Improving Student’s Critical Thinking Ability in IPS Learning Through Group Investigation Learning Models in Basic School, Kartika VIII-1 Cijantung, East Jakarta

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Abstract. Classification Follow-up for Increasing Students' Critical Thinking in Social Studies Learning through Investigation Group Learning Model at Kartika VIII-1 Elementary School Cijantung East Jakarta. The research subjects were 27 students / class V students consisting of 10 male students and 17 female students who were included in the second semester even 2017/2018. The study was conducted during May to July 2018. Data collection was carried out with analysis, field notes, and documentation through photographs. Data analysis is done by reflecting on the activities that have been carried out in each cycle. In the findings of cycle I about students’ critical thinking skills in social studies, students have not reached the expected researchers, namely 17% or 6 students get a value of ≥ 70, while 29% or 21 students get a score of <70 or in other words still incomplete. As for based on the results of observations of the learning process action which includes the teacher's activities in learning by 73% and the observation of student activities in learning by 64%. Observations made during the implementation process, students with a score of 100 as many as 3 people (8.5%), a value of 90 as many as 7 people (22.8%), a value of 80 as many as 4 people (28%), a value of 70 as many as 5 people (17%), score 60 as many as 3 people (8.5%), value 50 as much as 2 people (5.7%), value 40 as much as 3 people (8.5%) or in other words understanding mathematical concepts on flat-build material still far from expectations.

Keywords: Increased critical thinking ability, group investigation learning model.

INTRODUCTION

Education is important for students to develop all the potential they have and as a place for character building. One way to achieve educational goals is the learning of social science taught in primary schools to develop the potential of human resources through teaching activities. The teaching activities are held in all units and levels of education that apply.

Learning as an instructional system refers to understanding as a component device that is interdependent with each other to achieve goals. In a learning consists of learning devices that are interrelated and aim to achieve the learning objectives that have been set. Learning devices must be in accordance with the learning objectives to be achieved in the learning process to direct students in the learning process.

Today there is a growing awareness among the education world that teaching and learning will be more effective if students actively participate in the process. Many students think that learning is an unpleasant activity, sitting for hours by paying attention and thoughts to a subject, both what is being conveyed by the teacher and being faced at the desk. But the problem that is more prominent and often arises is the students' assumption that IPS is a boring and saturating rote lesson, so that it causes their learning outcomes to be low.

According to Mulyono Social Sciences (IPS) is an interdisciplinary approach from the social sciences. Social Sciences (IPS) is an integration of various branches of the social sciences such as sociology, cultural anthropology, social psychology, history, geography, economics, political science, and so on. Knowledge of everything related to society in Indonesia, the lesson of Social Knowledge is adjusted to various social perspectives that develop in the community. Thus students and students who study Social Sciences can live the present with the knowledge of the past of humanity.

Social Sciences at the school level basically aims to prepare students as citizens who master knowledge, skills, attitudes and values. Knowledge, skills and attitudes can be used as the ability to solve personal problems or social problems as well
as the ability to take decisions and participate in various community activities in order to become good citizens.

In the 2006 KTSP curriculum social science (IPS) is one of the subjects given starting from SD / MI / SDLB to SMP / MTS / SMPLB. Social Sciences (IPS) examines a set of events, facts, concepts and generalizations relating to social issues containing material Geology, history, sociology and economics to be able to become democratic and responsible Indonesian citizens and peaceful citizens of the world.

Social Sciences as a field of teaching began to be studied at the elementary school level. In the 2006 KTSP curriculum one of them has the goal that students can think logically and critically, curiosity, inquiry and problem solving. The ability to think critically is one of the goals of IPS which is very important to be developed, especially with the development of a growing age. Similarly, the development of science and technology is so rapid and increasingly complex. This will cause the information received by students to be more diverse, both the source and the essence of the information. Therefore students are required to have the ability to think critically to choose and sort information that is good and right, so that it can enrich their knowledge and solve problems faced critically.

Several studies conducted by Marhamah Asyari entitled "Improving critical thinking the integration of problem based learning and group investigation". Rara Muhammad Ayyub entitled 'an empirical investigation of ethnic food consumption a perspective of majority ethnic group'. Louise Valentine titled 'an exploratory investigation onto the role of a research and development program on future craft practice' Finanty Ahsanah entitled 'group investigation' a cooperative learning of method for the 10TH grade in English classroom students' speaking A descriptive research method is used to get the finding of the study, observation checklist, questionnaire, and practical test are the instruments used to collect the data. Iswardati entitled 'the implementation of group investigation to improve the students' speaking skills.

