

The Effects of an Instruction Using Problem Solving Strategies in Mathematics on the Teaching Anxiety Level of the Pre-Service Primary School Teachers

Abstract

The purpose of this study was to investigate the comparison of an instruction using problem solving strategies in mathematics methods course with an instruction using a traditional textbook. There were a total of 70 pre-service primary school teachers involved in the study. The participants were divided into two groups, experimental and control groups. Thirty six of them were included in the experimental and thirty four of them were included in the control group. The research was conducted in a mathematics methods course. While the participants in the experimental group were exposed to the problem solving strategies during the instruction, the others in the control group followed the traditional instruction. In the collection of the data, the researcher employed the Mathematics Teaching Anxiety Scale (MATAS) including twenty three items. This instrument was administered to the participants before and after seven weeks of instruction. After the collection of the data, the researcher used the independent samples t-test and ANCOVA to analyze the quantitative data. The study showed that there were statistically significant differences regarding the teaching anxiety level between the control and experimental groups favouring the experimental group. In other words, the participants who were exposed to the problem solving strategies had a lower teaching anxiety level in mathematics than the others.

Keywords: *mathematics teaching anxiety; pre-service teachers; mathematics; problem solving strategies.*