Changing of Van Hiele Levels of Geometrical Thought fen Open Education Student Teachers upon Taking the Course on Geometric Concepts and its Methods of Teaching and Their Relationship to Achievement[*]

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Abstract

This study aimed to investigate changes in Van Hiele levels of geometrical thought for open education student teachers upon taking the course on (Geometric Concepts and its Methods of Teaching) and their relationship to achievement, in the College of Education at Damascus University.

A sample of (101) student teachers was chosen (males and females, Syrians and UNRWA) from the fourth – year open education student teachers.

The researcher used the Van Hiele Geometrical Thought Test (with $\alpha = 0.82$) in the Syrian environment, and an achievement test (with $\alpha = 0.89$).

The results showed positive changes in Van Hiele levels of geometrical thought in open education student teachers, after taking the course of (Geometric Concepts and its Methods of Teaching), where most student teachers advanced to higher levels of geometric thought.

In addition, the results showed a strong significant positive correlation (at level of significance = 0.01) between student teachers' scores on the Van Hiele geometrical thought test and their scores on the achievement test at groups of (whole group= 0.555, males= 0.542, females= 0.583, Syrians= 0.544, UNRWA= 0.611). These results could help teachers to use the two tests mutually.

The researcher presented several recommendations and suggestions, in light of the study findings.