

Literature review: Philosophical Views on Ecotourism-Based Contextual Science Learning

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Abstract: Ecotourism-based contextual science learning is one of the sciences about learning in the science field which is carried out with a contextual approach (CTL) and then associated with its meaning in the field of ecotourism. Science is studied in 3 (three) major aspects of philosophy, namely ontology, epistemology, and axiology. Ecotourism-based contextual science learning, ontologically, the discussion focuses on ecotourism-based contextual science learning. Does learning really exist? Or is it just a name? How is it different from other learning? So contextual science learning based on ecotourism ontologically tries to prove and examine that science can really be proven to exist. The epistemology of ecotourism-based contextual science learning basically talks about the basics, sources, characteristics, truths, and ways to gain knowledge about ecotourism-based contextual science learning. The most important aspects discussed in the epistemology of ecotourism-based contextual science learning are the sources and methods of that knowledge. So, when ecotourism-based contextual science learning is highlighted through epistemology, the discussion is focused on how the sources are used in developing the knowledge and what methods are used because each type of knowledge has different sources and methods of knowledge. When ecotourism-based contextual science learning was born, he actually had to or had carried out an axiological test.

Keywords: Science learning; Contextual; Ecotourism; Science Philosophy

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INTRODUCTION

This article is a literature review article from various journals, both national journals, and international journals. This article examines ecotourism-based contextual science learning in terms of 3 (three) main aspects of the philosophy of science, namely ontology, epistemology, and axiology. This article is grouped into 3 (three) search groups, namely Science Learning, contextual, and ecotourism.

Science is a science that is always related to everyday human life (Rull, 2014). The phenomena that occur around us are one part of scientific knowledge that sometimes we as humans do not know and know more about these natural phenomena. Examples are how humans can develop from infancy to old

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age which is explained in Biology, how seawater tastes salty which is explained in Chemistry lessons and why coconuts always fall down which is explained in Physics. All of that is part of the natural sciences (IPA).

Science is a natural learning concept and has a very broad relationship related to human life (Handayani et al., 2013). Science learning plays a very important role in the educational process and also in the development of technology because science has an effort to arouse human interest (Palupi et al., 2014) as well as the ability to develop science and technology as well as an understanding of the universe which has many facts that have not been revealed and are still secret so that the results of their discoveries can be developed into new natural sciences and can be applied in everyday life (Susanti & Ruqoyyah, 2021).

Science education has developed in developed countries and has been proven by new discoveries related to technology (Astriany, 2015). However, Indonesia itself has not been able to develop it. Science education in Indonesia has not yet reached the desired standard, even though to advance science and technology (IPTEK) science is important and becomes a benchmark for the nation's progress. The reality is that in Indonesia, science subjects are not very attractive and less attention is paid to them. Especially considering the lack of educators who apply the concept of science. This problem can be seen in the way science learning and curriculum are applied according to or even complicate the school and students, the problems faced by science education itself in the form of materials or curriculum, teachers, facilities, student equipment, and communication between students and teachers and relations with outside communities. school.

To overcome these problems, learning needs to be carried out that emphasizes student involvement in applying science learning in everyday life. One good learning approach to use in science learning is a contextual approach. The results of research conducted by (Adnyana et al., 2019) shows that there are differences in science learning outcomes between students who follow the environment-based contextual learning model and students who follow the conventional learning model.

In order to develop students' critical thinking skills in science learning and to realize interesting science learning for students, an innovative learning model is needed that is in accordance with the characteristics of science learning. Learning that can be an option to improve students' critical thinking is learning with a contextual approach or Contextual Teaching and Learning (CTL) (Hendra, 2021). Through CTL students can understand facts, concepts, generalizations, and theories in learning related to the context, both the context of time and the context of place (Susanti & Ruqoyyah, 2021). CTL allows students to solve various problems in the real world and in their daily life environment.