Seeing the current reality, the learning of social science at SD Kartika VIII-1 students seemed to only listen to what the teacher said without being interested in asking questions or finding out more about what the teacher conveyed in class because of lack of student reading, so understanding students towards a concept or material is very low. The low learning outcomes of social science subjects are caused by internal factors closely related to objective conditions, lack of critical thinking habits and low intelligence abilities.

This result in problems that often arise in the learning of social science is the low value of student learning in almost every material taught. From the observations at SD Kartika VIII-1, it is proven that if a daily test is carried out, the average value of social science is always below other subjects. The interview with the teacher, especially on Dutch colonization material towards the Indonesian people is material that is considered difficult by every student in class V. The lack of ability to think about the material results in many students' learning value in this material whose value is below the determined KKM which is 75 In addition, students assume that learning Social Sciences (IPS) is a learning that is saturating, boring and not important because it is theoretical and memorized.

From the above problems, the researchers feel the need to deal with these problems through the application of group investigation learning model. This is because students in learning are seen as developing individuals, so the ability to learn critical thinking will be largely determined by their level of development and experience. Group learning model investigation The use of the environment in learning social science invites students to analyze problems, and see the good and bad side. This will attract students’ attention because learning material will come from the way students think for themselves. Students can reveal information and opinions they know, so that they will get to know the real life and not just theories as listed in the book. The application with the investigation group as a learning model will provide valuable experiences or lessons to analyze, deal with and solve problems in the past and those that will be lived.

Thus, one of the keys to the success of the education and learning process lies in the design that is supported by a learning plan, learning techniques and methods, namely learning which refers to the application of the investigation group learning model that allows students to interact in it. The role of the teacher is needed so that the student learning environment is appropriate and ultimately the hope of achievement, student learning can be realized.

Teachers should provide action to students so that they can improve their critical thinking skills, in social science subjects by applying the investigation (GI) learning model which is part of the cooperative model. Where the investigation model has provided references and involves students from the beginning to the end of learning and requires students to have good skills, communication and group process skills.

**RESEARCH METHODS**

This class action research place was held at Cijantung Kartika VIII-1 Elementary School, located on Jalan Anyelir, Gedong Village, Pasar
Rebo District, East Jakarta. The condition of the school is physically good enough. Adequate facilities and infrastructure equipped with computer rooms, laboratory rooms, and multimedia rooms.

The characteristics of fifth grade students of SD Kartika VIII-1 in their cognitive development are high, medium, and low. It can be seen from the results of each test that has been done by the teacher and the results of interviews with teachers who teach. The economic background of the students is mostly middle and lower middle class.

The educational background of the parents is spoiled, less independent, and always want to be cared for by the teacher. The educational background of the parents is average above high school. So students look a little spoiled, less independent, and always want to be cared for by the teacher.

A. Research Intervention Methods and Design

In this study the method used by researchers is a class action research method (CAR). Classroom action research is an improvement on the social studies learning process specifically to improve students' critical thinking through the application of investigation group learning models, so that the learning process provides opportunities for students to actively participate and express ideas through more unique and different answers, more learning dynamic, also for more professionalism of educators in learning in the classroom by looking at the conditions of students.

The design of the action design uses a spiral-shaped cycle model that refers to the Kemmis and Taggart model which starts from planning, implementing actions (action), observation (observation), and reflection (reflection) which is a system that is interconnected with another. Each action begins with a plan phase where the researcher prepares a lesson plan, provides lessons and prepares research instruments. Then the plan that has been arranged is carried out at the implementation stage. During the implementation of the action observations were made of the teacher and students recorded on the instrument and observation sheets. Then at the reflection stage, researchers and observers analyze the learning process and behaviour of students and teachers. The results of the reflection are used as a reference for further improvement plans.

B. Subjects / Participants Related to Research

Subjects involved in this study were 27 grade V students of SD Kartika VIII-1 Cijantung, 10 male students and 17 female students, they were recorded as students in grade V elementary school in the 2017-2018 school year. Students as the main subject play an individual whose potential will be developed so that they can think critically.

