

## Implementation of Guided Inquiry Learning Model In Improving Critical Thinking Abilities of Grade VI Students

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### Abstract

*This study aims to Implement the Guided Inquiry Learning Model in Improving Critical Thinking Skills of Grade VI Students at UPTD Sd Negeri 125138 Pematangsiantar. This research is a qualitative research. Based on the results of research that has been done through observation, interviews, and documentation, it can be concluded that the implementation of the guided inquiry learning model in the subject of PPKn, especially on the material "Norms, Rights, and Obligations", has a positive influence on the development of critical thinking skills of grade VI students of UPTD SD Negeri 125138 Pematangsiantar. First, from the aspect of learning implementation, the guided inquiry model is able to present a more active and participatory learning atmosphere. Second, from the results of the analysis of critical thinking skills, it is known that the majority of students (61.3%) have demonstrated good critical thinking skills. Students in this category have been able to identify problems, convey arguments logically, and draw conclusions appropriately. Third, the results of the evaluation based on the CIPP model show that the context of the application of the guided inquiry model is very relevant to the needs of students in practicing higher-order thinking skills. Thus, it can be concluded that the guided inquiry learning model is effective for use in PPKn learning to develop students' critical thinking skills, but supporting strategies are needed to address differences in student characteristics and levels of participation.*

*Keywords: Learning Model, Guided Inquiry, Critical Thinking Skills*

## INTRODUCTION

Technological advances in the 21st century have impacted various aspects of life, particularly education. Indonesian education has undergone changes in line with the development of information technology, such as the internet and e-learning. These have become new educational tools that allow individuals to learn from anywhere, no longer requiring direct teacher contact as in the past. Indonesia has now implemented 21st-century learning, beginning in 200. (Barus & Sani, 2018). The concept of 21st-century learning was first put forward by Bernie Trilling and Charles Fadel in their book entitled "21st Century Skills: Learning for Life in Our Times". In the book, they formulated concepts and skills that are considered important for students in the digital era, namely, the ability to adapt, think critically, be creative, and use technology for learning and communication. The Father of National Education "Ki Hajar Dewantara" is a figure who contributed to the development

of 21st-century learning in Indonesia who has thoughts relevant to the principles of 21st-century learning, such as child-centered education, future-oriented education and education that encourages independence and creativity of students. (Putria et al., 2019) .

Higher-order thinking skills consist of various aspects, one of which is critical thinking. Critical thinking is a process that aims to draw conclusions about self-confidence and belief in what we will do. If teachers and students realize the importance of this, then the guarantee of high critical thinking skills is within reach. This critical thinking ability can be trained in any school through an innovative, creative, and fun learning process (Sundari & Indrayani, 2019) . Furthermore, according to Peter, critical thinking skills also enable students to relate effectively to the social environment, knowledge, and practical problems. In other words, students who are able to think critically can solve problems effectively. In line with this, according to Afriansyah, critical thinking skills are a person's ability to think at a higher level to solve a problem rationally. This statement is in line with the statement that says critical thinking is a person's ability to think at a higher level, especially to solve a problem, so that later the person is able to make an appropriate and logical decision in resolving or solving the problem.

Based on this statement, it can be seen that critical thinking skills are high-level thinking skills in which a person reasons, analyzes, and solves existing problems effectively and rationally and is classified as a higher-level thinking skill. However, this does not correspond to the reality experienced by students at the UPTD SD Negeri 125138 Pematangsiantar in grade VI. The government's efforts to improve the curriculum have not been accompanied by an increase in student learning achievement according to expectations. The government's efforts must be in line with what is implemented by schools, especially teachers who play a crucial role and are more responsible for the results obtained by students. (Kurniawan, 2013) . The low ability of students to achieve KKM is caused by several things, including learning that is still teacher-centered, student activities during learning are still restrained and controlled by teachers so that students tend not to have the opportunity to develop their potential, teachers are less innovative towards students at the beginning of learning and students tend to think that the purpose of learning is only to answer questions during tests. Therefore, the sixth grade teacher at SD N 125138 is thinking about changing or improving teaching methods so that learning can be carried out effectively.

