

Improving Critical Thinking Skills and Learning Outcomes through the Implementation of the Inquiry Learning Model in Social Studies

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ABSTRACT

This study aimed to identify the application of the inquiry learning model in improving (1) critical thinking skills, and (2) learning outcomes in Social Studies of grade VIII A students at State Junior High School 1 Girimulyo Kulon Progo in 2021/2022 school year. This was a classroom action research consisting of 2 cycles with 3 meetings of each. Subjects involved students at State Junior High School 1 Girimulyo Kulon Progo in the 2021/2022 school year. Data were gathered from observations, test learning outcomes, and, documentation. Qualitative data and quantitative data data were analyzed by using descriptive statistical analysis. Results showed that the learning inquiry model applied was able to improve students' (1) critical thinking skills reached 80% excellent category indicated at pre-cycle, cycles I and II with class score averages of 55.40 (45,16%), 67.00 (61,29%) and 86.61 (80,65%) at lower, good and very good categories, respectively, (2) learning outcomes in Social Studies subjects 80% of students reach KKM = 751 indicated at pre-cycle for Daily Test 1 and 2 with score averages of 62,26 (19,35%) and 63,87 (22,58%) at not mastery and not mastery categories, respectively, at cycles 1 and 2 with class score averages of 73.55(58,06%) and 80.00 (90).

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1. Introduction

Education is a crucial instrument for improving the quality of human resources. Enhancing human resources is vital to ensure the survival of a nation. Education represents a dynamic manifestation of human culture that is rich in development; thus, it requires continuous change or development in the field of education. The concept of change here refers to the continuous improvement of educational quality as a step to anticipate progress and future interests.

The national education objectives outlined in Law No. 20 of 2003, Article 3, emphasize the role of education in developing capabilities, shaping character, and fostering the dignity of the nation's civilization to enlighten the nation's life. The ultimate goal is to develop the potential of learners to become individuals who are faithful and devoted to the Almighty, possess noble morals, are healthy, knowledgeable, skilled, creative, independent, and responsible citizens (Law No. 20, 2003:3).

According to Ministerial Regulation No. 22 of 2006, national education functions to develop capabilities and shape character and civilization to enlighten the nation's life. The aim is to develop the potential of learners to become individuals who are faithful and devoted to the Almighty, possess noble

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morals, are healthy, knowledgeable, skilled, creative, independent, and responsible citizens (Ministerial Regulation No. 22, 2006:3).

Teachers, as significant elements in the field of education, play a crucial role in realizing national educational goals and implementing them in the classroom to support the success of education. As educational systems evolve and the professional responsibilities of teachers in the learning process increase, teachers are required to strive for changes in the conventional learning system towards more student-centric approaches.

This type of learning is often referred to as contextual learning. Contextual learning actively engages both students and teachers, promotes the development of new skills, and creates a connection between learning activities in school and the community. Through this form of learning, students are encouraged to be more responsive in applying knowledge and skills contextually in real-life situations, fostering high motivation for learning.

Among the numerous learning models available for teachers, one effective approach is the inquiry learning model. The inquiry learning model enhances students' abilities to think critically, enabling them to seek and discover knowledge independently. This cultivates students' confidence and develops intellectual capabilities, emphasizing not only mastery of the subject matter but also the utilization of their potential to achieve optimal learning outcomes, especially in the context of Social Studies (IPS) learning.

In the IPS learning process, critical thinking skills can be nurtured, considering the subject often revolves around concepts or issues present in students' environments. To foster critical thinking skills, continuous and planned exercises based on students' thought patterns are essential. These exercises need to be conducted regularly and intensively, ultimately training students to develop more critical thinking. Therefore, a change in teaching methods and models that support students in developing critical thinking skills and improving their learning outcomes is necessary.