The participation in this study was the Cijantung Elementary School Kartika VIII-I school and colleagues who were class V teachers in schools who acted as observers, believed to collaborate and work together to provide input, criticism and suggestions in this study.

C. Data Analysis Techniques

Data analysis is a very important part of this class action research, because analyzing means identifying and knowing the success of the research. Analysis can be seen changes in improvements in learning that may occur during the implementation of research in each cycle. Data collection begins with instruments in the form of observation format and test sheets. Implementation the activity is documented using a photo camera. Results of data analysis for each cycle implementation then reflected in the activity to plan for action again in the next cycle. Data analysis researchers can obtain various indicators of achievement, supporting and inhibiting factors in the research carried out and the impact and actions given during the learning process.

RESEARCH RESULTS AND DISCUSSION

Subjects in this study were class V C students totaling 27 students. 10 of them are male students and 17 female students. This research was carried out for two cycles. First cycle 3 meetings and second cycle 3 meetings.

1. Special description

a. Implementation of Research Results

Classroom action research with the title Enhancing critical thinking skills through investigation group learning model, in social science subjects in fifth grade elementary school students. The implementation process is as much as 2 cycles with the Kemmis and McTaggart models consisting of several stages, namely planning, implementing actions, observing, and reflecting.

1) Pre-cycle Data Implementation

Based on preliminary research conducted on May 7, 2018, observations were made in class V SD Kartika VIII-1 Cijantung. Initial data is obtained through process analysis and observation of learning planning, implementation of learning, student activities and student learning outcomes. Seen during the learning
process, the teacher only uses the lecture and assignment methods. The teacher is the center of all social studies learning activities in the classroom. The way to deliver material is less attractive so students tend to be bored and less actively involve students. Students answer questions given by the teacher based on the answers that are in the book or are memorized so that they are only limited to the knowledge available in the book. So that students do thinking activities. The fifth grade students of SD Kartika VIII-1 have a low critical thinking ability in social studies subjects, judging from the lack of students analyzing a problem; they cannot conclude what is known, which is all part of critical thinking. Researchers will use the group investigation learning model to activate students and are expected to improve critical thinking skills in fifth grade students of social studies subjects. Based on the evaluation results given by the researcher, to find out the students' critical thinking skills in the pre-cycle study, to show that there are 4 students declared complete namely Icha, Aileen, Kiky, and Keyla there are 23 students who have not completed Syafira, Haekal, Diaa, Yoga, Akmal, Jonathan, Fira, Nadien, Khansa, Zefa, Darya, Sukmo, Devaska, Deza, Vito, Pandu, Reyno, Regyan, Thareeq, Nada, Avivah, Davis, And Dhirta. The average score obtained by the fifth grade students of SD Kartika VIII-1 is 55.14 which is obtained by students related to the ability to think critically in the pre cycle is still relatively low. This is reinforced by the results of preliminary observations on students conducted by researchers.

2. Implementation of cycle I data
   a) Action Plan for Cycle I
      In accordance with the implementation schedule of the study activities that have been determined. Researchers along with observers hold an initial meeting to discuss the implementation plan of actions that will be carried out in the research process. The activities carried out at this planning stage are designing actions that will be carried out based on the problems found by researchers through observations in the learning process in class V SD Kartika VIII-1 Cijantung. The researcher designed a learning activity by using group investigation learning model.

The thing that needs to be prepared by the researcher for the research is the teacher observation sheet and student activity in accordance with the steps of the group investigation learning model, learning support media / tools, RPP implementation plan, critical thinking learning outcomes test instruments and camera documentation tools.

b) Implementation of Cycle I Action
   This initial observation activity was carried out on Monday, May 14 2018 at 09.05 - 10.15 WIB. The focus of attention of the researcher on the teacher about students' critical thinking skills is the model of group investigation learning in learning. At this stage the researcher applies the steps that have been planned in the previous stage. The learning process is carried out in the form of group and individual discussions. The implementation of the learning process carried out in cycle I is as follows:

