

Abstract:

Path Analysis of the Relationships between Achievement Goals Orientations (model 3X2), Statistics self-efficacy, Statistics Anxiety and Academic Achievement in Statistics among Special Diploma Students in Education

The present study aimed to examine the direct and indirect effects of Achievement Goals Orientations (model 3X2), Statistics Self-Efficacy, and Statistics Anxiety in academic achievement of statistics among Special Diploma Students in Education through modeling the causal relationships between the study variables using Path Analysis. A sample of 250 students was tested in the pilot study, and a convenience sample of 170 students of Special Diploma Students in Education was recruited in the main study. In order to achieve the study objectives, three measures were applied: Achievement Goals Orientation (3X2 model) scale, Statistic Self-Efficacy scale, Statistic Anxiety scale in group sessions. The data was analyzed using a number of parametric statistical techniques (Pearson correlation coefficient, confirmatory factor analysis, path analysis), as well as descriptive statistics.

The research results indicated that there are statistically significant correlations between the variables of the study. Path analysis using the Amos 23 indicated that the hypothesized path model had a good fit to the data; approximately 100% according to the fit indices. A statistically significant positive direct effect was found for both statistics self-efficacy and Achievement Goals Orientation (Task-Approach, Self-Approach, Other-Approach) on the academic Achievement in statistics. As well, direct negative effects were statistically significant for statistics Anxiety and Achievement Goals Orientation (Task-Avoidance, Self-Avoidance, Other-Avoidance) on the Academic Achievement in statistics and statistics self-efficacy. In addition, the results indicated that there are indirect effects for Self-Approach on statistics self-efficacy through statistics Anxiety. Finally, the indirect effect of Achievement Goals Orientation on the Academic Achievement in statistics through statistics self-efficacy and statistics Anxiety. The findings of this study have a number of important implications for future practice in the Academic Achievement in Statistics.

Keywords: Statistics Anxiety, statistics self-efficacy, Achievement Goals Orientations(3x2), Academic Achievement in statistics.