The implementation of the Inquiry learning model in the IPS subject is expected to enhance students' critical thinking skills and to improve IPS learning outcomes. Furthermore, drawing from prior research of Novianto et al. (2023), it is evident that the Yogyakarta Theosophy branch played a role in cultivating cultural consciousness in the Javanese historical context, resulting in the development of Javanese nationalism through political movements, pedagogy, and andragogy. The political endeavors included efforts to establish a Javanese nation-state under Suryokusumo's leadership, while Ki Hadjar Dewantara founded Perguruan Tamansiswa, an institution aimed at nurturing students' personalities based on their talents and cultural backgrounds. Additionally, Suryomontar introduced Javanese andragogy.

Based on these issues, the researcher formulates the following problems for this study: How does the application of the inquiry learning model contribute to the improvement of critical thinking skills in IPS for eighth-grade students at SMP Negeri 1 Girimulyo in the Academic Year 2019/2020? Additionally, how does the inquiry learning model impact the improvement of learning outcomes in IPS for eighth-grade students at SMP Negeri 1 Girimulyo in the Academic Year 2019/2020? The objectives of this study are to enhance critical thinking skills in the IPS subject for eighth-grade students at SMP Negeri 1 Girimulyo in the Academic Year 2019/2020 through the implementation of the Inquiry learning model and to improve IPS learning outcomes for eighth-grade students at SMP Negeri 1 Girimulyo in the Academic Year 2019/2020 through the application of the Inquiry learning model.

2. Method

This research adopts the action research type using the Kurt Lewin model. According to Kurt Lewin (as cited in Wina Sanjaya, 2009:49), there are four essential steps in the action research process: planning, action, observation, and reflection. Classroom action research involves scrutinizing a learning activity in the form of intentional actions that occur collectively in a classroom. These actions are initiated either by the teacher or under the guidance of the teacher and are carried out by the students (Suharsimi Arikunto, 2008:3). The subjects of this study are the eighth-grade students of Class A at SMP Negeri 1 Girimulyo, totaling 31 students.

Data collection techniques in this research include observation, documentation, and learning outcome tests. Instruments utilized in this study consist of observation sheets to monitor the learning process using the inquiry learning model, as well as the critical thinking abilities of students. Tests are employed to assess the achievement of IPS learning outcomes, allowing for the evaluation of improvements in students' IPS learning outcomes before and after the implementation of the Inquiry learning model.

Data analysis techniques employed in this research encompass both qualitative and quantitative analyses. Qualitative analysis involves the examination of data on critical thinking abilities and students' learning outcomes resulting from observations. Quantitative analysis utilizes descriptive statistical analysis, with data expressed numerically and further described in sentences presented alongside tables. The quantitative data analysis involves the scores obtained by students in the learning outcome tests at the end

of each cycle, used to assess the achievement of learning outcomes through the implementation of the Inquiry learning model.

3. Result and Discussion

Before the research was carried out, the researcher made observations to collect problems which will researched by collecting data from the results of daily tests and during discussions in class. From the results of the researcher's observations, the problems faced by researchers are: students' low critical thinking skills as an indicator that students still have difficulty formulating the main problems of the material being taught, students still have difficulty answering questions correctly, students still have difficulty finding relevant learning resources and accurate, students still find it difficult to ask questions during class discussions and students still lack confidence in presenting discussion results, the low level of social studies learning outcomes for class VIII A students is caused by students being lazy to read material which tends to be a lot and boring, students only memorize the material without understanding the material studied so that students do not master the material so that when the material is tested students are unable to answer questions correctly, of course this can have an impact on student learning outcomes in social studies subjects. The assessment results show that there are still many students whose scores have not reached the KKM set for social studies subjects, which is 75.

The pre-cycle results show that the critical thinking ability of class VIII A students has an average score of 55.40 in the poor category so that the critical thinking ability of class VIII A students needs to be improved. Researchers feel it is necessary to find solutions to problems to improve the thinking abilities of class VIII A students, namely by implementing a learning model that is able to help students to develop students' mindsets to think critically, namely by implementing an inquiry learning model.

The application of the inquiry learning model can train students to develop thinking skills through the ability to formulate key issues, the ability to analyze, the ability to synthesize and make conclusions.

