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Thesis Advisory Committee : Assoc.Prof.Dr. Kingfa Sintoovongse,

Assoc.Prof. Chaveewan Narakol.

Abstract

The purpose of this study was to identify the characteristics of Scientific Literacy in Thai context. There were two phases of this study. The first phase was a survey research designed to investigate the conceptual framework of the Scientific Literacy by using the questionnaire sent to the 8 selected science educators. The data were collected and analyzed to determine the conceptual framework. This framework was then used as a guideline for the construction of the instruments being used to administer in the Delphi study on the second phase of this research. There were 14 subjects in this phase consisting science educators and experts who were involved in science education. The data from two rounds of the Delphi study were collected and analyzed to determine the consensus of the respondents using mode, median and inter-quartile range including the opinions obtained from the sample subjects.

The findings of this research demonstrate that the Scientific Literacy in Thai context has been defined as a way in which a person can understand or comprehend all of the scientific knowledge which could be applied appropriately in daily life. The application of the scientific knowledge has to be in accordance with the respective social economic and cultural surroundings as well.

The Scientific Literacy has three components: i) the nature of science; ii) the cognitive science knowledge; and iii) the habits of mind. In addition, there were opinions that the Scientific Literacy in Thai context should be concerned with the following issues: 1) the understanding of the relationships between science and technology ; 2) the knowledge and understanding of the impact of science and technology on society ; 3) the recommendation that the scientific values and scientific attitudes should be inculcated ; 4) science process skills ; 5) mathematics skills ; 6) the application of science and technology in daily life ; 7) the understanding of basic scientific knowledge and its limitations ; 8) appreciation and awareness of the significance of science ; 9) the use of scientific knowledge with the consideration of moral and ethical aspects ; 10) the understanding of some natural phenomena which are related to human beings but inexplicable.