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THE EFFECT OF INQUIRY MODEL IN IPAS LEARNING ON STUDENTS' CRITICAL THINKING ABILITY

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Abstract

The low level of critical thinking skills in elementary schools has a significant impact on the development of the times. This skill is essential in today's digital and modernized era. A learning model is needed to improve critical thinking skills, especially in social studies learning. Researchers focus more on social studies learning related to how students identify problems in the community. This study aims to determine the effect of the inquiry model on students' critical thinking skills. This study uses a quantitative research method with a one-group pretest-posttest design. The sample used in this study amounted to 14 Utsman IV class students because they used saturated sampling techniques and student responses according to relevant criteria. Data collection for this study utilized pretest and posttest data. Data analysis was conducted using SPSS version 26. The data analysis technique used to test the hypothesis in this study employed a paired sample t-test, which yielded a value of 0.000 < 0.05, indicating an increase in students' critical thinking skills. Thus, the results of this study reveal the influence of the inquiry model on social studies learning on students' critical thinking skills.

Keywords: *Critical Thinking, Inquiry Model, IPAS Learning*

Abstrak

Rendahnya kemampuan berpikir kritis di sekolah dasar memiliki dampak yang cukup signifikan terhadap perkembangan zaman. Kemampuan ini sangat diperlukan di era digital dan modernisasi saat ini. Model pembelajaran sangat diperlukan untuk bisa meningkatkan kemampuan berpikir kritis terutama pada pembelajaran IPAS. Peneliti lebih memfokuskan pada pembelajaran IPS yang berhubungan pada cara peserta didik mengidentifikasi permasalahan pada lingkup masyarakat. Penelitian ini bertujuan untuk mengetahui pengaruh model inkuiri terhadap kemampuan berpikir kritis siswa. Penelitian ini menggunakan metode penelitian kuantitatif dengan jenis penelitian yaitu

one group pretest posttest. Sampel yang digunakan pada penelitian ini berjumlah 14 peserta didik kelas IV Utsman dikarenakan menggunakan teknik sampling jenuh dan respon peserta didik sesuai kriteria relevan. Perolehan data penelitian ini menggunakan data berupa tes *pretest* dan *posttest*. Pengujian data dilakukan dengan menggunakan SPSS versi 26. Teknik analisis data untuk menguji hipotesis dalam penelitian ini menggunakan uji *paired sample t-test* yang menunjukkan angka sebesar 0.000< 0.05 menunjukkan adanya peningkatan kemampuan berpikir kritis siswa sehingga hasil penelitian ini mengungkapkan adanya pengaruh model inkuiri pada pembelajaran IPAS terhadap kemampuan berpikir kritis siswa.

Kata kunci: Berpikir Kritis, Model Inkuiri, Pembelajaran IPAS

INTRODUCTION

The challenges facing the world of education today are very complex. One of the challenges faced by the world of education is the weakness of the learning process that takes place in the classroom. The world of education has undergone significant changes due to the rapid spread of information and technology (Tohir & Ali, 2020). Each individual is required to have the ability to investigate, critically analyze, and review knowledge well (Davidi, Sennen, & Supardi, 2021; Jannah, Listyarini, Nugroho, & Saputro, 2023). Education in Indonesia today requires a learning process that is not just looking for answers but also testing the answers themselves with awareness of their abilities and learning can begin with the submission of a problem and question (Tohir & Ali, 2020). The reality in the field shows that students' critical thinking skills in IPAS learning are still very low, so that students who are less able to develop new ideas (Ilham & Hardiyanti, 2020). The challenge of learning in today's education system is the need for learning models that support classroom learning activities. In the current period of education, there is a need for a learning model that supports learning activities in the classroom. One example of a learning model is the inquiry model (Haryanti, Sapriya, Permana, Syaodih, & Kurino, 2022). Insight into critical thinking skills is low in some regions of Indonesia (Chusni, Saputro, Suranto, & Budi, 2021; Huda & Abduh, 2021). However, previous studies have not discussed further the inquiry model used to improve students' critical thinking skills in science and social studies learning, especially social studies. In addition, this study has an innovative feature in the form of material on the history of Pari Temple in Sidoarjo. The use of inquiry models is considered appropriate to support the digization of education. The inquiry learning model is a learning activity that focuses on students' critical and analytical thinking processes aimed at researching and examining the answers independently with the right answers to the problems in question. From these activities, a thinking process can be created which can generally be applied through activities such as questions and answers between teachers and students. This learning model consists of six syntaxes, namely 1) orienting students to a problem, namely the teacher encourages students' thinking to think critically in solving a problem; 2) formulating a problem is a step to invite students to face problems that contain a riddle; 3) formulating hypotheses, which invites students to provide temporary answers to the problems they face; 4) collecting data, which invites students to find data that is in line with the problems faced so that the data can be accounted for; 5) testing hypotheses, which is inviting students to develop rational thinking skills supported by the data they get; 6) formulating conclusions, which is defining the answers obtained from hypothesis testing (Majid, 2014).

