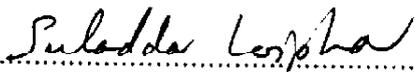
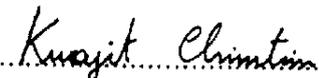


THESIS TITLE : THE DEVELOPMENT OF LEARNING AND TEACHING
MATHEMATICS ACTIVITIES WITH THE EMPHASIS
ON CREATIVE THINKING FOR PRATHOM SUKSA IV
STUDENTS

AUTHOR : MISS SAWITTREE WONGSUGUNL

THESIS ADVISORY COMMITTEE :


..... Chairman
(Associate Professor Dr. Suludda Loipha)


..... Member
(Assistant Professor Kuajit Chintim)

ABSTRACT

The objectives of the research were 1) to develop mathematics teaching learning activities with concentration on creative thinking of the fourth grade; 2) to develop mathematical learning achievement of the pupils from 70% upwards; 3) to develop creative thinking in mathematical problem solving of the pupils. Thirty seven pupils of the fourth grade of Khon Kaen University Demonstration School (under the Faculty of Education) in the first semester, Academic Year 1999 were the study subjects. The instruments included 1) learning - teaching materials, including 25 lesson plans with concentration on mathematical creative thinking; 2) feedback gathering instruments, including Learning Teaching Activity Observation Form, Learning Experience of the Student Form, Skill Practice Form and quiz; and 3) evaluative tests for measuring mathematical creative thinking for evaluating the efficiency of the model, including the Criterion Referenced Learning Achievement Test and the Mathematical Creative Thinking Measurement Test which were developed by the researcher.

The study was as action research which had four practice cycles : the first cycle was teaching lesson plan 1 - 5, the second cycle was teaching lesson plan 6 - 11, the third cycle was teaching lesson plan 12 - 18, and the fourth cycle was teaching lesson plan 19 - 25 by using the developed teaching model. In collecting data , the researcher recorded learning - teaching activities from the observation , learning - teaching experience , interviewing , field recording , quiz and skill exercise. After that the data were analyzed for calculating means , standard deviation , frequency and percentage for finding some guidelines for improving learning - teaching activities for the following cycle.

The Results

1. The pupils could develop their learning achievement and their creative thinking for solving mathematical problems by using four steps of learning - teaching activities. They were 1) the introductory step by informing the behavioral objectives and background foundation reviewing ; 2) the teaching step by presenting lesson to the class which there were four subjects, including (1) facing the problem and testing the problem understandingly, (2) presenting possible problem - solving , (3) checking the clarity and the rightness of the problem - solving method, and (4) testing step and accepting the problem - solving method ; 3) concluding step by letting the pupil conclude the idea and concepts ; and 4) measuring step by letting the pupils do homework exercises.

2. The average percentage in mathematics achievement of The pupils was 74.51 % and 75.68 % of the pupils gained more than 70% which was not consisting with the set research objective (all pupils gained more than 70%).

3. The pupils could increase their mathematical creative thinking score from 44.27 % for pre - test to 57.08 % for post - test which was consisting with the set research objective.