1st meeting
   a. Initial activity
      The first cycle research took place on Monday, May 14 2018 at 10.00. On Monday the 3rd social science subjects after the break, the teacher entered the classroom V. The atmosphere of the classroom was still noisy, there were still some students who were playing. The teacher greets the students, then immediately conditions the class and starts learning. Before starting the lesson the teacher check the students attendant list one by one. Then the teacher conveys the learning objectives. The teacher does apperception by asking students what names of heroes do they know? Then the teacher asks again about the existing legacies from the colonial. Before students do learning with the investigation group learning model, the teacher asks students to read the books. Then the teacher asks who does not understand in the reading in the book. Students are asked to come forward to retell briefly about Dutch colonization.

b. Core activities
   In this activity the teacher uses power point as a media in explaining the subject matter. When receiving the material delivered by the teacher, students are very enthusiastic. After being given an explanation, students understand. Finish explaining the teacher's material and then divide the 5 groups. Each group consists of six to seven students. The group division is
done by the teacher according to the student attendance number because the teacher is easier to monitor. The teacher calls the group representative to take the material, the subject matter to be investigated in a draw. Then the teacher distributes student worksheets to each group. Before students work on student worksheets, the teacher first gives the steps to work on the student worksheet. Each group discussed to solve the questions given to students. Students look for pieces of images to be arranged in full, such as historical pictures about the VOC. Students work together and help each other in discussions, but students still lack understanding in learning by investigation and still ask the teacher. During the discussion process, the teacher only controls each activity and only gives direction to students who experience difficulties.

The teacher asked from one of the groups who had completed and dared to come forward to explain the results of the discussion. The teacher guides each group to investigate each group member to gather resources to solve problems that will be identified or conduct an investigation. Each student is required to contribute ideas to their respective group investigations. Students individually or in pairs gather information, analyze and evaluate, and draw conclusions. Each group member contributes by exchanging information and gathering ideas to be a conclusion. Each group has appointed one group member to read the results of the final report to all group members before being presented in front of the class. Then each group is ready to give the results of their investigation in front of the class in the form of presentations. Other groups listened and responded to the results of the group's advanced presentation. Then the teacher corrects and refines the results of the discussion.

c. End of activities

After the group discussion activity ends, then the teacher invites students to draw conclusions on the learning that has been carried out. Then the teacher communicates learning for the next meeting. The teacher said greetings.

2nd meeting

a. Initial activity

The activity was held on Tuesday, May 15, 2018, with a time allocation of 2 x 35 minutes. The activity carried out is to conduct learning according to the RPP that has been made previously.

At 6:30 the bell rang, the teacher entered the classroom V. The atmosphere of the classroom was still noisy, there were still some students who were playing. The teacher conditions the classroom atmosphere and asks the class leader to prepare to march and pray. The teacher greets students and then the teacher attends the student's presence. The teacher does apperception by repeating the first meeting. This is done to remind you again.

d. Core activities

Students were divided into five groups, four groups consisting of six students and one group consisting of seven students. The teacher shares the topic of the problem, and then the teacher gives instructions on the learning activities that will be carried out. Students are given the opportunity by the teacher to ask questions that are not yet understood. The teacher shares the topic of student worksheets to each group leader. Then students carry out discussions on different topics. The teacher observes student activities and assists students' difficulties. The teacher describes, directs students to analyze the opinions expressed by group members to compile a comprehensive conclusion. Students are given the opportunity to present their analysis in front of the class. The teacher monitors the process of student group discussion activities.

After students complete the group discussion, the teacher asks one group who is willing to come forward to present the results of the group and other group discussions given the opportunity to submit opinions or give opinions to other groups. Then students do question and answer with other groups. The teacher guides and strengthens the results of group discussions.

c. End activities

After that, the teacher and students are discussing the results of the discussion of each group. The teacher provides reinforcement of the results of the discussion, concludes the learning that has taken place. The teacher gives a moral message to students and the teacher communicates learning for the next meeting. The teacher said hello.
3rd meeting

a. Initial activity

The activity was held on Wednesday May 16 2018 with a time allocation of 2 x 35 minutes. To begin learning, the teacher greets, conditions the classroom, absences the student's attendance, and then continues apperception. Then the teacher provokes from the student learning experience with a brief direction on the struggle against the invaders.

The teacher relates the material to be studied with the material previously studied at the previous meeting, by asking a few questions to find out how far the abilities have been obtained at the previous meeting. The teacher conveys the subject matter to be achieved.