The inquiry model can create students to have extraordinary ideas so that the teacher's role in this inquiry learning model is as a facilitator and learner-centered learning (Grant, Swan, & Lee, 2023). From this statement, the teacher believes that students can build understanding and be directly involved during learning activities. The inquiry model can improve students' ability to

think critically. This is in line with the demands of the world of education. Education requires students to have competencies, namely the ability to think critically and problem-solving skills, the ability to interact with people around, the ability to create something, literacy skills, and the ability to innovate (Putra & Cimari, 2024). The inquiry learning model can be used in all subjects. In the current independent curriculum, social studies subjects are combined with science subjects which makes the name of the subject change to IPAS. This research focuses on the topic of social studies learning. Researchers have material restrictions because considering we need a research focus by digging deeper into how the process of implementing social studies subjects in this inquiry, we focus on the social studies. Social studies subjects study various things related to social life in society (Andari, Darsana, & Asri, 2019). Science subjects will focus on nature. Social studies subjects focus on social sciences so that it focuses on forming humans who can interact with other humans well and create confidence in the social and cultural conditions that exist in society (Jumriani, Syaharuddin, Hadi, Mutiani, & Abbas, 2021). However, the facts that exist in schools, especially in elementary schools, have unsatisfactory facts, namely the learning that occurs in the classroom shows that social studies learning outcomes are still too low. One of the reasons for this failure is that teachers only require students to answer questions without encouraging students to develop new ideas or thinking skills (Ferrary, Kawuryan, & Herwin, 2023).

Previous studies have shown that the implementation of social studies learning has several problems, one of which is low critical thinking skills due to the lack of an applicable learning model (Ferrary et al., 2023). This study will apply a learning model that is suitable for improving students' critical thinking skills, especially in social studies learning. Nowadays, critical thinking is the most necessary skill. The definition of critical thinking is a process in which knowledge and skills are directed to find solutions, solve problems that occur, make decisions, analyze an existing opinion and conduct research according to the data and information obtained so as to produce the desired information (Ariyana, Pudjiastuti, Bestary, & Zamroni, 2018). In addition, the definition of critical thinking is an activity carried out to solve a problem at hand, make decisions, persuade, analyze information, and conduct research (Helmawati, 2019). This information can be obtained through observation or observation results, one's experience, common sense or from basic facts or through certain social media. It can be concluded that critical thinking is a way of using logic clearly or examining a problem or evaluating information. From this critical thinking ability, we can see the weight of the accuracy or truth of existing information so that we are not consumed by news or information that is fake or hoax. That way we will filter the information we get and think in advance what is conveyed by the interlocutor. Indicators of students' critical thinking are 1) interpretation; 2) analysis; 3) evaluation; 4) inference; 5) explanation; 6) and self-regulation (Facione, 2020).

Previous research has revealed that students' critical thinking skills depend on the learning model applied by teachers (Fazio, Paola, & Battaglia, 2020; Haryanti et al., 2022). It is crucial for a teacher to decide how he or she teaches and assesses in applying critical thinking skills (Alsaleh, 2020; Gulo, 2022). Professional teachers should have a good understanding of the demands of critical thinking (Suratmi & Sopandi, 2022). Therefore, the appropriate learning activities that can be carried out by teachers to support the improvement of students' critical thinking skills are by questioning, reasoning, and communicating skills (Priyanti & Warmansyah, 2021). The results of previous research also show that in social studies learning teachers have not applied critical thinking skills and even learning is still conventional (Ferrary et al., 2023). Exploring students' critical thinking skills requires an appropriate model to support the process of learning activities

that occur in the classroom (Muvid, Septiawan, Lubis, & Zainiyati, 2022). The results of other studies revealed that there were errors in the use of the PBL model assisted by brainstorming so that it did not show an effect because students did not understand the learning stages (Ardyanti & Rezania, 2024).

