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(ENVIRONMENTAL EDUCATION)

KEY WORD : DEVELOPMENT AND ASSESSMENT/SUPPLEMENTARY
READING BOOK/THE UPPER SECONDARY SCHOOL LEVEL.

SORNCHAI MOONKHAM : THE DEVELOPMENT AND ASSESSMENT OF A
SUPPLEMENTARY READING BOOK ON GREENHOUSE EFFECT IN PHYSICAL-
BIOLOGICAL SCIENCE AT THE UPPER SECONDARY SCHOOL LEVEL. THESIS
ADVISOR : RACHANONT SUPAPONGPICHATE, M.S., Ph.D., CHALONG
BOONYANANTA, M.Ed., Ph. D., VINAI RODJAI, M.S., 141p. ISBN 974-589-630-6

The objective of this research is to develop an effective supplementary reading book about greenhouse effect for upper secondary school students. The effectiveness of using the book for understanding greenhouse effect and the application of the knowledge gained from the book in everyday life were also examined. Research was undertaken with 2 groups of 46 students i.e. experimental group and control group. The experimental method used was the pretest posttest control group design. In addition, assessment on the quality of the book was also done by concerned experts.

The result of the research reveals that the knowledge level of the students in the experimental group who had read the supplementary reading book was higher than the knowledge before the reading, and was higher than the students in the control group who had not read the book at the significant level of 0.01. On the aspect of satisfaction with the book, both the experimental group of students and the experts rated it with high satisfaction.

In conclusion, the supplementary reading book is suitable for use as a supplementary book on physical-biological science at the upper secondary school level because of the effectiveness of the book in increasing knowledge of students about greenhouse effect.