Based on the results of the conversation conducted by the researcher with the homeroom teacher of grade V at the UPTD of SD Negeri 125138 Pematangsiantar in the even semester of the 2024/2025 Academic Year regarding improving critical thinking skills in the PPKn subject of grade V students totaling 30 students who will move up to grade VI is still relatively low, the KKM value determined for the PPKn subject is 75.

One of the efforts that can be made to overcome this problem is by implementing innovative learning models, namely learning that uses new and creative ways to actively involve students in the learning process, encourage critical thinking, and help students

develop thinking skills and problem-solving abilities. (Wulandari et al., 2022) . Therefore, one of the innovative learning models that can be used is the guided inquiry learning model. One of the innovative learning models that can be used is the guided inquiry learning model. The guided inquiry learning model is a learning model that positions students as learning subjects, meaning that each student is encouraged to be actively involved in learning activities (Ulfa et al., 2022) . The guided inquiry model is a learning model that trains students to learn to find problems, collect, organize, and solve problems. The guided inquiry model provides students with the opportunity to explore all their abilities in uncovering or answering problems and discussing the topics raised. The guided inquiry model emphasizes maximum student activity to search and discover (Zahidah et al., 2020) . The guided inquiry model must meet four criteria: clarity, appropriateness, accuracy, and complexity. Students are truly positioned as learning subjects. (Liwa Ilhamdi et al., 2020) . The role of the teacher in learning with the guided inquiry model is as a guide and facilitator. The explanation of the guided inquiry model is certainly the reason why this research was conducted. Sutarningsih (Hayati, Loka, & Anwar, 2019) explains that "the guided inquiry learning model aims to help students develop intellectual skills such as asking questions and seeking answers." Bahri (2016) states that the guided inquiry model provides opportunities for students to actively learn in formulating problems, analyzing results, and drawing conclusions. The guided inquiry learning model is student-centered.

Based on several statements related to the guided inquiry model, it can be seen that the guided inquiry model is an appropriate learning model to overcome the phenomenon of the lack of critical thinking skills that has been explained in the description of the problem. Therefore , the researcher will conduct a study entitled "Implementation of the Guided Inquiry Learning Model in Improving Critical Thinking Skills of Grade VI Students at UPTD SD Negeri 125138 Pematangsiantar".

## **METHOD**

This research is a qualitative study. Qualitative research aims to understand phenomena experienced by research subjects, such as behavior, perception, motivation, and so on, by describing them verbally and in language, within a specific, natural context, utilizing various scientific methods. Therefore, this research uses a qualitative descriptive approach, namely an approach oriented toward describing natural phenomena or symptoms. (Asiah et al., 2019) .

The researcher chose the qualitative research type because the research was conducted to understand and collect data from phenomena related to "Implementation of Guided Inquiry Learning Model in Improving Critical Thinking Skills of Grade VI Elementary School Students" which were experienced by the research subjects directly, then described and formed into a narrative form in line with the qualitative descriptive approach. (Solihin et al., 2018) . The research subjects are a group of individuals who are the focus of the research, where the research subjects were selected using purposive sampling techniques, namely a technique for sampling data sources with certain considerations. This

research is qualitative in nature, so it requires research subjects. (Dewi Muliani & Citra Wibawa, 2019) . In this study, the subjects in question were informants consisting of Grade VI Teachers and Grade VI Students of SD N 125138.

This research was conducted at the UPTD SD N 125138 Pematangsiantar, located on Jl. Medan Simpang Kerang, Sumber Jaya, Siantar Martoba District, Pematangsiantar City, North Sumatra Province. Research Period This research was conducted from July to September 2025.

Data sources in qualitative research are the words and actions of the people involved in the research, documents, and field notes. These types of data sources are also known as primary data and secondary data. Words and actions are primary data, generated through in-depth interviews with class teachers about the guided inquiry learning model and the condition of students' critical thinking skills, observations of the implementation of learning in grade VI, and the researcher's field notes. Meanwhile, secondary data is supporting data obtained from indirect sources such as literature: teacher notes and reports on student development, lesson plans, articles, journals, and photographs that can be used to describe the situation or conditions during the research. (Harjilah et al., 2019) .