Critical thinking of elementary school students is low (Putri & Warmi, 2022; Sarwanto, Widi, Fajari, & Chumdari, 2021). This situation is because teachers in schools only tend to focus on information transfer. This has a supporting source of evidence by looking at research that has been carried out by the Indonesian Program for International Student Assessment (PISA) in 2018, PISA says it can measure the ability of students' critical thinking levels. PISA results show that Indonesia is ranked 72nd out of 78 countries. PISA conducted the study with the participation of 12,098 students in 399 units of educational institutions in Indonesia. The sample was taken to represent 85% of the student population aged 15 years old (Rahardhian, 2022). This means that thinking about critical thinking must be formed and developed immediately. Critical thinking can be developed by schools in its application through activities carried out when students are in class. Especially in social studies learning in elementary schools that can make students get a deep experience.

The problems that have been described previously, the researcher wants to improve critical thinking skills by applying a student-centered learning model. The process of learning activities requires the application of a learning model, namely the inquiry model. The inquiry model is an effective model to help children develop critical thinking skills by using higher order thinking processes (Krogh & Morehouse, 2014) . Basically, the purpose of educating is to create critical thinking skills through the assignment that has been given (Ngura, Laksana, Bude, & Mogi, 2020). That way the results obtained can be useful for improving the quality of education in Indonesia. Learning activities carried out in the classroom require communication between teachers and students and students with other students. This inquiry model trains students to interact with their group mates to produce conclusions and concepts (Saputra, Wibawa, & Suarjana, 2020). Students' critical thinking skills can increase if students' interest in learning is high, this is with the application of the inquiry model (Haryanti et al., 2022; Sulistiyani, Budi, Wijayanti, Cahya, & Dinata, 2020). In addition, students' proficiency in critical thinking is higher when using the inquiry model compared to applying the discovery learning model and the traditional learning model (Putra & Cimari, 2024) . This inquiry learning model is also highly recommended by researchers (Setiawan, Sastria, Monica, Januharmen, & Purnawati, 2021; Tusriyanto et al., 2019). This statement can make a strong opinion that this inquiry model can maximize the development and even foster critical thinking skills.

Researchers want to use the inquiry model to improve critical thinking skills in IPAS learning in elementary school. The application is carried out at grade IV level. The selection of grade IV is because in this phase according to Piaget's theory is at the stage of concrete behavior. The concrete behavior stage shows that children's development is characterized by the development of more rational and logical thinking (Agustyaningrum, Pradanti, & Yuliana, 2022). Students at this stage can solve problems very logically so it is the right time to hone students' critical thinking skills at this level. In addition, students can analyze, align, and link the theory they get with reality to draw a conclusion (Mifroh, 2020). Cognitive abilities at this grade IV level are also in the realm of C3 to C6. The researcher used the following problem formulation: “How is the effect of inquiry learning model on IPAS learning for students’ critical thinking skills?” The aim is to determine the effect of inquiry learning model in IPAS learning on students' critical thinking skills.

METHODS

The research used by this researcher is experimental quantitative research. This research applies a pre-experimental research design using a One Group Pretest-Posttest case study design by conducting a pretest and posttest in one class by comparing before and after the implementation of the inquiry model (Ibrahim et al., 2018). The goal is to find out and get the results of students' critical thinking skills more accurately The researcher chose to use a one-group pretest-posttest design, which is ideal for demonstrating the difference in students' critical thinking skills before and after being exposed to the inquiry model (Zulfikar et al., 2024). This allowed the study to focus on a single class, making it highly efficient and practical.This study uses research subjects, namely elementary school students. The population used in this study were all students of class IV Utsman SD Muhammadiyah 11 Randegan which amounted to 14 students. While the sample used is class IV Utsman which amounted to 14 students. This study applied a sampling technique in the form of a saturated sample because the samples used by researchers were all those in the population. This is supported by the guidelines on how to determine the sample, namely that experimental research may use a minimum of 10 samples (Sahir, 2021). The sample used by the researcher was deliberately selected by the researcher based on relevant criteria in accordance with the research objectives. The relevant criteria are they have equal basic abilities, do not have significant learning barriers, and the stage of cognitive development is in the concrete operational phase which is suitable for the inquiry model. The following is a series in accordance with the description of the One Group Pretest-Posttest design, namely Table 1.

