

## **SUMMARY**

### **Research problem :**

The research problem was limited in low level of primary phase students in achievement in geometric concepts, this pushed the researcher to try using task analysis and concepts mapping in developing these concepts for fifth grade primary phase pupils.

To face this problem, one must answer the following questions:

- 1- What are the geometric concepts included in the unit of geometry and measurement for fifth grade primary phase pupils?
- 2- What are the educational tasks to learn the geometric concepts included in the unit of geometry and measurement for fifth grade primary phase pupils?
- 3- What is the suggested framework for the unit of geometry and measurement for fifth grade primary phase pupils using task analysis?
- 4- What is the suggested framework for the unit of geometry and measurement for fifth grade primary phase pupils using concepts mapping?
- 5- What is the effectiveness of teaching the unit of geometry and measurement using task analysis in developing geometric concepts for fifth grade primary phase pupils?
- 6- What is the effectiveness of teaching the unit of geometry and measurement using concepts mapping in developing geometric concepts for fifth grade primary phase pupils?

### **Research aim :**

The study tried to achieve the following aim :

Measuring the effectiveness of using task analysis and concepts mapping in developing some geometric concepts for fifth grade primary phase pupils.

### **Research hypotheses :**

According to research problem and its questions, the researcher formulated the hypotheses as following :

- 1- There are statistically significant differences between the mean degrees for the first experimental group (using task analysis) and the control group (using the traditional method) in the test of geometric concepts in favour of the first experimental group.
- 2- There are statistically significant differences between the mean degrees for the second experimental group (using concepts mapping) and the control group (using the traditional method) in the test of geometric concepts in favour of the second experimental group.
- 3- There are statistically significant differences between the mean degrees of the first and second experimental groups in the test of geometric concepts in favour of the first experimental group.
- 4- Task analysis and concepts mapping have effectiveness in developing geometric concepts for fifth grade primary phase pupils.

For the researcher to answer the questions of the study problem and designing the hypotheses, the researcher followed the following steps :

**Chapter 1 :** included the study problem, questions, limits, importance, tools, aims, expressions and procedures.

**Chapter 2 :** included the previous and related Arabic and foreign studies related to the study in three axes :

- First : studies dealt with using task analysis.
- Second : studies dealt with using concepts mapping.
- Third : studies care for developing mathematical concepts generally and geometric one specially.

Then the researcher formulated the hypotheses of the study.

**Chapter 3 :** included using task analysis and concepts mapping in developing geometric concepts in the primary phase education in six axes are :

- First : mathematics nature in primary phase education.
- Second : geometric concepts in primary phase education.
- Third : methods of geometric concepts learning and difficulties.
- Fourth : development of geometric concepts for primary phase pupils.
- Fifth : task analysis and geometric teaching.
- Sixth : concepts mapping and geometric teaching.

**Chapter 4 :** included the study steps in the following axes :

- First : Study procedures and include :
  - 1- Analysis of geometry and measurement units for fifth grade

- 1- Analysis of geometry and measurement units for fifth grade primary phase pupils (second term) from determining the general aims then procedural behaviors and analysis aims and classes, measuring validity and reliability.
- 2- Prepare the teacher guide and its activities for unit of measurement and geometry using task analysis.
- 3- Prepare the teacher guide and its activities for unit of measurement and geometry using concepts mapping.
- 4- Prepare the activity book for lessons of the unit of measurement and geometry.
  - Second : prepare the geometric concepts test and examined pilotly and adjust their validity and reliability.
  - Third : conducting study experiment : the study was applied with the experimental design of three matched groups consist of 90 pupils in the fifth grade primary phase divided to three groups two experimental one learn by task analysis and the other by concepts mapping and the third is control learn by the traditional method, after matching the groups, the study was applied and the research tool was applied post-experiment on the three groups.

**Chapter 5 : dealt with the study results and its explanation to test the hypotheses as following :**

- 1- There were statistically significant differences at (0.01) between the mean degrees for the first experimental group (using task analysis) and the control group (using the