Data collection techniques are the most important step in research, as the primary goal of research is to obtain data. Without understanding data collection techniques, researchers will not obtain data that meets established standards and data collection methods. In this study, data collection techniques were conducted through observation, interviews, and documentation. (Waleulu & Muharram, 2019) .

Observation is the activity of observing something to determine the condition of an environment. Nasution, as cited in Sugiyono, states that observation is the foundation of all science. Observation consists of participatory observation, overt or covert observation, and unstructured observation. In this study, the researcher will conduct direct observation by observing learning activities in grade VI related to the implementation of the guided inquiry learning model in PPKn (National Education and Culture) learning.

It is a form of communication between two people, or communication that involves one person seeking information from another by asking several questions, based on a specific goal. The interviews in this study will be conducted by the researcher as interviewer with the sixth-grade teacher as the source to obtain supporting data in accordance with previously established guidelines.

It is a record of past events, which can be in the form of writing, pictures, voice recordings, and others that are used to complement the interview data. Documentation in this study is in the form of photos of learning activities, lesson plans, and teacher reflection notes as evidence during the implementation of the research to help understand the phenomena that occurred in class VI of SD N 125138 Pematangsiantar. Research instruments are tools or devices used by researchers to collect data in a study that allows researchers to obtain the information needed to answer the problem formulation or achieve research objectives.

In qualitative research, data analysis is conducted from the beginning of the data collection process to the final stages of the study. Data obtained from interviews, observations, and documentation are analyzed using the interactive analysis model by Miles & Huberman, which includes three main stages: data reduction, data presentation, and conclusion drawing. To ensure a high level of validity, this study employed triangulation techniques.

Triangulation is conducted to test the credibility of data by comparing information from various sources, techniques, and time periods. This study utilized source and technique triangulation. Source triangulation was conducted by comparing information obtained from classroom teachers, lesson planning documents, and observations of the teaching and learning process. Meanwhile, technique triangulation was conducted by combining data from interviews, direct classroom observations, and documents in the form of lesson plans/teaching modules and student worksheets used by teachers. (Azizah & Rosdiana, 2022) . With triangulation, collected data can be verified and its accuracy ensured. For example, a teacher's statement regarding the use of provocative questions in learning is then confirmed through observations and reinforced by module documents that include these questions. (Dewi Muliani & Citra Wibawa, 2019) . Similarly, the teacher's explanation of the steps for implementing the guided inquiry model was compared with classroom observation notes and student work results in the Student Worksheet (LKPD). Through this triangulation process, researchers not only obtained valid data but were also able to see the relationship between the findings as a whole. Therefore, the results of the analysis presented in Chapter IV are a complete and reliable picture of the implementation of the guided inquiry learning model in improving the critical thinking skills of sixth grade elementary school students on the material of Norms, Rights, and Obligations.

## **RESULTS AND DISCUSSION**

### **Research result**

#### **Overview of Research Location**

UPTD SD N 125138 is an elementary school (SD) that uses the latest curriculum in its learning implementation, namely the Independent Learning Currilum. This school is located on Jl. Medan Simpang Kerang, Sumber Jaya Village, Siantar Martoba District, North Sumatra. This school is led by Mr. Asri Robert P. Sinaga, S.Pd., SD. The accreditation of this school is Good or "B". The number of teachers and educational staff at UPTD SD N 125138 Pematangsiantar is 15 people consisting of 1 Principal, 10 class teachers, 2 religious teachers, 1 sports teacher and 1 operator, and a total of 238 students. (Purwandari & Yusro, 2018) .

The research subjects, "Grade VI," comprise 31 students from diverse religious, ethnic, and cultural backgrounds. Grade VI utilizes the latest independent learning curriculum, led by the homeroom teacher, Mr. Alfres Ambarita, S.Pd.



**Figure 1. Learning**

con class The main obstacle in implementing guided inquiry is time constraints, as the investigation process requires a longer duration. Furthermore, differences in student abilities mean that not everyone can think critically well, resulting in uneven learning outcomes. Therefore, the solution teachers adopt is to provide clear time limits so that students can be more focused and motivated to complete the investigation on time. With time management, the learning process becomes more efficient without compromising the essence of inquiry.

