members are determined according to the number of absences. Of the 28 students in class X, five investigation groups were obtained. Two groups consist of five students, and three groups consist of six students.

After the grouping process was completed, the teacher gave investigative material to each group. Each group plans a study assignment, seeks answers to the material to be investigated, and prepares a report on the results of the group’s investigative assignment. The teacher acts as a facilitator who guides and gives direction to students or groups that are experiencing difficulties. Students gather according to their groups to discuss before presenting the results of their discussions in front of the class. Another group gave questions to the group that was presenting for a question-and-answer process and discussion. After the group presentations were finished, the teacher discussed the results of the presentations and responded to the questions that arose. Teachers and students conclude the
results of learning about investigative material. Before class ends, an evaluation, or post-test cycle II, is carried out by distributing question sheets and answer sheets to students, and then the teacher closes the lesson with greetings.

c. **Observation Stage**

At this stage, the teacher makes observations of the group investigation learning process and observes student learning activities when they take place. Observations were made to determine student activity in the implementation of teaching and learning activities and to find out how the implementation of group investigation learning applied by the teacher can improve student achievement. Observations are made simultaneously with the implementation of the action. The results of observations at this stage show an increase. Many students are active and pay attention to teachers and friends who are talking in front of the class. The increase in student learning activities during these activities can be seen in the appendix. Furthermore, student achievement increased more in the second cycle of action than in the first cycle of action.

d. **Reflection Stage**

At this point, the teacher undertakes a detailed assessment of the activities that were assigned based on observations and student test results. Student accomplishment has attained indications of research success as a consequence of reflection on the activities of the second cycle, thus there is no need to advance to the next cycle of action.

**Discussion**

Based on the results of the observations, it can be said that the learning activities are going well. This is because students can participate in discussion activities with the teacher or with other students in small groups smoothly, actively, and understand the material. This planning has been modified to meet the needs of the teacher, who must be able to organize learning activities while taking the interests and circumstances of the students into consideration (Sanjaya, 2015). According to the discussion above, cooperative learning and group investigations produce higher learning outcomes than traditional methods. Group research and cooperative learning can raise student accomplishment, according to the rise in average student scores and the percentage of students who complete their learning from cycle to cycle.

According to a study by David W. Johnson, Roger T. Johnson, and Mary Beth Stanne, the GI learning model works better than the learning model. Cooperative learning systems may be graded based on how much of an impact they have on student progress and the quantity of provided comparisons. when the effects of cooperative teaching are contrasted with the effects of competitive learning and the effects of individualistic learning. Comparatively speaking, the investigative group learning method appears to be less anticipated than the jigsaw learning approach. In addition, five criteria were used to evaluate cooperative learning methods: (a) ease of learning, (b) ease of initial use in the classroom, (c) ease of long-term maintenance of use, (d) method robustness (applicability to a wide variety of subject areas and grade levels), and (e) ease of adapting the method to changing circumstances (Astiti, 2018).
Conclusion

Based on the results of initial observations, it was found that the problem was low student achievement in economics subjects. Several factors influence low student achievement, one of which is the use of conventional learning models, namely the lecture method. The use of lectures in learning tends to make students passive and bored, which ultimately makes them not interested in taking lessons seriously, resulting in low student achievement in economics subjects. With these issues in mind, the teacher conducted classroom action research using the group investigation cooperative learning model, where the average student score in the pre-cycle action was 67.71, increasing to 77.43 in the first cycle action after using group investigation learning. In the pre-cycle action, the proportion of learning completion ranged from 21.42% to 71.43%. However, learning is not maximized in the initial cycle of action. As a result, cycle II intervention is required. The average student score climbed to 85.44 in action cycle II, with a learning completion rate of 85.19%, so it can be concluded that the classroom action research conducted by the teacher was said to be successful because it had achieved research success indicators, where the teacher was said to be successful if the average test student achievement results achieved a KKM of more than or equal to 75 and more than 75% of students participating in economic learning activities obtained a learning achievement test score of more than or equal to 75.

References


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