

# Philosophical Studies in The Development of Basic Writing Materials Based on Brain Based Learning

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## Abstract

This research was conducted to analyze philosophical studies contained in the development of basic writing materials based on brain based learning. Philosophical studies are used there are three, namely, ontology, epistemology and axiology. This research is qualitative research that uses descriptive methods. Data collection techniques used using library studies against references related to the topics studied in this article in the form of literature related to the development of teaching materials, basic writing and brain based learning. The results of this study are a discussion of three studies of the philosophy of science on the development of basic writing materials based on brain based learning. The results of this study are a discussion of three studies of the philosophy of science on the development of basic writing materials based on brain based learning. Ontology studies are formulated to examine a development of teaching materials in third semester students who take basic writing courses in the English education study program, Universitas Indraprasta PGRI. Epistemologically, the methods used in the study are in accordance with learning models based on brain abilities developed by Jensen. Then the axiology foundation contained in the research is the value of educational technology and human value because basically this research is done to develop educational technology in the form of brain based learning teaching materials that can support the performance of lecturers and students so that the learning outcomes created can be maximized.

**Keywords:** *Philosophical Studies, Teaching Materials, Basic Writing, Brain Based Learning.*

## Introduction

Knowledge develops from curiosity, which is a hallmark of man because man is a creature who develops knowledge in earnest. Man develops his knowledge to address these survival needs. He thinks of new things, because he lives not only for survival, but more than that man has a certain purpose in his life that is higher than just survival. This is what causes man to develop his knowledge, and it is also this knowledge that drives man to become a special creature on earth. When viewed from the type of word 'knowledge' included in nouns, which is a noun that briefly has the meaning of everything related to the activity of knowing or knowing. The understanding of knowledge includes all activities in the ways and means used and all the results obtained. To understand more deeply about the notion of 'knowledge', it is necessary to understand the act of 'knowing'. (Paul Wahana, 2016)

Humans use science in various branches, including the science of language. Language is used by humans to communicate which can be done orally or in writing. To master a language requires mastery of four types of skills consisting of the ability to write, read, speak and listen.

Writing as one of the language skills must be mastered through the learning process. Yunus (in Trismanto, 2017) says that writing can be defined as a message delivery activity (communication) by using written language as a tool or medium. Writing skills have their own levels and start from the most basic level, namely basic writing. In mastering these basic writing skills, qualified teaching materials are needed and there are many types of learning that can be used to be proficient in basic writing skills, including brain-based learning known as Brain Based Learning. This learning model has not been widely applied in mastering basic writing skills. Therefore, this study raises philosophical studies in the development of basic writing materials based on brain based learning.

## Method

This research is qualitative research using descriptive methods. This research is conducted through literature study techniques on references related to the development of basic writing materials based on brain based learning. This data collection technique is done by collecting a number of reading material literature related to the philosophy of science, especially about literature related to the development of teaching materials, basic writing and brain based learning. The literature of the reading material can be books, articles and relevant research results. The data that has been collected will then be analyzed inductively. In this research will be discussed philosophical review in the development of basic writing materials based on brain based learning as seen from the study of epistemology, ontology and axiology.

## Results and Discussions

The discussion that will be carried out on the development of basic writing materials based on brain based learning will be seen through three philosophical studies of philosophy of science, namely the study of epistemology, ontology and axiology. The first study is ontology. In language, the term ontology comes from the Greek consisting of two words; *on*: being, and *logos*; logic. So ontology is the theory of being or theory of existence. While according to the term ontology is a science that discusses the nature that exists, in concrete or abstract form. (Tiswardini, 2019) It is also according to other sources mentioned that the ontology discusses what we want to know, how far we want to know. (Princess, 2020) In other words, ontology is a discussion in order to find or get the essence of something. Often people question back what or something that is something, whether in the form of a material or non-material object.

Science ontologically limits the scope of scientific study only to areas within the range of human experience. The object of study that is within the limits of pre-experience and post-experience is left to other knowledge. (Fatkhul Mufid, 2013) Science is only one of the knowledge of many knowledge that tries to study life within certain ontological limits. The determination of the scope of the empirical scientific study limit is consistent with the principle of scientific epistemology that requires empirical verification in the process of discovery and preparation of statements that are scientifically correct. (Surajiyo, 2019)

In relation to the development of basic writing materials based on brain based learning, ontology can be discussed that in the research entitled *Development of Basic Writing Materials Based on Brain Based Learning*, ontology studies are formulated to examine a development of teaching materials in basic writing courses in the English education study program, Indraprasta PGRI University based on learning based on human brain abilities. The object studied was a third semester student in the study program who took basic writing courses. Researchers found a

problem experienced by lecturers and students that resulted in low ability to write students. Though this basic writing course is the first course related to student writing skills so that after attending basic writing lectures students have a strong foundation about writing skills in English. In addition, students often feel bored in the middle of the lecture because the teaching materials used are still conventional and monotonous. This also certainly affects the results of basic writing learning that will be illustrated from the midterm and end of semester exam scores. For that reason, the urgency about the need for more qualified teaching materials related to this course becomes very high. Moreover, teaching materials that will be developed by researchers related to learning methods that are relatively new, namely Brain Based Learning which is expected to be a solution to the problems faced.