#### **Analysis of Critical Thinking Skills of Grade VI Students**

Based on the observations and interviews conducted by the researcher in the previous discussion, which indicated obstacles and weaknesses in the implementation of the guided inquiry learning model, this is one indication that some students are still lacking in the context of critical thinking. During the observation, the researcher also had the opportunity to discuss with the class teacher regarding several students who were said to be lacking in critical thinking patterns in the material being studied "Norms, Rights, and Obligations." (Wartini, 2021) .

To facilitate understanding in the analysis of critical thinking skills of grade VI students, through conversations between researchers and class teachers during the observation, the following will present notes about students who are considered to have used critical thinking patterns in learning with the following notes: Good (B), Good Enough (CB) and Sufficient (C).

A B mark is given to students who have demonstrated critical thinking actions or patterns according to the existing indicators, and CB and C marks are given to students who have not demonstrated sufficient indicators of critical thinking patterns in the learning carried out. (Nahak & Bulu, 2020) .

**Table 1. Data on Critical Thinking Skills of Grade VI Students at UPTD SD N 125138 Pematangsiantar**

No	Initials	Gender	Activity Notes		
			B	CB	C
1	US	P			▪
2	AY	L			▪
3	AD	L		▪	
4	AH	P	▪		
5	BP	L		▪	
6	FHS	L		▪	
7	FFS	L		▪	
8	GS	P	▪		
9	IFA	L		▪	
10	IBM	L	▪		
11	ITD	P		▪	
12	JPH	L	▪		
13	KAL	L	▪		
14	KM	P		▪	
15	LSZ	L	▪		
16	MIA	L	▪		
17	MYN	P	▪		
18	NI	P	▪		
19	NAP	L	▪		
20	NAZ	L	▪		
21	PNH	L	▪		
22	PCT	P	▪		
23	QH	P			▪
24	RH	P			▪
25	SS	L	▪		
26	SWS	L	▪		
27	SA	P	▪		
28	Kindergarte n	P		▪	
29	WJU	P	▪		
30	AL	L	▪		
31	JN	L	▪		
			19	8	4

## **Evaluation of Guided Inquiry Learning Model**

### **Context**

The results of the study indicate that the application of the guided inquiry learning model is highly relevant to the needs of sixth-grade elementary school students, particularly in improving critical thinking skills in the Civics subject with the material of Norms, Rights, and Obligations. From the context of the school and classroom studied, teachers face the challenge of how to make students active and able to analyze problems close to their lives. By using real case studies (for example, mutual cooperation in RT 05 and Mr. Adi's family dilemma), students become easier to understand the meaning of norms, rights, and obligations contextually. This is in line with the objectives of Civics learning in elementary schools which emphasize the formation of critical, responsible, and participatory attitudes as young citizens.

### **Input**

In terms of planning, teachers have prepared learning tools in the form of lesson plans (RPP), student worksheets (LKPD), and evaluation instruments that support the implementation of guided inquiry. The LKPD provided contains provocative questions and case studies to encourage students to identify rights, obligations, and values in everyday life. Other input includes forming groups based on types of norms (politeness, morality, religion, and law), which has been proven to focus students on critical thinking from different perspectives. The findings indicate that teacher preparation is good, although it still needs strengthening in terms of question variation and guidance strategies to ensure all students actively participate.

### **Process**

The guided inquiry learning process proceeds through five stages: group formation, question identification, problem formulation, information gathering, and conclusion drawing. The results showed that during the question identification and problem formulation stages, students demonstrated critical thinking skills by identifying conflicts between rights and obligations in the case study. During the information gathering stage, students actively sought alternative solutions, such as Mr. Adi joining the community service program first, asking for permission from residents, or changing the obligation to a later time. The group discussion process encouraged students to share arguments, consider others' opinions, and draw logical conclusions. However, it was also found that some students remained passive and simply followed the dominance of more active friends, so the teacher's role in facilitating equal participation is crucial.

