

**The Effect of Using Some Self-Regulated Learning Strategies on  
Developing Secondary Stage Students' Mathematical Proof Skills  
And Improving Their Motivation for Learning Mathematics**

**Prepared by**

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**Abstract:**

The Study Aimed at discovering the effect of using Self- regulated learning strategies in Enhancing mathematical proof and measuring motivation towards mathematics learning of general second year secondary stage students in fayoumSecond year stage students in fayoum govern mate .the sample consisted of (66) students divided into (32) students in the experimental group and (34) students in the control group . In order to achieve the aims of the research, the researcher reformed and designed the unit of (geometry and measurement) assigned in (2016- 2017) student book second term, in the light of principles and characteristics of self- regulated learning .the researcher also prepared two tools, one of them is a test mathematical proof skills, the other one is a scale of measuring motivation of female students. After establishing validity and reliability of the tools of the research, the researcher conducted the experiment on the sample of the research after making sure the experimental and control groups are equal After finishing studying the unit and applying the tools of the study. The research showed the following results:

students in each of the test of enhancing mathematical proof and the scale of motivation towards mathematics learning as there were statistically significant differences in favor of the experimental group in the post application for each tool.

proof and motivation towards mathematics learning of students of the sample of the research.

In the light of the results of the research, the researcher recommends the following:

- (1) The effectiveness of a training program based on self-regulated learning strategies in enhancing creative thinking skills of student teachers at faculties of education, mathematics sections.
- (2) The effectiveness of a program based on self-regulated learning strategies in enhancing geometry thinking skills of secondary stage students.
- (3) Using self-regulated learning strategies in enhancing decision making skills of secondary stage students.
- (4) a suggested training program for mathematic teachers of the secondary stage based on self-regulated learning strategies in enhancing mathematical connection skills and mathematical communication of their students.

**Keywords:**Self-regulated-learning–Strategy-Mathematicalproof-