Table 1. Research Design One Group Pretest-Posttest Design (Ibrahim et al., 2018)

Class Group	***Pre-test***	***Treatment***	***Posttest***
Class IV Utsman	O_1	X	O_2

Description:

O_1: The results of the pretest scores before being given the implementation of the inquiry learning model

O_2: The results of the post test scores after being given the implementation of the inquiry learning model

X: Implementation of inquiry learning model

This research was conducted in the even semester because IPAS learning, especially in social studies, takes place in the even semester. Therefore, the teacher had not yet delivered the material discussed by the researcher, so the researcher delivered the material directly to the students.The research was implemented in the second semester of the 2024/2025 school year.

This research used a data technique in the forms of giving written tests in the forms of descriptive questions that applied pretest and posttest in class IV Utsman on the material of civilized society. The data collection instrument is a test sheet. The test questions in this study used essay questions or description questions that focused on six indicators of critical thinking skills. The questions used were ten questions. The following are aspects of the critical thinking skills instrument on each indicator found at Table 2.

Table 2. Critical Thinking Indicators (Facione, 2020)

No	Indicator	Skill Aspect
1	Interpretation	Write down something that is used as a problem in the problem by categorizing, recoding data and explaining the meaning associated with the problem.
2	Analysis	Notes ideas and identifies arguments, and identifies reasons for them
3	Evaluation	Ask questions related to evidence / data of a problem, as well as provide / make alternative conjectures, and be able to describe / draw conclusions from data or problems.
4	Inference	Measuring the credibility of a reason and students are able to measure the quality of an opinion/argument
5	Explanation	Writing an explanation of the results they have obtained, being able to explain the procedure to get certain results, and students are able to provide conclusions from a problem.
6	Self-regulation	Write a short review on how to control oneself and monitor oneself

Table 2 explains the indicators for critical thinking. In the critical thinking indicators there are interpretations, analyses, evaluation, inferences, explainers, and self-regulations. Where each indicator will later represent each test question given to fourth grade students of Utsman SD Muhammadiyah 11 Randegan. Later there will be an assessment of the critical thinking ability test score criteria shown in Table 3.

Table 3. Critical Thinking Ability Criteria (Ardyanti & Rezania, 2024)

Percentage	Criteria
81% - 100%	Highly critical
66% - 80%	Critically
56% - 65%	Quite critical
41% -55%	Lack of criticality
0% - 40%	Very uncritical

The data analysis technique uses inferential statistics using the normality test. Normality tests usually aim to determine whether a population of data is normal or non-normally distributed. The test of normality in the study used the shapiro-wilk normality test. Data analysis techniques with descriptive statistics and parametric statistics using paired sample t-test to examine the significant difference between the pretest and posttest in the same group.

RESULTS AND DISCUSSION

RESULTS

Students' critical thinking skills are a change that can occur due to a teaching model. In doing this, we want to know the impact of the inquiry model on students' critical thinking skills that need to be measured first. This study provides several data presentations that support answering the questions in the problem statement. Tests of students' critical thinking skills have been made by researchers in accordance with the indicators to be achieved. To determine if the

data is normal distribution or not, researchers use the data normality test with the help of SPSS 26 software. The data normality test was carried out before conducting the paired sample t-test test because to use the paired sample t-test test, the research data must meet the assumptions of normal distributed. The normality test results for pretest and posttest are as follows.

Table 4. Data Normality Test Results

	Shapiro-wilk		
	Statistik	**df**	**Sig**
Pretest	.932	14	.323
Posttest	.940	14	.418

In table 4, the normality test used is shapiro-wilk since the sample used in this study amounted to < 0.50. According to the results of the data normality test, the results of shapiro-wilk. Calculations on pretest and posttest sig < 0.05, so the data are both normal distribution.