### **Product**

From the final learning outcomes, it was found that the majority of students experienced an increase in critical thinking skills. This was evident in their ability to conclude a fair solution by balancing the rights of Mr. Adi's family and his social obligations as a neighborhood association (RT) resident. Evaluation data showed that 61.3% of students



were in the Good category, 25.8% in the Fair category, and 12.9% in the Sufficient category in the critical thinking indicator. These findings indicate that the guided inquiry model is effective in helping students understand the concepts of norms, rights, and obligations through critical thinking processes. However, the results also indicate the need for follow-up in the form of strengthening guidance for students who are still in the Sufficient category so that their critical thinking skills can improve evenly.

### **Discussion of Research Findings**

Based on the findings of the study on the critical thinking skills of sixth grade students in PPKn learning with the material "Norms, Rights, and Obligations," it was found that the majority of students have demonstrated good critical thinking skills, although there are still students who are in the fairly good and sufficient categories. This data indicates that the application of the guided inquiry model is able to encourage students to think more analytically, reflectively, and systematically, but still leaves challenges in optimizing the abilities of all students. Therefore, to gain a deeper understanding, the findings need to be analyzed further by linking them to relevant theories and learning evaluation frameworks. The following analysis aims to ensure that the data obtained does not only stop at simple statistical numbers, but can be interpreted comprehensively in the context of developing critical thinking skills through the guided inquiry learning model.

### **Implementation of the Guided Inquiry Learning Model in Improving Critical Thinking Skills of Grade VI Students of UPTD SD N 125138 Pematangsiantar**

The results of the study indicate that the implementation of the guided inquiry model in PPKn learning for sixth graders aligns with the Information Search Process (ISP) theory developed by Carol Kuhlthau. This theory emphasizes that students' information-seeking process is dynamic, with stages in learning planning ranging from initiation (problem orientation), selection, exploration, formulation, collection, to presentation. In the context of this study, students in the Good category were able to follow the entire process. They not only actively asked questions and expressed their opinions, but were also able to compare various pieces of information, choose alternative solutions, and draw logical conclusions. This indicates that they successfully completed the formulation and presentation stages, where information is not merely collected but also processed into new knowledge.

Students in the Fairly Good category, even though they understand the problem and have begun exploring information, often stall at the exploration stage. Doubt, lack of confidence, and difficulty organizing information prevent them from consistently reaching the formulation stage. Meanwhile, students in the Fair category tend to be passive, simply following the teacher's directions and copying information rather than analyzing it. They tend to stop at the initiation and selection stages, without progressing to higher levels. (Hapsari, 2013). This finding strengthens Kuhlthau's view that individual differences, both in terms of motivation, self-confidence, and learning strategies, greatly influence the extent to which students can pass through the inquiry stages effectively.

### **Indicators of Critical Thinking Skills of Grade VI Students**

Further analysis using Suwarma's critical thinking skills indicators reveals a variation in achievement among students. Students in the Good category have mastered nearly all indicators, from identifying problems, providing logical reasoning, evaluating arguments, and drawing sound conclusions. They are able to relate the material on "Norms, Rights, and Obligations" to real-life situations, such as when discussing the obligation to maintain environmental cleanliness or the right to express opinions politely. (Siswati et al., 2020) . The ability to evaluate is also evident when students can respond to their peers' arguments by adding new reasons or providing different examples (Wibawa & Muttaqin, 2022) .

In the Fairly Good category, students only demonstrate partial indicators. They can identify problems and provide simple reasoning, but are often inconsistent in drawing conclusions. (Mangunsong et al., 2019) . For example, they can cite examples of norm violations but struggle to explain the consequences in more depth or relate them to Pancasila values. They also have poor evaluation of their peers' arguments, often accepting them at face value without offering criticism or alternative solutions.

Meanwhile, in the Sufficient category, students' critical thinking skills are still limited. They tend to provide short answers without logical reasoning, repeat information from the teacher, and are less able to evaluate or make independent decisions. This aligns with field findings that some students still rely on teacher direction and are not yet accustomed to asking critical questions. Thus, Suwarma's indicators help clarify that differences in student categories reflect real variations in critical thinking achievement, which are influenced by learning readiness, prior experience, and courage to express opinions. (Rizky & Sritresna, 2021) .

