

A Study on the Relations among Mathematics Attitudes, Self-efficacy and Achievement of the Ninth Grade Students in Chang

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ABSTRACT

The purpose of this study is to explore the relations among mathematics attitudes, mathematics self-efficacy and achievement of the Ninth Grade Students in Chang-hua County. The study is to analyze if there is difference among students' backgrounds in mathematics attitudes, mathematics self-efficacy and achievement, and to understand if mathematics attitudes and mathematics self-efficacy can predict mathematics achievement.

A total of 553 students were randomly selected from junior high schools in Chang-hua County. They were asked to fill a questionnaire which contained personal background, Mathematics attitudes Scale, and Mathematics self-efficacy Scale. The data were analyzed by using Frequency distribution, t-test, Pearson's correlation and Multiple Regression Analysis.

The results showed that there was no difference on mathematics attitudes between male and female students. However, there was a significant difference on both mathematics self-efficacy and achievement between male and female students. There were significant differences among different socioeconomic statuses and whether or not attending mathematics cram schools on mathematics attitudes, mathematics self-efficacy and mathematics achievement. Mathematics attitudes and mathematics self-efficacy were significantly related to mathematics achievement. Mathematics attitudes and mathematics self-efficacy could explain 39.8% for the mathematics achievement.

Keywords : mathematics attitudes、 mathematics self-efficacy、 mathematics achievement

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