Reject measuring to measure student learning outcomes in the pre-cycle. Researchers used the results of daily test 1 which had an average of 62.26 and daily test 2 had an average of 63.87 in the incomplete category. This data is used to compare the learning outcomes achieved by students before implementing the inquiry learning model and after implementing the inquiry learning model so that it can be seen whether or not there has been an increase in student learning outcomes to measure the success of implementing the inquiry learning model in improving students' social studies learning outcomes.

This study carried out using 2 (two) cycles. Each cycle consists of 3 (three) meetings. The research was carried out By the social studies lesson schedule in class VIIIA. The results of the research conducted in cycle 1 showed that the critical thinking skills of class VIII A students in social studies subjects by applying the inquiry learning model in cycle 1 obtained the following data:

Table 1. Observation Results of Cycle 1 Students' Critical Thinking Ability

Meeting	Class average	Category	Percentage
I	59.02	Enough	45.16
II	63.82	Enough	64.52
III	67.00	Good	61.29

(Source: Data that has been processed)

Based on the table above, students' critical thinking abilities in cycle 1 have increased so that by implementing the inquiry learning model, students have improved their thinking patterns, through the steps of the inquiry learning model, students can formulate problems to the point of making conclusions systematically.

Based on these data, the learning outcomes of class VIII A students in social studies subjects in cycle 1 experienced an average increase in learning outcomes of 73.55, absorption capacity of 58.06%, when compared with learning outcomes in the pre-cycle for daily tests 1 reaching an average of 62.26 and daily test 2 reached an average of 63.87. Based on the research results in cycle 2 for students' critical thinking abilities for meetings 1, 2 and 3, students' critical thinking abilities in social studies tended to increase. Shown by data from analysis of observational data during the learning process as follows:

Table 2. Observation Results of Students' Critical Thinking Ability in Cycle 2

Meeting	Average value	Category	Percentage
I	75.79	Good	32.26
II	79.77	Good	25.81,
III	86.61	Very good	80.65

(Source: Data that has been processed)

Based on these data, the learning outcomes of class VIII A students in the social studies subject increased in cycle 2. By the indicators of success in learning outcomes, 80% of all students in the class completed the KKM in social studies, which was 75, so this research was only carried out using 2 cycles.

Discussion

Initially, inquiry learning was widely applied in the natural sciences. However, social science education experts adopted inquiry learning which was later called social inquiry. This is based on the assumption of the importance of social studies learning in a society that is increasingly changing rapidly, as stated by Robert A. Wilkins (in Wina Sanjaya, 2006: 205) who states that in society life is constantly experiencing change. According to experts, the objectives of social studies are often related to various angles of interest and emphasis of the educational program. According to Gross in Etin Sobayarin (2008: 14) states that the aim of social studies education is to prepare students to become good citizens in their lives in society. According to Somantri (in Sapriya, 2009: 11) Social Science education is a simplification or adaptation of the social science disciplines and humanities and basic human activities that are organized and presented scientifically and pedagogically/ psychologically for educational purposes.

Social studies teaching must emphasize the development of thinking. According to him, the explosion of knowledge requires a change in teaching patterns from simply memorizing facts which is usually done through traditional learning strategies to developing critical thinking skills. The learning strategy that can develop thinking abilities is called the social inquiry learning model.

The inquiry learning model is a learning model that emphasizes the process of thinking critically and analytically to search for and find the answer to a problem yourself so that this learning model can be used by teachers in the learning process to create an active learning process. Application of learning models this involving students actively in the learning process is good for helping students develop thought patterns and helping them find solutions to solve problems. This learning model emphasizes the process of seeking and discovering their knowledge so that teachers are in the learning process as a facilitator and motivators for students in the learning process.

Implementation of the inquiry learning model can follow the following steps:

1) Orientation

The orientation step is a step to create a responsive learning climate or atmosphere. In this step, the teacher conditions students so that they are ready to carry out the learning process. In this step the teacher stimulates and invites students to think about solving problems.

