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SOCRATIC METHOD IN LEARNING

(The Socratic Method Develops Critical Thinking Skills)

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Abstract

Keywords: *Critical Thinking; Learning; Socratic Method*

The phenomenon of weak critical thinking skills of students requires concrete solutions from all parties involved in education, especially those who carry out the process of direct interaction with students in the classroom, in this case the teacher. Teachers must master learning instruments, one of which is a learning method that can be used as a tool to help students develop critical thinking skills. One of the methods that the author discusses in this article is the Socratic Method. This method is assumed as an alternative learning method that can be used to develop students' critical thinking skills.

There are 3 main topics described in this article, namely the first discussion of the Socratic Method which includes the understanding and implementation of the Socratic method in learning, the second is ***the Ability to Think Critically which discusses the understanding and characteristics of critical thinking***, the third is ***the relationship between the Socratic method and the ability to think critically***.

INTRODUCTION

Education plays a very important role in the process of improving the quality of human resources. The National Education System Law Number 20 of 2003 clearly affirms that the purpose of National Education is to develop the potential of students to become human beings of faith and fear of God Almighty, have noble character, healthy, knowledgeable, capable, creative, independent and become democratic and responsible citizens.

The ongoing educational process certainly requires learning methods to achieve the expected goals. Learning methods are instructional parts and strategies that serve as a way to present, elaborate, exemplify and give training to learners to achieve certain goals. In line with what was stated by Iskandar Wasid and Sunendar (2011) that the learning method is a systematic way of working to facilitate the implementation of various learning activities to achieve the desired or determined goals. Various kinds of learning methods are used by teachers so that the skills of students develop well, where one of the abilities of students that must be developed is the ability to think critically.

Critical thinking is part of higher-order thinking skills, skills that are very important to be developed in the learning process. This is an effort to prepare superior human resources who are ready to compete in the midst of global competition. Critical thinking skills are one of the competencies of HOTS-oriented learning that needs to be developed in students as prospective world communities. Studies conducted by TIMSS (*The Trends in International Mathematics and Science Study*) 2011 and PISA (Programme for International Student Assessment) 2012 (OECD: 2014) which show the weak ability of students in Indonesia to reason which is an indication that the critical thinking ability of students in Indonesia is still in the weak category.

The phenomenon of weak critical thinking ability of students requires concrete solutions from all parties involved in education, especially those who carry out the process of direct interaction with students in the classroom, in this case the teacher. Teachers must master learning instruments, one of which is a learning method that can be used as a tool to help students develop critical thinking skills. One of the methods that the author discusses in this article is the Socratic Method. This method is assumed as an alternative learning method that can be used to develop students' critical thinking skills.

Based on previous research related to the socratic method, it shows positive research results on the socratic learning method. Research conducted by Suprpto and Dwikoranto (2011) apply the socratic method in learning the History of Physics. Research shows that the socratic method is very well applied in the development of learning materials and teaching methods that have an impact on

learning interest and build a fairly active interaction between teachers and students. The research is in line with Khairuntika's research (2016) who apply it to Mathematics Learning states that the most important indicator of the socratic model is through the variety of questions in class on learning topics that can trigger students' thinking and critical power. The application of socratic questions is also very helpful in identifying student responses in the classroom so that students are super active, moderate, and not active at all.

Furthermore, research conducted by Susiani and Suranata (2017), Pertiwi (2017), and Novianti, *Et. Al* (2023) Shows that the socratic method can improve the critical power and dialectic skills of learners and educators as reflected in the ability to analyze, reason, and respond to discussion issues in the classroom. In addition, the socratic method is also applied to the development of teacher quality such as research by Santosa and Prasetiawan (2021) namely conducting prophetic guidance training on Guidance and Counseling Teachers (GBK) shows that a teaching staff also needs to be fostered and understand the socratic method so that the selection of learning materials is adjusted to the socratic method.

Based on this literature, it indicates that the socratic method is one of the learning methods that can support the development and growth of critical thinking capabilities in students. The discussion in the scientific article made by the author, aims to interpret the socratic method as a method in learning where it is considered that the socratic method can develop critical thinking skills.

RESEARCH METHODS

This article uses a literature study, where the author tries to conduct research by tracing the sources of writing that have been made before. According to M.Nazir in his book entitled Research Methods suggests that literature study or literature study is a data collection technique by conducting a review study of books, literature, notes, and reports that have something to do with the problem to be solved. The steps taken in this literature study are searching, reading and trying to understand papers that are relevant to the Socratic method and *critichal* thinking, choosing clear data sources related to the discussion, identifying in depth, making a research framework and continuing to compile in the form of structured writing related to the Socratic learning method in developing critical thinking skills.