In this activity, the teacher explained briefly the material of the struggle against the invaders to be studied with a little direction that provoked the student learning experience. The teacher shows students a piece of paper and asks questions about the struggle against the invaders.

b. Core activities

Students sit back in groups. The teacher prepares several topics to be analyzed by students, topics to be discussed. Group representatives come forward to choose the topic to be discussed. Students carry out discussions with the topic they have obtained. The teacher observes and assists students' difficulties in discussing around. Each group investigates and analyzes the opinions expressed by members of the group to compile a comprehensive conclusion. Each group member is given the opportunity to present the results of his work in front of the class. Students from other groups can ask questions and give suggestions. Teachers pay attention to student activities. After getting answers or information from other sources, each group conducts an investigation. The teacher walks around helping the group that is having difficulties. Then representatives from each group were asked to present the results of the discussion in front of the class.

c. End activities

At the end of learning, the teacher identifies strengths and weaknesses in learning. Students and teachers together conclude the material that has been learned. Then the teacher gives the ability evaluation questions in the form of a written test and is done individually with a span of 30 minutes. After the time given to work on the questions ends, the teacher collects the results of the evaluation tests that have been done. Then the learning ends with the teacher greeting.

Action Cycle I Observation

When carrying out learning activities in the classroom, especially in cycle I, namely actions I to action III, observers make observations while doing learning activities as stated in the lesson implementation plan (RPP). After the implementation of the first cycle research activities counted three meetings which began on Monday, May 14 2018 until Wednesday, May 16 2018. This will be an evaluation of the consideration and improvement of the problems faced, as a step in finding solutions to improve critical thinking skills of students.

Based on observations made by observers, the acquisition of teacher and student activity values is still relatively low. Then it is necessary to improve both of them to be implemented in the next cycle.

The final stage in the first cycle of learning, researchers conducted a written test to improve the ability to think critically in social studies learning by using a group investigation model. Based on the results of the test it can be seen how much the development of students in understanding the material.

In the findings of cycle I about students' critical thinking skills in social studies, students have not reached the expected researchers, namely 17% or 6 students get a value of ≥ 70, while 29% or 21 students get a score of <70 or in other words still incomplete. As for based on the results of observations of the learning process action which includes the teacher's activities in learning by 73% and the observation of student activities in learning by 64%.

Reflection of Cycle Actions I

The reflection is done by researcher as the final steps of each cycle. Reflection is done to evaluate activities which are done during the research. The main purpose of this reflection is to find out and understand the advantage and disadvantage gained during the studying and teaching process on the 1st, 2nd, and 3rd meeting on cycle 1.

Observations made during the implementation process, students with a score of 100 as many as 3 people (8.5%), a value of 90 as many as 7 people (22.8%), a value of 80 as many as 4 people (28%), a value of 70 as many as 5 people (17%), score 60 as many as 3 people (8.5%), value 50 as much as 2 people (5.7%), value 40 as much as 3 people (8.5%) or in other words understanding mathematical concepts on flat-build material still far from expectations.

As for some of the things found at the stage of implementing the action both at the first or second
meeting in the first cycle, it was good, among others: the teacher was good enough in doing apperception in linking material with daily life. Disadvantages that are still found include: 1) the learning process is good but there are still students who are fun joking with group friends during the learning process, 2) students still experience difficulties in explaining, 3) cooperation has begun to be established even though there are still some who look confused daydreaming did not participate in group discussions, 4) students had started to get used to group discussions, even though students still liked having difficulty in learning with broken triangle, 5) students had begun to dare to explain the results of group discussions even though the voice still sounded less loud and clear, 6) students from other groups were courageous enough to respond even though the response was inappropriate, 7) students in summing up the learning were seen issuing their own opinions even though they were still embarrassed.

Based on the findings that occurred in the first cycle and compared the field notes about the shortcomings and advantages in learning activities, researchers and observers argued that the implementation of social studies learning in the struggle against invaders through group investigation was not optimal. Therefore, researchers and observers decided to make learning action plans in cycle II. Actions in cycle II are the results of revisions from cycle I with the aim of improving students' thinking skills.