Some things that teachers can do in the orientation stage are:

- Explain the topic, objectives and learning outcomes that students are expected to achieve
- Explain the main activities that must be carried out by students to achieve the goal. At this stage, the inquiry steps and the objectives of each step are explained, starting from formulating the problem to formulating conclusions.
- Explain the importance of the topic and learning activities. This is done to provide student learning motivation.

2) Formulating the Problem

This brings students to a problem that contains a puzzle. The problems presented are problems that challenge students to think about solving the puzzle. It is said that the puzzle in the formulation of the problem that you want to study is because the problem certainly has an answer and students are encouraged to look for the right answer. The process of finding the right answer is very important in inquiry learning. Therefore, through this process, students will gain valuable experience as an effort to develop mentally through the thinking process.

3) Formulate a Hypothesis

A hypothesis is a temporary answer to a problem being studied. As a temporary answer, the hypothesis needs to be tested for truth. One of the ways teachers develop the ability to hypothesize in each child is

to ask various questions that can encourage students to be able to formulate temporary answers, or to formulate various estimates of possible answers to a problem being studied that are rational and logical.

4) Collecting data

Hypotheses are used to guide the data collection process. In collecting this data, students need to consider the use of various books and various other materials that they find in magazines, articles, and newspapers in the school library or through personal interviews and various other sources.

5) Testing Hypotheses

Testing a hypothesis is the process of determining answers that are considered acceptable according to the data or information obtained based on data collection. The most important thing in hypothesis testing is finding the level of student confidence in the answers given. Besides that, testing a hypothesis means developing the ability to think rationally. This means that the correctness of the answers given is not only based on arguments but must be supported by the data found and can be accounted for.

6) Formulating Conclusions,

Formulating conclusions is the process of describing findings obtained based on the results of hypothesis testing. Formulating conclusions is the end of the learning process. To reach an accurate conclusion it is best teacherable to show which data is relevant.

Inquiry is to provide a way for students to build intellectual skills (thinking skills) related to reflective thinking processes. If thinking is the main goal of education, then ways must be found to help individuals develop thinking abilities (Nunuk, 2012: 119). The final target of the inquiry learning model is that students can formulate conclusions in their own language regarding the material provided (Janawi, 2013: 206).

Based on the results of initial observations, several problems were found in the social studies learning process at SMP Negeri I Girimulyo. Some of the problems found include teachers still often using conventional learning methods so that students are not directly involved in the learning process so that students only receive knowledge from the teacher without making any effort to find that knowledge themselves, students tend not to pay attention and feel bored in the learning process, students lack confident to ask or answer questions, students are less trained to find their knowledge so that students' critical thinking skills are less trained, students find it difficult to understand the subject matter so that it tends to influence student learning outcomes.

Based on the problems found a solution to solve the problem is carried out, namely by applying the inquiry learning model to help students train and develop their critical thinking skills so that there is an increase in critical thinking skills which can ultimately increase students' understanding of the subject matter which will influence student learning outcomes in inquiry subjects. The research was conducted in two cycles, each cycle consisting of three meetings. The application of the inquiry learning model in social studies learning activities in cycles 1 and 2 aims to improve students' critical thinking skills and student learning outcomes in social studies subjects. The results obtained during research activities in cycles 1 and 2 are as follows:

1. Kitis's thinking ability

Implementation of learning by applying the inquiry learning model. Use of learning models. This make students can develop critical thinking skills by applying the steps in the inquiry learning model with stages from asking questions or formulating problems, proposing hypotheses, collecting data, testing hypotheses and formulate conclusions (Trianto, 2014: 84). Based on the results of observations during the learning process in the cycle 1 and Cycle 2 shows an increase in students' critical thinking skills, this is proven by the results of observations during the learning process as follows:

Table 3. Increase in Critical Thinking Ability of Pre-Cycle students, Cycle I and Cycle II