DISCUSSION

A. Sokratik Methods

1. Understanding the Socratic Method

The naming of the Socratic method is taken from the name of Socrates who was a Greek Philosopher and was one of the thinkers of *anthropocentrism* who lived during the Classical Greek period (Suaedi: 2016). The Socratic method is also called the dialectical method or the midwifery method, which is a method used by Socrates to express universal truths to individuals through conversation and dialogue. The purpose of this method is to find out the contents of the human mind or soul (Waris: 2014). Socrates gave an understanding of philosophy by giving others awareness of something he had understood. The assumption used by Socrates in his method is that humans have innate knowledge (Ibrahim, Duski, 2017). Philosophically it is also called the midwifery method because a midwife is not the one who gives birth to a baby but only helps someone who will give birth so that it can successfully give birth to a child. Just as Socrates only interceded for someone to seek the ultimate truth, this is also one of the reasons that in some literature Socrates refuses to claim to be a teacher.

A literature written by Brickhouse and Smith (2010) entitled *Socratic Teaching and Socratic* suggests that the Socratic method does not only awaken the way one understands and studies a science. However, Socrates illustrates that one needs to have the self-awareness that one is not one who is knowledgeable about all questions and teaches that everything needs to be thought about radically. Learners and teachers need to have high curiosity, respect the interlocutor, be stupid so that the interlocutor has many opportunities to think and argue during discussions. Later, Socrates also taught that in accepting knowledge or information not only on one source, but more than several sources to validate and draw one conclusion holistically. The purpose of Socratic teaching is to be cooperative and collaborative in the teaching and learning process.

The dialectical process carried out in the Socratic method is used to reveal truth in search of objective truth. Socrates used dialogue in the process the aim was to produce conclusions to the questions asked, questions asked to obtain opinions. The answer to the first question is used as a hypothesis, while subsequent answers are used as logical consequences.

Socratic questions that are part of the Socratic method are a teaching method that focuses on finding answers from students by asking questions as Socrates did. Socrates believed that "the asking of directed questions will encourage students to consider various ideas at hand and determine which ideas are most correct". A teacher must be able to ask students questions in order to provoke them to reach the highest level of understanding. With the socratic method a student can recognize contradictions, conduct critical analysis, and reconstruct their own ideas so that they are more perfect. The key to distinguishing socratic questions from ordinary questions is that they are systematic, measurable, in-depth and usually focus on fundamental concepts,

principles, theories and problems.

The Socratic method is a learning method with a teacher-led discussion process to make students / students find a conclusion. Jones, Bagford and Walen (Yunarti, 2011) define the Socratic method in learning as a teacher-led discussion process to make students question the validity of their reasoning or to reach a conclusion. The Socratic method is defined as a method in which there is a dialogue between teachers and students that contains critical questions with the aim of building a critical thinking pattern, leading to new discoveries, making students want to know further and understand more deeply, as well as testing the validity of students' beliefs and making correct conclusions about an object.

There are at least two objectives if a teacher uses the Socratic method in the learning process, namely 1. To deeply investigate students' thinking, to help students begin to discern what they know and help them develop intellectual awareness in following the process, 2. Cultivate students' ability to ask questions, socratic questions help students master them so that they can use this concept in everyday life (in analyzing the thoughts of themselves or others).

2. Socratic Method in Learning

The Socratic method is done by asking questions and answers to guide and deepen the level of understanding related to the material taught so that students get their own thoughts from the results of resolved cognitive conflicts. Yunarti (2011) states that the Socratic Method is a method that contains teacher-led dialogue because the teacher knows the learning objectives, is constructive for students and contains inductive questions ranging from simple to complex questions to test the validity of students' beliefs in an object.

The Socratic method is not just asking questions without meaning but there is a goal to be achieved in the process of asking. There are six procedural stages in the Socratic method that can be implemented in learning according to Qosyim (2007), which are as follows:

- a. Determine the topic or language subject to be learned
- b. Develop two or three frequently asked questions and start a Q&A implementation
- c. See or observe whether in students there is a possibility of incompatibility, opposition, or cognitive conflict
- d. Asking again about things that cause cognitive conflict
- e. Continue the question and answer so that students can resolve conflicts until they move to a deeper level of analysis and conclude the results of the question and answer by pointing out important things that students should get.

There are several strategies that can be applied if the Socratic method is implemented in the learning process:

- a) Construct questions before learning begins
- b) State questions clearly and precisely
- c) Give a waiting time
- d) Keeping discussions focused on key issues
- e) Follow up on student responses

- f) Performing Scaffolding
- g) Writing conclusions
- h) Engage all students in discussions
- i) Not giving yes and no answers but replacing them with questions that explore student understanding
- j) Ask questions that are appropriate to the student's ability level.

It should be underlined that in using the Socratic method in the learning process, teachers must have skills in asking questions to students / students. Because the dialogue process certainly requires critical questions so that the truth can be found. According to Waris (2014), Socrates, in seeking the truth, always dialogues with anyone who meets him. It was through this conversation that he saw clearly the existence of individual truths that turned out to be universal. His method is also called dialectical because Socrates always invites people to have a conversation to reveal what really exists and is stored in a person's soul/mind.