### **Evaluation of Guided Inquiry Learning Model**

The CIPP (Context, Input, Process, Product) evaluation approach by Daniel Stufflebeam is an important framework for assessing the effectiveness of guided inquiry implementation in this study.

In terms of context, the learning proved to be appropriate for the needs of sixth-grade students. The material on "Norms, Rights, and Obligations" serves as a relevant tool for honing critical thinking skills, as it relates directly to everyday life. For example, case studies on the obligation to maintain cleanliness or the right to fair treatment make it easier for students to connect abstract concepts with real-life experiences. (Sismayani et al., 2019) .

In terms of input, teachers have prepared learning materials quite well, including lesson plans, modules, student worksheets, and evaluation instruments. This supports the smooth implementation of the model, although limited digital resources and differences in student readiness remain obstacles.

From a process perspective, learning follows an inquiry process, from problem orientation, hypothesis formulation, data collection, to drawing conclusions. However, time constraints and varying student engagement mean that not all stages run optimally. Some

students require additional guidance to become more confident in expressing their opinions.

From a product perspective, the evaluation results showed that 61.3% of students were in the Good category, 25.8% in the Fair category, and 12.9% in the Sufficient category. This achievement confirms that the guided inquiry model is effective in improving critical thinking skills, although its implementation still faces technical and pedagogical challenges. (Lestari & Muchlis, 2021) .

Overall, the findings of this study reinforce Kuhlthau's theory that the inquiry process is gradual and not always linear; some students confidently advance to the final stage, others remain stuck in exploration, and still others stop at the initial stage. This aligns with differences in mastery of critical thinking indicators according to Suwarma. (Tillawari, 2020) , which shows variations in the ability to identify problems, provide reasons, evaluate arguments, and draw conclusions. Furthermore, the evaluation using the CIPP framework showed that contextually and procedurally, the guided inquiry model was relevant and implemented quite well, producing positive outcomes in the form of improved critical thinking skills for the majority of students. However, there were still obstacles in the process aspect, particularly related to time constraints, heterogeneity of student abilities, and the need for intensive guidance for students who were still in the Sufficient category. (Sabarna et al., 2023) .

Thus, it can be concluded that the guided inquiry model is an effective and relevant learning strategy for developing critical thinking skills in elementary school students, particularly in Civics. However, this effectiveness is only optimal if teachers are able to manage time well, encourage collaboration among students, and provide more personalized guidance for students who need it.

## **CONCLUSION**

Based on the results of research conducted through observation, interviews, and documentation, it can be concluded that the application of the guided inquiry learning model in the PPKn subject, especially in the material "Norms, Rights, and Obligations", has a positive influence on the development of critical thinking skills of grade VI students of UPTD SD Negeri 125138 Pematangsiantar.

First, from a learning implementation perspective, the guided inquiry model can create a more active and participatory learning environment. The teacher acts as a facilitator, providing direction through stimulating questions and guided discussions, while students are encouraged to explore information, ask questions, and express opinions based on logical reasoning.

Second, the analysis of critical thinking skills revealed that the majority of students (61.3%) demonstrated good critical thinking skills. Students in this category were able to identify problems, present arguments logically, and draw accurate conclusions. However, 25.8% of students were in the "fair" category, and 12.9% were in the "sufficient" category. These two categories indicate that some students are inconsistent in demonstrating critical

thinking skills, either due to lack of courage, motivation, or limitations in expressing reasoning logically.

Third, the evaluation results based on the CIPP model indicate that the context of the guided inquiry model's application is highly relevant to students' needs in practicing higher-order thinking skills. The teacher's input was quite good, although time constraints and varying student characteristics were obstacles. The learning process proceeded according to the inquiry stages, although not all students were actively involved equally. The resulting products showed an increase in critical thinking skills, although not yet fully distributed across all students.

Thus, it can be concluded that the guided inquiry learning model is effective for use in PPKn learning to develop students' critical thinking skills, but supporting strategies are needed to address differences in student characteristics and levels of participation

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