Every environment of students has the potential to become a tourism industry (Baroroh, 2020). Learning that involves the environment has a major impact on environmental preservation. Human efforts in preserving nature for the survival of the community are called ecotourism (Satria, 2009). Thus, science education is very appropriate to be taught with a contextual approach and associated with ecotourism for sustainable development.

The existence of ecotourism-based contextual science learning needs to be reviewed first from its origin, the process of its existence, and how the value is obtained for its existence. These studies in philosophy are called ontology, epistemology, and axiology. Systematic philosophy is usually divided into three major branches of philosophy, namely the theory of knowledge, the theory of nature, and the theory of value (Bahrum, 2013; Mahfud, 2018; Chasanah, 2013). This literature review manuscript is literature from several scientific articles that have been published in journals. The purpose of this literature review is to find out about ecotourism-based science learning from the perspective of the Philosophy of Science, namely ontology, epistemology, and axiology.

METHOD

In this article, the author uses the literature study method or conducts a study of various scientific articles published in both national and international journals related to the topic raised, namely the study of ecotourism-based contextual science learning in Ontology, Epistemology, and Axiology. This study aims to determine the extent to which the topic is related to its current development so as to produce new knowledge and contribute to a science that can be useful for the public

RESULT AND DISCUSSION

Ontology study of ecotourism-based contextual science learning

Philosophy is a comprehensive science that seeks to understand the problems that arise within the entire scope of human experience (Suminar, 2016; Kivunja & Kuyini, 2017; Kirom, 2016). Thus, philosophy is needed by humans in an effort to answer questions that arise in various fields of human life, including life problems in the field of education. Philosophy in seeking answers is carried out in a scientific, objective way, providing accountability based on human reason, as well as answering human problems in the field of education (Rahayu, 2021).

In principle, philosophy places something based on the ability of human reasoning (Mubhar, 2015). Truth in the context of philosophy is a truth that depends entirely on the ability of human reasoning (Ahmadi et al., 2021). The ability to think or reason is a form of activity of the human mind through knowledge received through the five senses, processed and aimed at achieving a truth (Caitra, 2019). Thus, philosophy focuses on the ability of human reason to think and achieve truth.

Ontology is often identified with metaphysics, which is also called proto-philosophy or first philosophy. The issue of ontology becomes the main discussion in the field of philosophy, which discusses truth or reality. Reality is a reality that then leads to something true (Suminar, 2016). The reality in this ontology raises questions. In education, the activity of guiding children to understand the reality of the world and fostering awareness of the truth that stems from reality is a stimulus to explore the truth of the first stage. Thus, the critical thinking potential of children to understand the truth has been fostered from the beginning by teachers at school or by parents in the family.

Ontology basically talks about the nature of "existing" science knowledge, the nature of the object of knowledge, and the nature of the subject-object relationship of science (Ruth et al., 2021). How science is reviewed ontology, the discussion is ontology conducting examinations, analyzing science based on whether science really exists or does not exist. Ecotourism-based contextual science learning, ontologically, the discussion focuses on ecotourism-based contextual science learning. Does learning really exist? Or is it just a name? How is it different from other learning? So contextual science learning based on ecotourism ontologically tries to prove and examine that science can really be proven to exist.

Natural science (IPA) is a science that studies natural phenomena in the form of facts, concepts, and laws that have been verified through a series of research (Fitriyati et al., 2017). Learning science in education units is called science education. Science learning can help students to understand natural phenomena. One of the right approaches to involving students in science learning involving natural phenomena is a contextual approach which is a learning strategy that emphasizes the process of full involvement of students to find the material learned and relate it to real-life situations so as to encourage students to be able to apply it in their lives (Handayani et al., 2013). The contextual approach can be successful because it fits the human conscience that is always thirsty for meaning (Budiman & Munfarid, 2017). Thus, science learning can be taught by fully involving students to be more familiar with natural phenomena with this contextual approach.

The ontology of ecotourism-based contextual science learning is necessary for every human being who wants to thoroughly study the universe. Ontology is the essence of what is studied or the science itself. Ontology is a theory about the meaning of an object of knowledge. Ontology is a specification of a concept, in other words, ontology is an explanation of a concept and its connectedness to that science.

