**TITLE** : Research and Development of Science-Learning Activities

Management in the entitle “The Force Used in a Daily Life” for

Grade 8 Students

**AUTHOR :**  Suchitra Juntakeeree  **DEGREE** : M.Ed. (Educational Research and

Evaluation)

**ADVISORS :**  Asst. Prof. Dr. Paisarn WoraKham Chairman

Dr. Piyatida Panya Committee

**Rajabhat Maha Sarakham University, 2015**

**Abstract**

The objectives of this research were: 1) to study problems and the ways to developing of science-learning activities in the entitle “The Force Used in a Daily Life” for grade 8 students, 2) to develop and study the effectiveness of science-learning activities in the entitle “The Force Used in a Daily Life” for grade 8 students, 3) to trial the science learning management plan in the entitle “The Force Used in a Daily Life” for grade 8 students, and 4) to study the students’ satisfaction to the learning activities. The sample was 119 grade 8 students and science teachers at municipal schools in Nongkhai City Municipality that were chosen by purposive sampling. The research instruments were: 1) the interview form to studying problems and the ways to developing of science-learning activities in the entitle “The Force Used in a Daily Life” for grade 8 students, 2) the 10 science-learning plans in the entitle “The Force Used in a Daily Life” for grade 8 students, 3) the 30-items for learning achievement test, 4) the 25-items science process skills test, and 5) the 15-items for student’s satisfaction questionnaire. The statistics for data analysis were percentage, mean, standard deviation, and dependent sample t-test.

Research results were as follow:

1) The grade 8 students had problems in the lever, speed and velocity, action force in objects motion, work calculation from area under the graph, and the friction force.

2) The science-learning activities used for problem solving were questioning method and solving-problem technique in KWDL style which integrated to teaching techniques in 10 lesson plans for science-learning activities in the entitle “The Force Used in a Daily Life” for grade 8 students.

3) The lesson plans for science-learning activities in the entitle “The Force Used in a Daily Life” had efficiency (E1/E2) was 84.38/85.75, and effectiveness index was 0.66, and after the trial students had learning achievement and science process skills higher than before trial statistically significant .01 level.

4) The grade 8 students were satisfied to science-learning activities in the entitle “The Force Used in a Daily Life” at the highest level ( = 4.92, S.D. = 0.23)