The Mathematics Beliefs of Prospective Primary Teachers in Open Education and their Relationships to Achievement in the Courses of Arithmetic Operations and Geometric Concepts

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Abstract

This study aimed to investigate the mathematics beliefs of prospective primary teachers in the Open Education Program and their relationships to achievement in the courses of arithmetic operations and geometric concepts and their methods of teaching. A sample of (101) student teachers was chosen (49 Syrians and 52 (UNRWA)) from the fourth year of open education student teachers.

The Mathematics Beliefs Scale (MBS), which was established by Ibrahim (1990) and translated into Arabic by Ibrahim (2011), was used in the study. It is consisted of (42) items distributed on five components. In addition, two achievement tests were constructed and validated by the researcher for both the courses of arithmetic operations (α=0.91) and geometric concepts ($\alpha 2$ =0.89) and their methods of teaching. The results showed a strong significant correlation (at level of significance = 0.05) between student teachers' scores on the Mathematics Beliefs Scale (MBS)and their scores on the achievement test for groups of (whole group, Syrians, and (UNRWA)). The correlation values of (UNRWA) teacher students were relatively higher than the other values on important Factor (1). These results could help teachers (relatively) to use the two tests mutually. Several suggestions and recommendations were presented by the researcher in light of the results, such as applying the Mathematics Beliefs Scale (MBS) in other studies.#