Meeting	Class average		Category	Percentage
Pre Cycle	55.40		Not enough	45.16
Cycle 1	I	59.02	Enough	45.16
	II	63.82	Enough	64.52
	III	67.00	Good	61.29
Cycle II	I	75.79	Good	32.26
	II	79.77	Good	25.81
	III	86.61	Very good	80.65

(Source: Processed data)

In cycle 2, there is a noticeable increase in the class average, attributed to students becoming accustomed to the inquiry learning model. This model assists students in thinking critically through the steps within the inquiry learning model. The inquiry learning model can be implemented by teachers as a step to enhance students' critical thinking abilities, particularly in the subject of Social Studies, which continually evolves and requires problem-solving skills in societal contexts.

2. Student Learning Outcomes

Student learning outcomes are often utilized as a measure of how well an individual has mastered a particular subject that has been taught. According to Winkel (1996), as cited by Purwanto, learning outcomes represent changes that lead to an individual's transformation in attitudes and behaviors. This transformation aligns with the taxonomies of Bloom, Simpson, and Harrow, encompassing cognitive, affective, and psychomotor aspects (Purwanto, 2019: 45).

Furthermore, according to Wasliman as cited in Ahmad Susanto (2018:13), school is a determining factor in shaping students' learning outcomes. The higher the students' learning abilities and the quality of teaching in the school, the higher the students' learning outcomes.

Based on the learning outcomes achieved by students, from the pre-cycle to cycle 2, the following indicates an improvement in learning outcomes: In the pre-cycle, the average learning outcomes of students in Daily Test 1 reached an average of 62.26 with an absorption rate of 19.35%, and in Daily Test 2, the average learning outcomes reached 63.87 with an absorption rate of 22.50%. In Cycle 1, the average learning outcomes of students reached 73.55 with an absorption rate of 58.06%, and in Cycle 2, the average learning outcomes of students reached 80.00 with an absorption rate of 90.32%.

4. Conclusion

The following conclusions can be drawn based on the preceding discussion:

- a. The data analysis in cycle 1 indicates that students' critical thinking skills during the first meeting achieved an average class score of 59.02, categorized as "sufficient." In the second meeting, the average score increased to 63.82, maintaining the "sufficient" category, and in the third meeting, it further improved to an average class score of 67.00, reaching the "good" category.
- b. The analysis of students' critical thinking skills in cycle 2 shows continuous improvement. In the first meeting, the average class score reached 75.79, and in the subsequent meetings, it further increased to 79.77 and 86.61, respectively. This indicates that students' critical thinking skills surpassed the "good" category, reaching an average class score of 86.61.
- c. The implementation of the inquiry learning model can enhance students' learning outcomes in the Social Studies subject. This is supported by the data from the pre-cycle, where the average scores for Daily Test 1 and Daily Test 2 were 62.26 and 63.87, with absorption rates of 19.35% and 22.50%, respectively. Learning outcomes in cycle 1 reached an average of 73.55 with an absorption rate of 58.06%, while in cycle 2, the average score increased to 80.00 with an absorption rate of 90.32%.
- d. The application of the inquiry learning model can improve students' critical thinking skills and enhance learning outcomes.

Recommendations

Based on the conducted research, the researcher offers several recommendations as follow-up actions to ensure that the research findings can provide benefits:

- a. Social Studies teachers should implement the inquiry learning model to make Social Studies instruction more varied. This approach will train students to develop their critical thinking skills, particularly by providing experiences for students to discover knowledge on their own. By building their knowledge, it is expected that students will find it easier to comprehend the subjects they are learning. Additionally, students will acquire the skills to identify and solve social issues they encounter in their lives within the community.
- b. Teachers should assist students in actively developing their thinking abilities by fostering a habit of critical thinking. This can be achieved by presenting problems that require solutions through the steps of the inquiry learning process. Through this method, students will be accustomed to thinking critically about the problems they encounter. Encouraging students to express themselves, ask questions, and respond to inquiries within the framework of the inquiry learning model will enhance students' affective, cognitive, and psychomotor skills during the learning process.

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