**Implementation Data Cycle II**

a. Revised action plan, based on the results of the implementation in cycle I, researchers and observers found problems during the learning activities. From these findings, the researchers made planning input actions and suggestions from observers at the reflection stage in cycle I.

b. The series of learning activities with the group investigation model. Researchers prepare learning implementation plans (RPP), with learning activities that use the investigation group learning model, 2) Action observation sheets namely teacher activities and student activities, 3) create student worksheets and evaluation sheets, 4) prepare documentation tools to document learning activities during the research activity process.

c. Implementation of Cycle II Action, The second cycle research action was carried out during the three meetings. The activities carried out in the cycle II action are adjusted to the planning that has been made according to the group investigation learning model. This research took place on Monday, Tuesday and Wednesday. The following are actions taken during cycle II.

**1st meeting**

The activity will be held on Monday 21 May 2018, with a time allocation of 2 x 35 minutes. The activities carried out are conducting learning according to RPP with social studies subjects with basic competencies that have been made previously. The learning steps at the meeting are as follows:

a. Initial activity

In the initial learning activities, at 10.00 the teacher began to enter class V by saying greetings. The atmosphere of the classroom is still noisy, there are still some students who are playing. The teacher conditions the classroom atmosphere and asks the class leader to prepare to pray. Then the teacher absences the student's presence, followed by question and answer by repeating the material in the previous cycle and learning material and conveying the learning objectives to be achieved. The teacher gives motivation to students to follow the learning well.

b. Core activities

The teacher explains the subject matter of the struggle against the invaders. Then students divide into 5 groups, each group consisting of 5 or 6 students with different members. In cycle II the formation of groups based on random. Teacher uses folded small paper with numbers to divide group of students. Each group leader was asked to come to the front of the class to take the student worksheets, each group was given an agreed time to discuss and analyze the questions that the teacher had given. Each group starts the discussion activity by listening to the opinions of the group members to make a conclusion that later the answers from each group member will be combined and re-analyzed for presentation. When students discuss, the teacher monitors the process of discussion groups of students who experience difficulties. Once finished, representatives from each group were asked to present the results of the discussion in front of the class. Students are given the opportunity to ask questions or give opinions to other groups. During the group presentation, there were several groups who asked questions to the group who were presenting in front of the class. The teacher guides and strengthens the results of group discussions.
c. End activities
The teacher and students discuss the results of the discussion of each group. The teacher provides reinforcement of the results of the discussion. Teachers and students both conclude learning that has taken place. The teacher gives a moral message to students and the teacher communicates learning for the next meeting. The teacher greets all students.

2nd meeting
The second meeting was held on Tuesday, May 22 2018 with a time allocation of 2 x 35 minutes. At 6:30 a bell rang, after the flag ceremony was over the teacher entered the classroom V.

a. Initial activity
The teacher conditions the classroom atmosphere and asks the class leader to prepare to pray. The teacher greets and then the teacher attends student attendance. Then the teacher gives motivation to students. The teacher does apperception, linking the material to be studied with the previous material that has been learned in the previous cycle, by asking a few questions to find out how far the ability has been obtained in the previous cycle.

b. Core activities
The teacher instructs students to first join in each group so that students are easy to learn in groups. After that the teacher gives the topic of problems to students to be discussed with the group members. After all groups have gotten the problem topic, the next task is to investigate or discuss with a group friend. At the time of the group discussion there were still some students who were passive, just silent, not contributing to the group. With these conditions the teacher immediately intervenes by continuing to provide direction and motivation so that all students can play an active role in investigative activities. Then the teacher gives students 20 minutes to investigate. After that, students prepare reports on the results of group investigations to be presented in front of the class. Then each group presented the results of the group's work. Students from other groups can ask questions and give suggestions. Teachers pay attention to student activities, correct and perfect the results of the discussion.

c. End activities
Teachers and students discuss the results of the discussions of each group. Then the teacher asks students questions and answers about the material that has been learned for deeper knowledge to students. The teacher provides reinforcement of the results of the discussion. The teacher together with students concludes the learning that has taken place. The teacher gives a moral message to students and the teacher communicates learning for the next meeting, the teacher greets.

