

The Effect of A Training Program on Developing The Mathematical Thinking in Mathematics Achievement and Retention of Seventh Grade Students

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Abstract

The purpose of the study was to investigate the effect of a training program on developing the mathematical thinking in mathematics achievement and retention of seventh grade students. To achieve this purpose a study sample of (182) male and female students was selected from the seventh grade. This sample was divided into four groups. Two groups were randomly chosen to be the experimental groups that studied the training program which aimed at developing the following types and skills of mathematical thinking. Induction, deduction, mathematical proof, logical thinking, reasoning and rationalization and word problem solving. The others were the control groups that studied the textbook using the traditional method. The instrument of the study was an achievement test which was used to measure mathematics achievement and retention of the students. Data analysis procedures using Tow-Way Analysis of Variance revealed a positive effect of using the training program for enhancing the mathematical thinking in students` achievement and retention in mathematics.

For the paper in Arabic see pages (491-525)