



APPLICATION OF GUIDED INQUIRY MODEL TO IMPROVE SCIENTIFIC THINKING ABILITY IN SCIENCE LEARNING IN CLASS V SDN 8 KWANDANG

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Article history:	Abstract:
Received: 8 th September 2021 Accepted: 8 th October 2021 Published: 25 th November 2021	This study aims to determine how the scientific thinking ability of students in science subjects in class V. Natural Sciences (IPA) is a subject related to how to find out about nature systematically, so that science is not only mastery of a collection of knowledge in the form of facts, concepts, or principles, but also a process of discovery. And to improve scientific thinking skills in science learning, I use the guided inquiry model. The guided inquiry model can encourage students to actively explore their own knowledge so that students can become independent, active, and skilled in solving problems based on the information and knowledge obtained.

Key Words: Guided Inquiry Model, Scientific Thinking Ability, Science Learning

INTRODUCTION

Based on Law Number 20 of 2003 concerning the National Education System, education aims to develop the potential of students to become human beings who believe and are devoted to God Almighty, have noble character, are healthy, knowledgeable, capable, creative, independent and become good citizens. democratic and responsible. From this explanation, it can be said that education is a conscious and planned effort to create a learning atmosphere and learning process so that students can actively develop their talents and abilities optimally, so that they can become useful human beings both for themselves, society, nation and country. Seeing the importance of education for a nation, education should receive continuous attention in an effort to improve its quality. Improving the quality of education also means improving the quality of human resources. High quality education is very much needed to support the creation of intelligent, qualified, and competitive human resources from this global era. One of the areas of education that should be noted in the development of knowledge and technology is the education of natural sciences.

Natural science, which is often referred to as science education, is one of the main subjects in the education curriculum in Indonesia, including at the elementary school level. Science is a science that teaches a variety of knowledge that can develop the power of reasoning, analysis so that almost all problems related to nature can be understood. Through natural science education, it is hoped that students will gain experience in the form of the ability to reason inductively with various concepts and principles of natural science. It is hoped that the acquired abilities can be used to uncover natural phenomena in everyday life, apply the principles of natural science with technology, develop scientific habits and attitudes to discover and improve understanding of concepts student.

RESEARCH METHOD

The writing of this guided inquiry scientific paper is a scientific work that uses qualitative research by collecting data through relevant literature reviews.

DISCUSSION

Guided Inquiry Model

Inquiry learning is a learning model that prepares students in situations to conduct their own experiments so that they can think critically to seek and find answers to a question in question. Guided inquiry (Guide Inquiry) is one of the inquiry learning models designed to teach concepts or relationships between concepts. Guided inquiry is also a learning model in which the teacher guides students to carry out activities by providing initial questions that lead to a discussion. The teacher gives an active role in determining the problem and the stages of the problem and the stage of solving it. So, guided inquiry is one of the inquiry learning models which is a discovery learning model material concepts carried out by means of discussion. Students are given how many questions and students find their own problems with the guidance of the teacher. According to Amijaya (2018) the guided inquiry model can encourage students to actively explore their own knowledge so that students can become independent, active, and skilled in solving problems based

on the information and knowledge obtained. Physical and mental activities of students in guided inquiry learning activities can improve students' cognitive learning outcomes. In classes that use the guided inquiry model, students are given the opportunity to be directly involved in learning activities so that students are motivated to learn and the learning process is memorable. Active involvement of students in learning will improve learning outcomes.

Meanwhile, according to Dewi (2013) the advantage of the guided inquiry model is the teacher. able to guide students in carrying out activities by asking initial questions and leading to a discussion. Teachers have an active role in determining problems and the stages of solving them. This guided inquiry is used for students who are less experienced in inquiry learning. Through the inquiry learning model, students learn to be oriented towards guidance and instructions from the teacher so that students can understand the concepts of the lesson, so that with this model students are not easily confused and will not fail because the teacher is fully involved.

Scientific Thinking Ability

Thinking is one of the psychological activities in the aspect of human cognition (recognition) which is defined as the process of manipulating or managing and transforming information in memory which is often done to form concepts, reason and think critically, make decisions, think creatively, and solve problems. While scientific thinking is thinking logically and empirically. Logical: reasonable, empirical: Discussed in depth based on facts that can be accounted for. Scientific thinking, namely thinking in a broad relationship with a more complex understanding accompanied by evidence.

According to Hami (2016), the process of managing and transforming the information that makes up the discovery takes place in a thought process that directed at a goal. Thus, thinking is an activity of the human person that results in discoveries that are directed towards a goal. Human thinking activities use reason as a tool that can put the relationships between being discovered and found out so as to produce thoughts in the form of language. Such a process takes place in such a complex manner that begins with thinking activities that are processed by the mind as a tool for generating thoughts. Freedom of thought is the main pillar in scientific research. A research will not be true without freedom of thought. Freedom of thought comes from the original form of the human mind and external rules that affect the way human thinking. God by His will made the human mind free from the bondage to think about everything. Likewise, religious, worldly principles, laws, social regulations, as well as the results of understanding and values, directly affect perceptions and patterns of thinking.

Science Learning

Natural Sciences (IPA) is a subject that deals with how to find out about nature systematically, so that science is not only the mastery of a collection of knowledge in the form of facts, concepts, or principles but also a process of discovery.

According to Endah (2017), science learning should be carried out by scientific inquiry (scientific inquiry) to cultivate the ability to think, work and behave scientifically and communicate it as an important aspect of life skills. Therefore, science learning in SD/MI emphasizes providing direct learning experiences through the use and development of process skills and scientific attitudes. Therefore, in learning science at SD/MI students are required to know their own knowledge, teachers need to provide learning models that are able to provide fun and interest so that students want to seek knowledge enthusiastically.

Meanwhile, according to Widiawati (2015) Through natural science education, it is hoped that students will gain experience in the form of the ability to reason inductively with various concepts and principles of natural science. It is hoped that the acquired abilities can be used to uncover

Natural phenomena in everyday life, applying principles from natural science with technology, developing scientific habits and attitudes to discover and improve students' understanding of concepts. Concept understanding has an important role in the teaching and learning process and is the basis for achieving learning outcomes. The concept is the conclusion of an understanding consisting of two or more facts with the same characteristics. To embed a concept in a lesson, a teacher needs to teach it in a real context by relating it to the surrounding environment. This will be able to develop students' critical thinking skills and improve their conceptual understanding of the material being taught.

CONCLUSION

High quality education is very much needed to support the creation of intelligent, qualified, and competitive human resources from this global era. One of the fields of education that needs to be considered in the development of knowledge and technology is natural science education. For this reason, various processes are needed in learning. Such a process takes place in such a complex manner that begins with thinking activities that are processed by the mind as a tool for generating thoughts. Freedom of thought is the main pillar in scientific research. A research will not be true without freedom of thought.

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