The second study is epistemology. Epistemology is a way of gaining knowledge right, because it is a theory of knowledge, nothing but an inseparable continuation of ontology as described above. Without a complete understanding of the ontology of a nature, it is impossible that we will be able to understand and answer from the question of what we are looking for the answer to. (Pari, 2018) This is also the epistemological aspect or theory of knowledge of something, which deals with the nature and scope of knowledge, assumptions, policies, and accountability about the knowledge it possesses. The process of seeking epistemology or theory of knowledge that we are observing and looking for, is usually based on the consideration of skepticism, because it is with doubt that people find out about the various things that surround it. (Shahidah et al., 2020) So this is where new knowledge is born that is explored about something.

The epistemological foundation of science is reflected operationally in the scientific method. (Nursalim, 2017) The scientific method is basically the way science acquires and arranges its body of knowledge based on a logical frame of mind with arguments that are consistent with previous knowledge that has been successfully compiled, lays out hypotheses that are deductions from the frame of mind, verifying hypotheses to test the truth of their statements factually. A logical frame of mind is an argument that is rational in developing an explanation of natural phenomena. (Habibah, 2017) Empirical verification means the objective evaluation of a hypothetical statement of factual reality. This verification means that science is open to truths other than those contained in the hypothesis. Factual verification opens itself to criticism of the framework of thinking underlying the submission of hypotheses. Scientific truth with openness to new truths has a pragmatic nature that is a repetitive process or cycle based on critical thinking. (Wahana, 2016)

In relation to the development of basic writing materials based on brain based learning, epistemology can be discussed that the methods used by researchers to find out the object of research are appropriate. The steps in the process of developing teaching materials have been written clearly and in detail because each step stage is explained by the researcher. The teaching material development model that will be used is a learning model based on brain abilities known as Brain Based Learning developed by Jensen (2011). Jensen (2011) stated that there are seven stages that are carried out in implementing brain based learning, namely the pre-exposure stage, preparation stage, initiation and acquisition stage, elaboration stage, incubation and memory encoding stage, verification and confidence checking stage, and celebration and integration stage. The pre-exposure stage will help the brain develop a better conceptual map. While at the preparation stage, lecturers are expected to create curiosity or excitement in students towards learning activities. Then the initiation and acquisition stage allows students to learn learning content. Lecturers are expected to provide a real learning experience to students using a variety of acquisition sources. Furthermore, the elaboration stage is the processing stage of learning materials. At the elaboration stage, students' thinking skills are needed in processing learning

information. Then, in the incubation and memory coding stage, students will be rested for a moment to repeat things that need to be emphasized. In the verification and confidence checking stage, lecturers and students need to confirm the understanding gained from learning conducted through evaluation and in the last stage, namely celebration and integration, it is necessary to instill the importance of love for learning. This stage is designed in such a way that it can be fun and exciting for students.

The third study is axiology. In language the term axiology comes from the Greek word *axios* meaning value, and the word *logos* meaning theory, so axiology contains a theoretical sense of value. (Fithriani, 2019) While in general axiology can be interpreted as a theory of value related to the usefulness of the acquired knowledge. Therefore axiologically or value theory related to the usefulness of a knowledge acquired by humans, by itself can be categorized as beneficial and useful or vice versa. (Syukri & Rizki, 2021) So in the next development of philosophical studies that discuss about axiology gave birth to two branches of philosophy that would later become one of the parent branches of ethical and aesthetic knowledge. Because after all, man is not only required to act and behave, but the value of his behavior of a human being has the value of usefulness or otherwise harming others. Then developed this study into ethical and aesthetic studies in human science until now. Science should basically be used and used for human benefit. Science can be used as a means or tool in improving human standard of living by paying attention to human nature, human dignity, and the preservation or balance of nature. (Khotimah, 2014) Scientific knowledge for the benefit of man is acquired, organized and used communally and universally. Communal means that science is knowledge that belongs together, everyone has the right to use knowledge according to his needs.

In relation to the development of basic writing materials based on brain based learning, axiology can be discussed that is related to the value of educational technology. Based on the reality of the advances in educational technology that exist, researchers try to create a teaching material that is of positive value. That is because the teaching materials can help students in increasing students' interest and motivation to be more active in doing writing tasks. So that the learning outcomes of writing students achieve maximum value. The teaching materials developed in this basic writing course use the Brain Based Learning model designed by Jensen. Developed teaching materials can be used to facilitate learning. Human value arises in the development of educational technology carried out by researchers because the development of teaching materials can be used in the teaching and learning process and serves to help lecturers and students to get satisfactory learning outcomes.

## Conclusion

The development of basic writing materials based on brain based learning can be studied philosophically based on three studies of philosophy of science, namely ontology, epistemology and axiology. Each of these studies has its own discussion specifications. Ontology studies are formulated to examine a development of teaching materials in third semester students who take basic writing courses in the English education study program, Indraprasta University PGRI. Epistemologically, the methods used in the study are in accordance with learning models based on brain abilities developed by Jensen. Then the axiological foundation contained in the research is the value of educational technology and human value because basically this research is done to develop educational technology in the form of brain based learning teaching materials that can support the performance of lecturers and students so that the learning outcomes created can be maximal and satisfactory.

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