The data contained in table 5. are normal in distribution, so the next step is to determine the research hypothesis using the Paired sample t-test. The software that helps to calculate this Paired sample t-test is SPSS 26. The hypothesis testing is done by comparing two average results. The hypothesis is as follows:

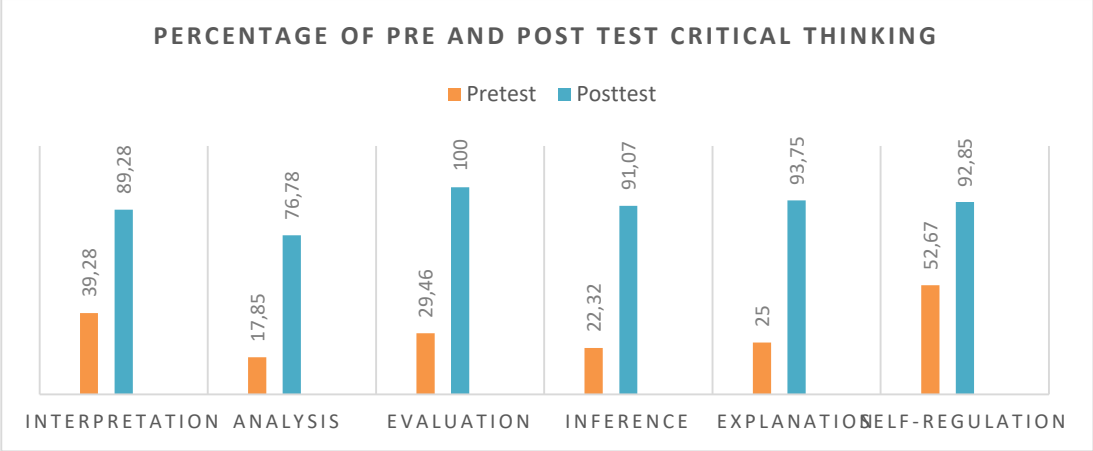
- H_0 : Application of Inquiry does not affect students' critical thinking outcomes
- H_1 : The application of inquiry affects students' critical thinking outcomes

Table 5. Paired Sample T-Test Results

Paired sample test									
		Paired differences							
					95% Confidence Interval of the difference				
		Mean	***Std. Deviation***	***Std. Error Mean***	***Lower***	***Upper***	***t***	***df***	***Sig. (2-tailed***
Pair 1	***Pretest-Posttest***	-60.53571	9.96043	2.66204	-66.28670	-54.78473	-22.740	13	.000

Based on table 5, the paired sample t-test on pretest and posttest was used to compare the findings. The standard deviation of the table shows a value of 9.96043, the standard error of the mean shows a value of 2.66204, and the mean difference between the pretest and posttest is -60.53571. With a 95% confidence interval the difference is -66.28670 and -54.78473. With a degree of freedom (df) of 13 and at a t value of -22.740, the sig. 2-tailed significance value is 0.000. The findings of the critical thinking skills test indicate that there is a statistical significant different because (0.000<0.05) between the pretest and posttest results. Therefore, it can be said that there is a significant difference between them, which means there is a significant impact of the inquiry model on students' critical thinking skills. This shows the results of decision making on the hypothesis (H0) is rejected and (H1) is accepted, meaning that there is a significant impact with the inquiry model to influence students' critical thinking skills.

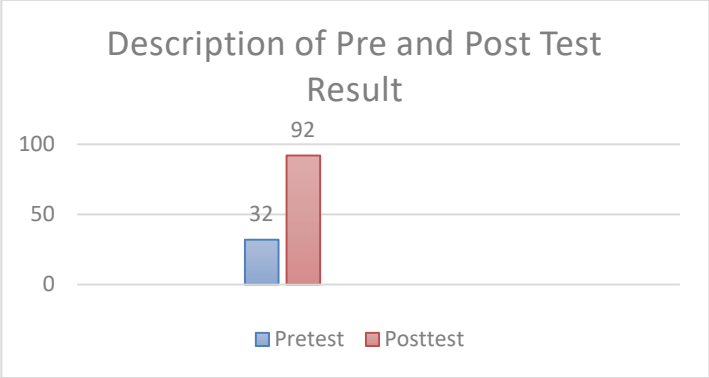
The criteria for the critical thinking ability of each learner, determined through the score of each learner using the predetermined scoring guidelines. Then each score from students is calculated and then the researcher uses the scoring guidelines for the critical thinking ability criteria of each student. The following bar chart has been presented which explains the ability of students at the pretest meeting before being given the inquiry model treatment and the posttest after being given the inquiry model treatment. The following diagram explains the critical thinking skills of students for each indicator as follows:



Graph 1. Critical Thinking Ability of Learners

In graph 1 shown above, it can be seen that the results before treatment show that the average of each indicator is 39.28% in the interpretation indicator, 17.85% in the analysis indicator, 22.32% in the inference indicator, 29.46% in the evaluation indicator, 25% in the explanation indicator, and 52.67% in the self-regulation indicator. This means that the indicators on the critical thinking skills test of students during the pretest or before treatment are still very low. Learners consider that the critical thinking skills test questions that have been given are difficult for them to understand, analyze, and reason. The average results obtained on the indicators also became very low.

