

Sukratda Wongsasuk 2009: The Development of Scientific Literacy on
“Global Warming” by Science Project Activity. Master of Arts in Teaching,
Major Field: Teaching Science, Department of Education.
Thesis Advisor: Mr. Pongprapan Pongsophon, Ph.D. 215 pages.

The objectives of this research were to examine the effect of science project activity on students’ level of scientific literacy on “Global Warming” The participants were forty two grade-11 students from one large-size school in Nonthaburi who enrolled Science Project course in the first and second semester, academic year 2008. This study had 2 phases. The first phase is to design and develop Science Project Learning Unit. The second phase is to implement the learning unit and evaluate its effectiveness in term of the promotion of scientific literacy on global warming. The research tools were the questionnaire about students’ scientific literacy on “Global Warming” which consisted of two parts. The first part was the perception about the keywords of “Global Warming”. The second part was the scientific literacy on “Global Warming” which consisted of three parts (aspects of the scientific literacy, known as KEN); Knowledge (K), Engagement (E) and Nature of Science (N). The data were analyzed by content analysis and categorization. The profile of scientific literacy of the whole group of students was illustrated the mean score of each aspect.

The results indicated that science project activity could increase the students’ perception about the keywords of “Global Warming” and the students could explain the definition of these words related to the scientific concept. Moreover the students could develop the scientific literacy on “Global Warming”. The mean score of content knowledge had increased from 59.25 to 85.75. The students had developed scientific understanding in the concepts of causes, process and consequences of Global Warming. In the aspect of engagement, the mean score increases from 61.90 to 100. In the aspect of the nature of science, the mean score has increased 54.17 to 94.33.

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Thesis Advisor’s signature

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