3rd meeting
The activity was held on Wednesday, May 23, 2018, with a time allocation of 2 x 35 minutes. At 6:30 a bell rang, the teacher entered the classroom V SD Kartika VIII-1. The atmosphere of the classroom is still noisy, there are still some students who are playing.

a. Initial activity
The teacher conditions the classroom atmosphere and asks the class leader to prepare to pray. The teacher greets students and then the teacher attends the presence of students one by one. The teacher performs apersion by reviewing the material that is past and provides motivation. Then the teacher asks questions and answers with students and relates the material to be studied with the previous material with students going to the front of the class. Teachers convey learning objectives that will be achieved in the learning process. The teacher explains a little about the material to be studied and provides direction on the stages that students will go through in learning.

b. Core activities
In this activity, the teacher divides students into 5 groups that are different from the groups before, each group consisting of 5 or 6 students. The group division is done by counting which starts from the right front of the bench. Students count from one to five alternately until all students finish counting. All students who say the number one when counting together with other students who also say the number one to become a group, while students who count the number two gather with students who say the two numbers into one group and so on. Noises were heard from some students. After each student has sat with the group members, the teacher presents the learning steps that will be discussed by students, namely each group makes 5 questions and is given less than 15 minutes. Then the teacher distributed materials and cards to each group to write the results of the group's work. Each student starts to have a group discussion to ask
questions. After all groups have done their work. Then representatives of each group collect the results of their work to the teacher. Then the teacher starts to do questions and answers to the group who succeeded in answering questions from the teacher. Then until all questions are answered and get the highest score. At that time there were two groups that had the same score. So the teacher gives additional questions to find out which group has the highest score. From these activities the second group has the highest score compared to the other groups. The group that has the highest score will get a reward.

c. End activities
Students together with the teacher draw conclusions on the learning that has been learned. The teacher asks students to calm down and sit on each other’s seats. Then the teacher gives evaluation questions of critical thinking skills in the form of written test questions and is done independently with a span of 30 minutes. After the agreed time to work on the problem has ended, the teacher asks students to collect the results of the evaluation tests that have been done. Learning ends with giving praise to all students as a form of reinforcement. Then the teacher said greetings.

**Cycle II Action Observation**

Observations are carried out directly as long as learning activities are the same as observations in cycle I. In this cycle there is a good development compared to the previous cycle. Where in this learning process has experienced a very good improvement. There are no shortcomings found in the learning process where only things are already good. As for the value of the results of observations of the learning process that includes teacher activities in learning by 91% and the results of student activities in learning by 82%.

From the analysis of learning outcomes that have been obtained has increased from the previous cycle and has reached the target set which is equal to 92% or 25 students get a value > 70. As for 8.5% or 2 students get a value of <70, this means research conducted it has been successful, so the research does not proceed to the next cycle.

Based on the results in cycle II regarding the ability to think critically in the learning of social science through the group investigation learning model, students have reached the expected target of 85% of the number of students getting grades > 70.

**Reflection on Cycle II Actions**

Based on the results of observations carried out at the end of the cycle, it aims to find out how far the results obtained during the activity. In order to find out the location of errors or shortcomings that has been done before so as to make the achievement of critical thinking skills in the second cycle not according to expectations and targets. After analyzing the critical thinking ability in cycle II from the first meeting to the third meeting, the results of this study do not need to be continued to the next cycle or cycle III or end because the target has been achieved, and the implementation of the learning process that has been optimally implemented, the researcher and observer concluded that the activities carried out were sufficient and there was no need to carry out a learning improvement plan in the next cycle.

**Data Analysis**

1. Quantitative Data Analysis

This research is to improve students’ critical thinking skills through the investigation group learning model in the learning of social sciences in fifth grade students of SD Kartika VIII-1 Cijantung. It is conducted on pre-cycle and two cycles where each cycle is held three times. The following is a graph of data on increasing critical thinking skills of fifth grade students in social studies learning can be presented as follows:

![Graph of data on increasing critical thinking skills](image)

Data increases students' critical thinking ability through a model group investigation in class V social science subjects

Based on the table and diagram above, it can be seen that the comparison of the results of the first cycle to the second cycle shows that there is an increase in the ability to think critically in the material struggle against invaders in each cycle. Thus, it can be stated that the use of the investigation group learning model can make one of the alternatives in learning, especially in social science in the struggle against invaders.
2. Qualitative Data Analysis

