The Effect of Teaching Geometry Which is Differentiated Based on the Parallel Curriculum for Gifted/Talented Students on Spatial Ability

Abstract
The purpose of this research is to evaluate the effects of teaching geometry which is differentiated based on the parallel curriculum for gifted/talented students on spatial ability. For this purpose; two units as “Polygons” and “Geometric Objects” of 5th grade mathematics book has been taken and formed a new differentiated geometry unit. In this study, pretest and posttest designs of experimental model were used. The study was conducted in Istanbul Science and Art Center, which offers differentiated program to those who are gifted and talented students after school, in the city of Istanbul and participants were 30 students being 15 of them are experimental group and the other 15 are control group. Experimental group students were underwent a differentiated program on “Polygons” and “Geometric Objects” whereas the other group continued their normal program without any differentiation. Spatial Ability Test developed by Talented Youth Center of John Hopkins University was used to collect data. Above mentioned test was presented to both groups of the study. Collected data was analyzed by Mann Whitney-U and Wilcoxon Signed Rank Test which is in the statistics program. It is presented as a result of the study that the program prepared for the gifted and talented students raised their spatial thinking ability.

Key words: teaching geometry, gifted individual, spatial thinking

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