

Introduction

Mathematic problems solving and acquiring skills for solving them are considered one of the most important subjects which held the attention of those who are working in the filed of teaching mathematics, mathematic skills represent an important one of the dimensions of teaching mathematics.

so this study aims to developing the skills needed for solving geometric problems for the first year secondary students.

Problem of the study

The probelm of the persent study can be stated in the following questions:

- 1- what are the skills of solving geometrical problems that must be developed with first secondary students?
- 2- What is the current situation of first-year secondary students' performance on solving geometrical problems?
- 3- what are the bases in the light of which the suggested strategy can be prepared for developing some skills of solving geometrical problems?
- 4- What is the effect of using the suggested strategy on scholastic achievement and on developing skills of solving geometrical problems with first-year secondary students?

Hypotheses of the study

The present study tested the verification of the following hypotheses :

- 1- There are statistically significant mean differer ces between the mean scores of the experimental and the control students on the test of

solving geometrical problems in favour of the experimental group students on the post administration of the test.

2- There are statistically significant mean differences between the mean scores of the experimental and the control students on the achievement test in favour of the experimental group students on the post administration of the test .

Procedures of the study

1- Building up a list of skills that must be developed with first -year secondary students through:

a- previous research

b- view points of experts and specialists of teaching mathematics

c- content analysis of the level- geometry course through to first year secondary students .

d- first-year secondary learner characteristics

2- preparing and standardizing a diagnostic test to measure students performance on skills of solving mathematical problems

3- Administering the test of mathematical problem solving to figure out the current situation of students performance on skills of mathematical problem solving .

4- Designing the suggested strategy through:

a - Results of the test of mathematical problem solving

b- previous research

b- first -year secondary learner characteristics

d- presenting the suggested strategy to jury to judge its validity .

5- Preparing and standardizing a test of geometrical problem solving .

- 6- Preparing and standardizing on achievement test
- 7- selecting a random sample of students and dividing them into control and experimental groups.
- 8- Identifying the level of performance of the sample on the skills of the test of mathematical problem solving on the pre-test
- 9- Teaching by means of suggested strategy to the experimental group.
- 10 - Post administration of the tools of the study
- 11- Data analysis
- 12- Presenting recommendations and suggestions for further research.

Results of the study

the results of the study are as follows:

- 1- there is significant differences between the means of pupils scores of the experimental and control groups in mathematic problem solving skills in favour of the experimental groups
- 2- there is significant differences in the achievement between the experimental and control groups in favour of the experimental group.

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ASUGGESTED STRATEGY FOR DEVELOPING SOME
SKILLS NEEDED FOR SOLVING GEOMETRIC
PROBLEMS AND ITS EFFECT ON THE ACHIEVEMENT
OF THE STUDENTS IN THE SEC ONDARY STAGE

ATHESIS SUBMITTED

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