Based on the field notes, the teacher observation sheet and documentation shows that students' critical thinking skills are not in line with this expectation because in the first cycle students first use the group investigation learning model. So that at the first cycle meeting, there were some problems encountered by the questionnaire such as the use of the group investigation model was not maximal, the lack of student activity, the students played more, when the group division there were several students who did not agree with the group, lack of confidence to give opinions during the discussion, students still have difficulties to make conclusions, students analyze when learning is still inappropriate, the language used is not good enough, and the lack of learning resources. Learning becomes less maximal. So, it influences students' critical thinking skills. It can be seen from the evaluation value given by the teacher in the first cycle at the end of the action that most of the students who have not reached the KKM are 70. In the first cycle students who have not yet completed reached KKM or have not yet completed that is 49% while the students complete 51%. In other words, students' thinking ability is still low, there are still many students who have not reached the KKM. So we need to follow up again to the next cycle.

The study then continues the next cycle, namely the second cycle to improve what happened in the previous cycle. Based on field notes, observation sheets, and documentation after carrying out the learning activities in Cycle II, students' critical thinking skills have increased at the second cycle meeting. The learning process of students begins to be able to analyze what is given by the teacher, more confident when arguing to conclude, students are more active, serious when learning. Thus, the use of the investigation group learning model in the cycle II activities can be carried out optimally and affect students' critical thinking skills. It can be seen from the evaluation value in cycle II that the action ends shows that most of the students are in line with the KKM's expectation of 70. In the second cycle students who reach the KKM or are complete are 92% and students who have not completed 9%. In other words, students' critical thinking skills have increased and are not needed to follow up again to the next cycle.

Discussion

The research has been done to improve students' critical thinking skills through the investigation group learning model in class V students of SD Kartika VIII-1 Cijantung with material struggle against invaders.

Increasing the ability to think critically in the learning of social science is assessed based on a curriculum that emphasizes cognitive, affective, and psychomotor aspects. Based on this aspect the researcher uses the required aspects through the test results given at the end of the cycle to measure students' critical thinking skills.

CONCLUSIONS, IMPLICATIONS AND SUGGESTIONS

Conclusion

The investigation group learning model can improve the critical thinking skills of fifth grade students of SD Kartika VIII-1 Cijantung. In the first cycle learning uses the group investigation model with the following steps:

- Learning is done in groups. Each student is divided into five groups with heterogeneous group members. The teacher carries out the topic selection by referring to the teacher instructing each group to choose the topics that have been provided. Learning topics that are shared with each student, in which there is a problem that must be resolved by students through analysis, then the students do the analysis. Each group presented the results of the analysis and the system conducted by the group. During carrying out the learning by using the learning model of investigation group in the first cycle there are still obstacles. So it continues to cycle II to correct the deficiencies that occurred in the first cycle by revising the actions. In cycle II, the investigation group learning model helps students in organizing information received by students so that students will be more active in building their knowledge and processing information. Based on the explanation above it can be concluded that learning using the investigation group model can improve students' critical thinking skills. This model students can actively learn and increase their understanding of the material being taught and can motivate students in learning activities can also trigger students to understand the material provided by the teacher. On the basis of students' interest in learning, there will be boredom and boredom when learning. Knowledge and abilities obtained by students in social studies learning will be the basis for improving and developing students' abilities in their social sciences.

Implications

The expected implications of this action research are:

1. The teacher can understand that the investigation group learning model is the right learning model in social studies learning because by using this learning
model students are not only able to motivate students in learning activities but also can trigger students to understand the material provided by the teacher. On the basis of students' interest in learning, there will be boredom and boredom when learning.

2. In using this learning model, the teacher's ability to design learning with the right techniques and the right media is needed.
3. School managers need to provide the tools, facilities and infrastructure needed for learning, especially in social studies learning.
4. The teacher tries to always update the learning model that develops so that it is not trapped in a model that should no longer be used in learning especially in social studies learning.

Suggestions
1. Group Investigation learning model One learning model that is very appropriate and suitable to be applied in improving students' critical thinking skills in school.
2. The teacher conducts classroom action research to improve the learning process carried out in his own class.
3. Schools provide tools, facilities and infrastructure including online networks for learning enhancement.
4. The school principal periodically supervises the class teacher and discusses the results of the supervision with the teacher concerned.

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