Epistemological Study of Ecotourism-Based Contextual Science Learning

Epistemology is defined as a branch of philosophy that deals with the nature and scope of knowledge, its basis, and the assertion that a person has knowledge. Epistemology is a science that discusses the authenticity, understanding, structure, methods, and validity of science. So, epistemology is a science that studies things related to knowledge and is studied substantively.

While ontology seeks to reflectively search for what exists, different epistemology attempts to discuss the occurrence and truth of science. The epistemological foundation has a very important meaning for the building of knowledge because it becomes a foothold where good knowledge is one that has a strong foundation.

Epistemology is another name for material logic or major logic which discusses the contents of the human mind, namely knowledge (Sobur, 2015). Epistemology is the study of knowledge, and how to know things (Suminar, 2016). This knowledge seeks to answer questions such as: how humans acquire and capture knowledge and types of knowledge. According to epistemology, every human knowledge is the

result of examining and investigating objects until they are finally known to humans. Thus, this epistemology discusses the sources, processes, conditions, limits of facilities, and the nature of knowledge that gives trust and guarantees to give truth to others. While ontology seeks to reflectively search for what exists, different epistemology attempts to discuss the occurrence and truth of science. The epistemological foundation has a very important meaning for the building of knowledge because it becomes a foothold where good knowledge is one that has a strong foundation (Rokhmah, 2021).

Epistemology is another name for material logic which deals with knowledge. Epistemology is the study of knowledge that examines how to know things. In addition, epistemology is a philosophical doctrine that emphasizes the role of experience in acquiring knowledge and minimizes the role of reason. Because basically the knowledge obtained using the senses of the catch is actively passed on and displayed by reason. This knowledge seeks to answer questions such as how humans acquire and capture knowledge and its types. Epistemology assumes that every human knowledge is the result of examining and investigating objects so that they can finally be known to humans. Thus, it is clear that this epistemology deals with the source,

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Epistemology deals with how knowledge is acquired. Thinking is a mental activity that can produce knowledge. The scientific method is needed in the form of disclosing the workings of the mind so that it makes it easier for the mind to move the thinking activity. The scientific method is the foundation used in the epistemology of science. The scientific method is the method used by science in compiling true knowledge. The scientific method is a procedure for obtaining knowledge. Therefore, science is knowledge obtained through the scientific method. The scientific method is a determinant of whether or not knowledge is feasible to become a science, so it has a very important function in building science. Therefore,

Furthermore, philosophers have divided the scientific method or scientific thinking patterns that are used as a way to obtain scientific knowledge, the scientific thinking patterns are divided into two types, namely: First, deductive thinking patterns. Deductive thinking gives a rational and consistent nature to pre-existing scientific knowledge. With this method, we can start thinking activities from various existing scientific theories and then make hypotheses to be tested for proof. This deductive model is known as *logico-hypothetico-verificative*. Second, inductive thinking patterns. Inductive thinking provides a pattern where thinking activity starts from a person's ability to reveal events around him. The incident is then analyzed to produce an objective and empirical description and concept

Axiology Study of Ecotourism-based Contextual Science Learning

One branch of the philosophy of science that questions how humans use their knowledge is called axiology. Axiology tries to reach the nature and benefits that exist in knowledge. It is known that one of the benefits of science is to provide benefits and convenience for human life. This is what makes axiology choose a very important role in a process of developing science because when a branch of science does not have axiological value, it will be more likely to bring harm to human life and it is also possible that the science concerned can threaten social life and the balance of nature.

Axiology is a field that investigates values (Suminar, 2016;Dwi, 2021;Utami, 2020). Axiology is a branch of the philosophy of science that questions how humans use their knowledge(Rokhmah, 2021). Axiology tries to reach the nature and benefits that exist in knowledge(Syukri & Rizki, 2021). It is known that one of the benefits of science is to provide benefits and convenience for human life. This is what makes axiology choose a very important role in a process of developing science because when a branch of science does not have axiological value, it will be more likely to bring harm to human life and it is also possible that the science concerned can threaten social life and the balance of nature.