At the end of learning when the posttest was given, after being given the inquiry model treatment, it showed that the average of each critical thinking indicator that had been found was 89.28% on the interpretation indicator, 76.78% on the analysis indicator, 91.07% on the inference indicator, 100% on the evaluation indicator, 93.75% on the explanation indicator, and 92.85% on the self-regulation indicator. The mean of each indicator of students' critical thinking skills has increased quite drastically due to the influence of the inquiry model as a treatment that has been given. In contrast to the average results of each indicator before being provided with the inquiry model and after being given treatment in the form of an inquiry model, students find it easy to answer the critical thinking skills test so that the obtained results are also very good at students' critical thinking skills. In addition, there are also average results of pretest and posttest scores that have been presented in the form of diagrams as follows:



Graph 2. Critical Thinking Ability of Learners

Graph 2 shows that the average posttest increased very high compared to the average pretest. The average pretest result was 32% whereas the average posttest result was 92%. Hypothesis testing of the posttest results by conducting a paired sample t-test obtained a result of 0.000, namely 0.000 <0.05. These results conclude that (H0) is rejected and (H1) is accepted. From the posttest data of class IV Utsman, the critical thinking ability test scores were obtained which showed very significant results, with the average student posttest results 60% higher than the pretest average. The student's posttest was at 92%, the percentage was classified as very high which indicates that students' critical thinking skills are very high. When conducting research, researchers found that there were students who understood the learning material well when given an inquiry teaching model.

DISCUSSION

Based on the results of research conducted by researchers, it was stated that there was an increase in students' critical thinking skills using the inquiry learning model. This is explained in each critical thinking indicator used by the researchers. This study identified several indicators of critical thinking, such as interpretation, analysis, inference, evaluation, explanation, and self-regulation. Each indicator is explained in the diagram provided. In the diagram presented, there is an indicator whose results show improvement, namely the evaluation indicator, meaning that students are able to evaluate the essay test instruments well. However, the analysis indicator shows unsatisfactory results because students did not analyze the essay questions in that indicator sufficiently. When this inquiry model was first introduced in the classroom, the teacher presented a problem to the students.When this inquiry model began in class, the teacher initially gave the students a problem. The problem given by the teacher was a picture of the regulations in the area around the Pari temple,located in Sidoarjo. This is what makes this research unique. This research raises the theme of history around the Pari Temple in Sidoarjo, which makes students aware that there is cultural heritage around them that must be preserved and protected. This temple is a Hindu-Buddhist temple located not far from the students' school. Through the pictures provided by the teacher, students identify problems related to the material. Then, the teacher, as a facilitator, helps students by asking questions about the problems faced by students. When the teacher successfully asks questions, students are able to formulate problems or questions. Formulating questions or problems is an important activity when conducting inquiry activities. This is because inquiry-based learning emphasizes the process of searching and discovering. The role of students in this learning process is to discover and search. Student participation in the learning process that takes place in the classroom at that time is to improve the thinking process of students who were initially passive to become active.

The inquiry learning model is a learning model that has an important goal to increase the active role of students during the learning process so that students can independently find knowledge, find an answer and have a learning experience through the concepts of the problems that have been proposed through the syntax that already exists in this inquiry model (Hamid, Muhammad Yunus, Ifa Safira, Satria, & Tismi Dipalaya, 2023; Parjinem, 2021). From the syntax that exists in the inquiry model can make students able to actively find the concepts they are learning and train students to find a solution or way of solving problems that can improve the quality of students' thinking skills (Majid, 2014). The results of other studies that have similarities with this study also reveal that when applying the inquiry learning model during learning can develop their critical thinking skills through investigation activities and exchanging ideas with classmates (Ismail, 2020; Widiya & Radia, 2023).

