

## SUMMARY

### Introduction:

Our developing society needs to make use of its individuals' mental abilities especially to depend on himself and to participate positively in developing his society through creating solutions for different problems.

### The Problem of the Study:

The problem of this study can be summarized in the following main question:

" How could it be possible to develop the ability of the creative thinking among sixth'year Basic Education pupils through a suggested strategy in teaching mathematics".

This question may be divided to:

- 1- What are the bases that the suggested strategy may be based on to develop the creative thinking among the study sample?
- 2- What is the effect of this strategy on developing the ability of creative thinking?
- 3- What is the relationship between the pupils' level of achievement in mathematics and their ability of creative thinking?

### The Significance of the Study:

- 1- This study will help teachers to recognize

the abilities of creative thinking and some styles to develop it.

- 2- It helps teachers to know the effect of the instructional media and activities used in developing the abilities of of creative thinking.
- 3- The suggested strategy can be useful in building up some other strategies to develop the ability of creative thinking.
- 4- This study helps the curricula designers especially those of teaching mathematics to take care of some bases related to teaching styles.
- 5- This study helps in arranging the content of mathematics' curricula in the following years.

#### The Scope of the Study:

This study is confined to:

- 1- A group of sixth<sup>th</sup> year of Basic Education pupils in Al-Kalubia governorate ( Benha ).
- 2- The second and the sixth unit in the sixth<sup>th</sup> year of Basic Education book.

#### The Hypothses of the Study:

- 1- There are significant differences in the average of the grades of the experimental group in the pre- and post application in the test of the ability of

creative thinking in favour of the post application.

- 2- There are significant differences in the average of the grades of the control group in the pre- and the post application in the test of the ability of creative thinking in favour of the post application.
- 3- There are significant differences between the average of the grades of the experimental and the control group in the post test of the ability of creative thinking in favour of the experimental group.
- 4- There are significant differences between the average of the grades of the experimental and the control group in the achievement in the post test in favour of the experimental group.
- 5- There are a significant relation in the degrees of the pupils of the experimental group in the post test in the achievement and the ability of creative thinking.
- 6- There is a significant relation in the degrees of the pupils of the control group in the post test in the achievement and the ability of creative thinking.

#### Procedures of the Study:

1- Defining the bases on which the suggested strategy may be prepared through:

- a. Theoretical study about creative thinking, its contents, stages, levels- the nature of the mathematics- the styles of developing the ability of creative thinking- the characteristics

of sixth' year of Basic Education pupils' development.

b. Review of literature which dealt with developing the ability of creative thinking and the relation between teaching mathematics and developing the ability of creative thinking.

c. Analyzing the content of sixth' year of Basic Education book to define the basic concepts and skills.

2- Designing the suggested strategy in teaching mathematics to develop the ability of creative thinking.

3- Submitting it to a jury.

4- Preparing the tools of the study:

a. The Pictured Intillegence Test.

By: Ahmed Zaki Saleh.

b. The Ability of Creative Thinking Test.

By: Torrance, translated by: Abdallah Soliman and Fouad Abou Hatab.

c. An Achievement Test in the Content of the Strategy.

By: the researcher.

5- Choosing the sample and dividing it into two groups.

6- The pre application of the tools of the study.

7- Teaching using the strategy suggested by the researcher.

8- Applying the post-test.

The Results of the Study:

The results of this study can be summerized in the following:

First:

Results related to the ability of creative thinking:

- 1- There are significant differences between the average of the degrees of the pupils of the experimental group in the pre and the post test in creative thinking in favour of the post application.
- 2- There are significant differences in the average of the degrees of the pupils of the control group in the pre and the post test in creative thinking in favour of the post application.
- 3- There are significant differences in the average of the degrees of the pupils of the experimental group and the control group in creative thinking in the post application in favour of the experimental group.

Second:

Results related to the achievement test:

- 1- There are significant differences among the degrees of the pupils of the experimental and control group in the post application in favour of the experimental group.

Third:

Results related to the correlation between the achievement and the ability of creative thinking:

- 1- There is a significant relationship between the grades of the pupils of the experimental group in the

achievement and the ability of creative thinking in the post application.

- 2- There is a significant relationship between the degrees of the control group in the achievement and the ability of creative thinking in the post application.



Zagazig University  
Faculty of Education (Benha)  
Curriculum and Methodology  
Department

THE DEVELOPMENT OF CREATIVE THINKING AS INFLUENCED  
BY A SUGGESTED STRATEGY FOR TEACHING SIX GRADE  
MATHEMATICS IN BASIC EDUCATION

A Thesis

Submitted for the Degree of Master of Education  
( Methods of Teaching Mathematics )

By

USAMA ABDEL AZEEM MOHAMMED MOAWED

Supervised By

DR. MOHAMMED AMIN EL-MOFTY  
Assistant Professor of  
Teaching Mathematics,  
Faculty of Education,  
Ain Shams University.

DR. AZIZ ABDEL AZIZ KANDIL  
Assistant Professor of  
Teaching Mathematics,  
Faculty of Education,  
Zagazig University (Benha).

1989