

Conceptual Model of Epistemological Beliefs in Elementary School Students

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Introduction

The epistemological beliefs research is about how people know the phenomena of the universe, what theories and beliefs they have about to know, and how epistemological assumptions affect to cognitive processes of thinking and reasoning. In recent years, there has been growing interest in researching children's epistemological beliefs. As Feucht (2017) in his study provided evidence that the level of complexity cannot necessarily be associated with more advanced developmental stages of personal epistemology and the complexity of elementary school children's epistemic beliefs was underestimate in the field of personal epistemology; The purpose of this research is to investigate the epistemological beliefs of children. For this purpose, the questions were: 1) What beliefs do elementary students have in third grade, and 2) which conceptual model could be designed based on students' beliefs.

Methods

The primary method used in this research is Grounded theory. By using a purposeful sampling method, 20 girl students of the third grade in elementary school with a mean age of 9 years old were select. Various techniques, including "draw, write, tell," an in-depth and semi-structured interview with students, were conducted. Then the data about their beliefs and experiences in the process of acquiring these beliefs were collected and analyzed.

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Results

By coding, data categorized, and seven categories emerged. These categories are Individual Mental Scheme, Epistemic Susceptibility, Epistemic Climate, Doubt, Volition, Justification of knowledge, and Multi-dimensional beliefs. The results showed that participants in this research hold multi-dimensional beliefs, which include five dimensions named "Ownership: Authority or Reason, Innateness: Innate or Acquired, Exactness: Certain or Tentative, Simplicity: Simple or Complex, Pace: Quick or Gradual. Dimensions of Exactness, Simplicity, and Ownership have illustrated on nature of knowledge and dimensions of Innateness and Pace have indicated on nature of knowing. All these dimensions can appear in a continuum from naive to sophisticated.

Discussion

Based on the conceptual model developed in this research, the categories of individual mental schema, epistemic susceptibility and epistemic climate as "Fundamental Components" and categories of doubt, volition, and justification of knowledge in the form of "change mechanism" had contribution in the process of creating and developing epistemological beliefs of students in a way that can lead to formation the multi-dimensional epistemological beliefs. The results of this study will help educators to find new findings of student's beliefs about knowledge and knowing as well as its development process. They can lead to better educational planning by understanding the epistemological beliefs of students.

Keywords: Epistemological Beliefs, Grounded Theory, Qualitative Research, Elementary school students

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