Because it is related to values, axiology is related to good and bad, related to worthy or proper, and not worthy or inappropriate. When ecotourism-based contextual science learning was born, he actually had to or had carried out an axiological test. So, in essence, the axiology study of ecotourism-based

contextual science learning discusses whether or not science is appropriate, and whether or not the science is developed.

Based on the axiological basis, a scientific statement can be considered true if the scientific statement contains an axiological element in it, namely the value of benefits for human life. Science has a spirit that wants the value the benefits of that knowledge so the practice of that science must also be based on the values that exist in society. Removing the axiological element from science has weakened the position of science from the point of view of the philosophy of science.

To see an overview of the benefits of ecotourism-based contextual science learning can be seen at the point of ecotourism. Draft Ecotourism (ecotourism) is unique because it can enjoy the beauty of open nature while being able to feel the culture of the local community in everyday life. Ecotourism is a form of travel to natural areas carried out with the aim of conserving the environment and preserving the life and well-being of local residents (Haryanto, 2014).

Back to ecotourism carried out by nature-loving tourists who want the tourist destination to remain intact and sustainable, in addition to maintaining the culture and welfare of the community. However, this form of ecotourism is developing because it is favored by tourists who want to visit natural areas, which can create business activities. Ecotourism is then defined as a new form of responsible travel to natural and adventurous areas that can create a tourism industry (Haryanto, 2014).

The concept of ecotourism is very important to be applied in the world of education. Learning problem-solving models based on their environment can instill critical thinking in students in maintaining and developing the environment. Every student environment has the potential to become a tourism industry. Tourism is seen as contributing to the well-being of the world's population. But on the other hand, tourism development is also often cited as one of the main causes of environmental damage (Baroroh, 2020). Thus, making people aware is very important and one way to start is through ecotourism-based education.

Looking at the point of view of ecotourism, the value of ecotourism-based contextual science learning is very clear because, in the study of axiology, science is a field of investigating or analyzing values.

Axiology provides benefits for anticipating the negative development of human life so that science continues to run on the path of humanity. The working power of axiology include: First, to maintain and provide direction so that the scientific process can find the ultimate truth, then scientific behavior needs to be carried out with full honesty and not oriented to direct interests. Second, the selection of the object of study can be done ethically that does not change human nature, does not degrade human dignity, does not interfere with life's problems and is neutral from dogmatic values, arrogance of power and political interests. Third, the development of knowledge is directed at increasing the standard of living that pays attention to human nature and dignity as well as balance, nature preservation through the use of science and universal findings.

CONCLUSION

Based on the results of the literature review, the author can conclude that contextual science learning is based on ecotourism, ontologically, the discussion focuses on ecotourism-based contextual science learning. Does learning really exist? Or is it just a name? How is it different from other learning? So contextual science learning based on ecotourism ontologically tries to prove and examine that science can really be proven to exist. The epistemology of ecotourism-based contextual science learning basically talks about the basics, sources, characteristics, truths, and ways to gain knowledge about ecotourism-based contextual science learning. The most important aspects discussed in the epistemology of ecotourism-based contextual science learning are the sources and methods of that knowledge. So, when ecotourism-based contextual science learning is highlighted through epistemology, the discussion is focused on how the sources are used in developing the knowledge and what methods are used because each type of knowledge has different sources and methods of knowledge. When ecotourism-based contextual science learning was born, he actually had to or had carried out an axiological test. So, in essence, the axiology study of ecotourism-based contextual science learning discusses whether or not science is appropriate, and whether or not the science is developed. So, when ecotourism-based contextual science learning is highlighted through epistemology, the discussion is focused on how the sources are used in developing the knowledge and what methods are used because each type of knowledge has different sources and methods of knowledge.

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