B. Critical Thinking Skills

1. Understanding Critical Thinking

Critical thinking is an ability to think rationally and orderly that aims to understand the relationship between ideas and/or facts. The next understanding of critical thinking is the ability to think complex using the process of analysis and also evaluation of information received and in solving a problem. *Critical thinking* can also be interpreted as thinking to find the truth of the information received or in solving problems. Simply put, critical thinking is the ability to think rationally and see a problem objectively so that the results to be obtained are not biased and certainly in accordance with existing reality.

In [1987](#), in a presentation at the *8th Annual International Conference on Critical Thinking and Education Reform*, Michael Scriven & Richard Paul explained that critical thinking involves an active and capable process of conceptualizing, applying, analyzing, extracting, and observing a problem obtained or created from observation, experience, communication and so on. There are 2 components that make up critical thinking skills, namely: Ability to generate and process information or beliefs, and Habits, based on intellectual commitment.

There are several things needed in critical thinking in order to solve the problems faced, which are as follows:

- Identify the problem and find workable ways to solve it
- Understand the importance of priorities and their order in problem solving
- Collect and organize related (relevant) information, recognize assumptions and values that are not stated
- Understanding and using language with accuracy, clarity, and sharpness
- Interpret data, assess evidence and evaluate arguments
- Recognize the existence (or absence) of logical relationships between propositions
- Draw conclusions and permissible generalizations

- Reconstructing one's belief patterns based on broader experience
- Provides an accurate assessment of certain things and qualities in everyday life

In the article *Using writing to develop and assess critical thinking. Teaching of Psychology*, Wade explained that there are 8 characteristics in critical thinking, 1. Activities in formulating questions, 2. Limiting problems, 3. Testing the data obtained, 4. Analyzing various opinions and biases, 5. Avoiding highly emotional considerations, 6. Avoiding excessive simplification, 7. Considering various interpretations, 8. Tolerating ambiguity.

Someone who has the ability to think critically is not easy to believe information that is hoax and uncertain, because someone who has the ability to think critically is able to recognize in detail parts of the whole problem, good at detecting problems, able to distinguish relevant ideas from irrelevant, and most importantly is able to distinguish between facts, diction or opinions.

C. The Relationship Between the Socratic Method and Critical Thinking

Socrates established the importance of "seeking evidence, carefully examining reasoning and assumptions, analyzing basic concepts, and tracing the implications not only of what is said but also of what is done. His method of questioning is now known as the Socratic question and is the most famous critical thinking teaching strategy. In his question model, Socrates highlights the need to think for clarity and logical consistency. He asks people questions to reveal their irrational thoughts or lack of reliable knowledge. Socrates pointed out that having authority does not guarantee accurate knowledge. He established methods of questioning beliefs, examining assumptions carefully and relying on evidence and reasonable reasoning.

Socrates establishes the fact that one cannot depend on those in "authority" to have good knowledge and insight. He pointed out that people may have power and high positions but are very confused and irrational. Socrates argued that for an individual to have a good life or to have a life worth living, he must be a critical questioner and have an interrogative soul. He establishes the importance of asking deep questions that delve deeply into thought before we accept an idea as something worthy of trust.

Critical thinking can be honed by conducting dialogue, one of which is Socratic dialogue which is taught through question and answer to guide and deepen the level of understanding of learners related to the material taught so that learners get their own thoughts. Conklin (2007) suggests that Socratic dialogue is an excellent method to develop students' critical thinking skills where the process that takes place is intellectual discussion in the basis of the content studied. The Socratic method implemented by the teacher will help the teacher to motivate students to actively discuss learning topics critically in dialogue, which challenges learners to actively think about solving problems with an issue raised.

Socrates' method of dialogue or questioning is closely related to the concept of critical thinking because both have the same end goal i.e. the purpose of critical thinking is to establish the mind firmly or disciplined, while Socrates' method of dialogue or questioning seeks to cultivate an inner voice through models and strategies of interrogation and disciplining the mind. Critical thinking

is developed through a system of processes used to shape one's thinking with a focus on reasoning whereas in the Socratic dialogue method asking the right questions is important because good thinking comes from thought-provoking questions (Elder and Paul: 2010).

CONCLUSION

Critical thinking or critical thinking is part of high-level thinking skills, skills that are very important to develop in the learning process. This is an effort to prepare superior human resources who are ready to compete in the midst of global competition.

Studies conducted by TIMSS (*The Trends in International Mathematics and Science Study*) 2011 and PISA (Programme for International Student Assessment) 2012 (OECD: 2014) which show the weak ability of students in Indonesia to reason which is an indication that the critical thinking ability of students in Indonesia is still in the weak category.

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The Socratic method is done by asking questions and answers to guide and deepen the level of understanding related to the material taught so that students get their own thoughts from the results of resolved cognitive conflicts. This method is assumed as an alternative learning method that can be used to develop students' critical thinking skills. Critical thinking can be honed by conducting dialogue, one of which is Socratic dialogue which is taught through question and answer to guide and deepen the level of understanding of learners related to the material taught so that learners get their own thoughts.

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