When this inquiry model begins in the classroom at first the teacher gives a problem to students. The problem given by the teacher is a picture about the regulations in the area around Pari temple, which is located in Sidoarjo. This temple is a Hindu Buddhist heritage temple located not far from the students' school area. Through the pictures that have been given by the teacher, students identify problems related to the material. Then the teacher as a facilitator helps students by providing triggering questions about the problems faced by students. When the teacher succeeds in providing a sparking question then the learners succeed in formulating a problem or question. Formulating these questions or problems is an important activity when conducting inquiry activities. This is supported by other research which reveals that inquiry learning emphasizes the process of searching and finding (Dhamayanti, 2022). The role of learners in this learning is to discover and search. The active participation of learners in learning activities changes the thinking process of learners who initially use passive thinking into logical and independent thinking (Dada, Laseinde, & Tartibu, 2023; Ramdani, Jufri, Gunawan, Fahrurrozi, & Yustiqvar, 2021).

Another study revealed a similar opinion that the inquiry learning model can improve student learning activities, but this study did not focus on IPAS learning in elementary schools and revealed student learning activities rather than focusing on students' critical thinking skills (Husni, 2020; Imamah, 2021). This is also in line with other studies that suggest that the inquiry learning process is a form of active learning that can improve student achievement and learning outcomes. However, this study does not focus on how to explore students' critical thinking skills (Imamah, 2021). Another study revealed that the inquiry model teaches students to think critically, but this study used qualitative research methods (Samadun, Setiani, Dwikoranto, & Marsini, 2023). In addition, several other studies have also revealed that the use of problems raised from real issues faced by students has a significant influence on improving the critical thinking skills of elementary school students because inquiry is a learning model based on analyzing problems that students actually face in the real world so that students can solve the problems they encounter (Haryanti et al., 2022). In the learning process, students are not only as listeners but students are required to be active in seeking information and finding their own knowledge concepts, so that they can make students develop more systematic, logical, and critical thinking skills (Pangestu, Lestari, & Destini, 2024). In the learning process, inquiry is also able to optimize students' critical thinking skills compared to using the lecture model (Alawiah, 2024). This inquiry model is also able to organize students, evaluate the material needs needed by students, and conclude information obtained by students during learning activities (Lailiah, Wardani, Sudarmin, & Edi, 2021).

The success of the inquiry model is seen from several aspects, including when students are required to seek information or knowledge on their own which makes students more active than when students listen to the teacher's explanation in conveying learning material in class and the

teacher's job when doing this inquiry model is also not as the center of learning but the teacher is only a facilitator (Chandra, Degeng, Kuswandi, & Setyosari, 2020). During the learning process, the teacher is only in charge of providing instructions so that students can explore the right information. The psychological principle also says that the greater the involvement of students in learning activities, the greater the understanding of students about the material (Hartono, 2022). The increased thinking ability of students after the inquiry model shows that the syntax stages in learning are able to help students to accommodate and improve their abilities.

CONCLUSION

Based on the results of research, data analysis, and discussion in the previous chapter, it shows that there is an influence of the inquiry learning model on students' critical thinking skills. In the presentation of data that has been explained by researchers, it shows that each of the indicators of critical thinking skills can make students improve their ability to think, especially critical thinking skills. The data analysis technique using the paired sample t-test shows a calculation of 0.000 <0.05, which means that there is an influence of the inquiry model on students' critical thinking skills. The critical thinking skills of students who have been given are related to the material of civilized society, especially in the sub-chapter of written and unwritten regulations. Thus, the inquiry learning model can be applied at SD Muhammadiyah 11 Randegan to improve students' critical thinking skills, especially in IPAS learning. The results show that involving learners actively during the learning process can develop their thinking skills. This inquiry learning enhances active participation in problem solving, data analysis, and conclusion drawing so that learners can deepen their knowledge.

This inquiry learning model is expected to be a benefit and new knowledge that can be applied by educators. Therefore, the researcher suggests that future researchers can use this research as a basis for development by applying the inquiry model to the same subjects and materials so that more educators are motivated to improve students' critical thinking skills and can encourage active students in the process of seeking information. However, it is hoped that further research will choose more samples to increase the validity of the research. The disadvantage in this study is that researchers are lacking in conducting classroom conditioning in students so it is hoped that future researchers can be good at classroom conditioning.

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