


THESIS TITLE : THE DEVELOPMENT OF A TEACHING AND  
LEARNING MODEL FOR THE PREPARATION OF  
MATHEMATICS READINESS WITH THE EMPHASIS  
ON THE DEVELOPMENT OF CREATIVE THINKING  
FOR KINDERGARTEN PUPILS

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#### Abstract

The purposes of the study were 1) to develop teaching model for mathematics readiness program of kindergarten pupils emphasizing on creative thinking skill , 2) to study pupils' creative thinking ability in mathematics and 3) to develop pupils' to the assumed criteria of 80 percent and above.

The samples consisted of 30 second-year kindergarten pupils of Ban Nong Ga Thum Elementary School , Pak Chong District , Nakhon Ratchasima Province , studying in the second semester of the academic year 1998 ( B.E. 2541 ).

The instruments were 1) tools for the operation which were 24 lessons for mathematics readiness program of kindergarten pupils emphasizing on creative thinking skill , 2) tools reflecting the operation which were learning and teaching observation form , teaching record form ,exercises and formative tests and 3) tools evaluating the efficiency of the teaching model which were test on mathematics readiness program, test on creative thinking skill through language and test on creative thinking skill through pictures as used by Torrance.

This action research had 3 stages. Each stage consisted of 8 lessons which were 1-8, 9-16 and 17-24 respectively. During each stage the researcher collected data from observation, records, interviewing, exercises and formative tests to improve the lessons.

The results of the study were as follows:

1. The developed teaching model for mathematics readiness program of kindergarten pupils emphasizing on creative thinking skill with four teaching procedures was obtained. The four teaching procedures were 1) *Warm-up* - the teacher prepared the pupils for the new lesson by reviewing the pupils' background knowledge relating to the new lesson, 2) *Presentation* - the teacher developed the pupils' creative thinking skill by providing them with the problems, and the strategies to solve the problems, 3) *Conclusion* - the pupils concluded the principles and strategies leading to problem solution, 4) *Practice* - the pupils applied the principles to new situations provided.

2. The post-test scores on creative thinking skill of the pupils taught through the developed teaching model were higher than the pre-test ones.

3. The scores on mathematics readiness of the pupils taught through the developed teaching model were higher than the assumed criteria of 80 percent as indicated by 94.08 percent.

4. The pupils taught through the developed teaching model also possessed other dominant characteristics, for instance, they were able to find different ways to solve the problems and they were more skillful in problem solving.