

THE EFFECT OF USING GEOGEBRA PROGRAM IN THE DEVELOPMENT OF MATHEMATICAL CONNECTIONS SKILLS OF THE FIRST GRADE SECONDARY STUDENTS IN RIYADH

GHADAH SALEM S AL-NAIMI
Educational Supervisor

ABSTRACT_ *This study aimed to examine the effect of using GeoGebra program in the development of Mathematical Connections skills for secondary first grade students in Riyadh, and to achieve the study aim, the researcher used experimental approach with the quasi-experimental design based of two groups (experimental and control) with the pretest and posttest, where the study sample consisted of 70 female students from the secondary first grade in Riyadh city at the academic year (1436-1437AH). The researcher prepared a test to measure the Mathematical Connections skills in (congruent triangles) unit for secondary first grade students. The study resulted in the following findings: - There is a statistically significant differences at the significance level of (0.01) between the mean scores of students in the experimental and control groups in the post application of Mathematical Connections test in the skill of identify the relationships and links between mathematical ideas and their used favor to the experimental group. - There is a statistically significant differences at the significance level of (0.01) between the mean scores of students in the experimental and control groups in the post application of Mathematical Connections test in the skill of understanding how mathematical ideas link with each other in order to produce an integrated coherent unit favor to the experimental group. - There is a statistically significant differences at the significance level of (0.01) between the mean scores of students in the experimental and control groups in the post application of Mathematical Connections test in the skill of identify the mathematics and its applications in the context outside mathematics favor to the experimental group. - There is a statistically significant differences at the significance level of (0.01) between the mean scores of students in the experimental and control groups in the post application of Mathematical Connections test in the total skill favor to the experimental group. The study recommended the need to training teacher before and during in-service on the use of Geogebra program in teaching mathematics and also math books should include Geogebra program activities for the students and teachers and make studies investigating for the effect of Geogebra program on operations standard in the school math and important variables in teaching and learning mathematics.*

Key word: *GeoGebra program, Mathematical Connections skills*