EFFECTS OF USING ALGEBRA TILES IN TEACHING SPECIAL PRODUCTS AND FACTORING POLYNOMIALS ON STUDENTS' MATHEMATICAL ACHIEVEMENT AND ATTITUDES TOWARD MATHEMATICS

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ABSTRACT

This quasi experimental study was conducted to determine the effects of using algebra tiles in teaching Special Products and Factoring Polynomials on student's mathematical achievement and attitudes toward mathematics. The study involved two intact classes of first year students of Bacoor National High School – Molino Annex during the school year 2011-2012. The pretest results were compared and found to be significant at 0.05 level suggesting that the control group had higher prior knowledge than the experimental group. The posttest results were compared using ANCOVA and found to be not significant at 0.05 level. Significant difference was found in the pretest and posttest of both groups which means that learning occurred among the respondents. The results of the pretest and posttest of Attitudes Toward Mathematics Inventory showed that the experimental group maintained positive attitudes but there was a notable increase in self confidence and enjoyment as their mean gains were found significant. There was a change on the attitudes of the students in the control group, but the decline of scores was not significant. The results of the posttest achievement and Attitudes Toward Mathematics Inventory of the two groups were compared and found to be not significant. The researcher concluded that the traditional instruction and instruction using algebra tiles were both effective in teaching Special Products and Factoring. The use of algebra tiles, however, led to more favorable attitudes toward mathematics specifically in promoting self confidence and enjoyment.

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