HOME ELECTRIC ENERGY SAVING MODEL THROUGH ENVIRONMENTAL EDUCATION PROCESS

TARADOL TEPAREENUN

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF EDUCATION (ENVIRONMENTAL EDUCATION) FACULTY OF GRADUATE STUDIES MAHIDOL UNIVERSITY 2012

COPYRIGHT OF MAHIDOL UNIVERSITY
HOME ELECTRIC ENERGY SAVING MODEL THROUGH ENVIRONMENTAL EDUCATION PROCESS

TARADOL TEPAREENUN  5037902 SHED/D

Ed.D. (ENVIRONMENTAL EDUCATION)

THESIS ADVISORY COMMITTEE: PATTARARABOON PICHAYAPAIBOON, Ed.D., PORNTIDA VISAETSILPANONTA, Ph.D., THERAPHON THEPHASADIN NA AYUTHYA, Ed.D.

ABSTRACT

The purposes of this research were 1) to develop the electric energy saving model in households through the environmental education process, and 2) to evaluate the effectiveness of the electric energy saving model in households through the environmental education process. The research instruments included the use of an electric energy questionnaire, the electric energy saving control equipment evaluation form, the electrical energy saving understanding test, the behavior and quantity of electric energy use interview, and the satisfaction about the training evaluation form.

There were two sample groups: 1) 351 people who were the leaders of their households in Amata Nakorn Industrial Estate area who gave information about the use of electric energy in households and 2) 14 households for evaluating the effectiveness of the electric energy saving model.

The results of this research found that 1) most of the residents in households did not know how to save electric energy, never get information about energy conservation, and have never been trained about energy saving. The electric energy used on average was 287.7 units/household; 2) The development of the electric energy saving model through the environmental education process should consists of two main parts: the construction of knowledge and understanding about the use of electric appliances and the management of electric energy use, and the development of electric energy saving equipment. It is indicated that the electric energy saving equipment could reduce the use of electricity about 13.14 percent. The knowledge about electric energy saving of the control group after training was significantly higher than before, at the 0.05 level, and also significantly higher than the control group at the 0.05 level; and 3) the behaviors in the use of electric energy of the control group had improved and could save electric energy.

The related organizations or communities should apply the electric energy saving model to give the knowledge to community members for sustainable electric energy saving. In addition, the process of educating community members should begin from a leader of each household because he/she could transfer knowledge to other members, which is a proactive problem solving process that involves community participation.

KEY WORDS: HOME ELECTRIC ENERGY SAVING / ENVIRONMENTAL EDUCATION PROCESS / ENERGY SAVING MODEL

267 pages
HOME ELECTRIC ENERGY SAVING MODEL THROUGH ENVIRONMENTAL EDUCATION PROCESS

Chapter 3

Thesis Title: "Environmental Education and Home Electric Energy Saving Model" by N. Chang and M. Phan

Copyright by Mahidol University