

The Effectiveness Of Active Learning Based Program In Mathematics For Developing Of Science Processes And Tendency Towards Mathematics For Fourth Grade Students In South Hebron

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Abstract

The purpose of this study was to reveal the effectiveness of the program based on active learning (discovery, cooperative learning, educational games) in developing the skills of the science processes and the tendency towards mathematics in the fourth grade students in southern Hebron. The study was conducted during the second semester of the academic year 2019/2018, on a target of (54) students from a group which consists of (3663) fourth grade male and female students enrolled in the Directorate of South Hebron, where the sample was distributed to two sections in Imrish Elementary Mixed School, one of which was an experimental group using the active learning program, and was the controlled group studying using conventional methods.

The researcher used the descriptive approach in the theoretical framework of the study and preparation tools, and use the experimental method and quasi-experimental design for suitability for the purposes of the study. The tools of the study were composed of two tools: the first was the test of the skills of the science processes, the second the measure of the inclination towards mathematics, the validity of the mathematics was verified and the methods were applied to the study groups (experimental and controlled) before and after treatment. Averages, standard deviations, Cronbach Alpha and Independent Samples T-Test were used in analyzing the results.

The results of the study were as follows: There were statistically significant differences between the average scores of the experimental group students who studied the active learning program in the pre and post-application to test the skills of the science operations for the post-application.

The results also showed significant differences between the average students of the control group studied in the usual way and the experimental group students who studied the active learning program in the post-application to test the skills of the science processes for the benefit of the experimental.

group. The results showed that there were statistically significant differences between the average scores of the experimental group that studied the active learning program in the before and after application - to measure the tendency to learn mathematics.

The results also showed statistically significant differences between the average scores of the students of the control group and the students in the experimental group who studied

using the active learning program where the results were to the advantage of the experimental group.

Based on the previous results, the researcher recommends the use of the program based on active learning in the teaching of mathematics, because it has positive effects in the development of the science processes and the tendency towards the material, which reflects positively on the achievement of students. The researcher recommends to train teachers to use active learning strategies in teaching, and applying it to existing programs.