



PROBLEM SOLVING, CREATIVITY AND CONSTRUCTIVIST-BASED TEACHING PRACTICE OF PRESERVICE MATHEMATICS TEACHERS

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Abstract

The purpose of the present sequential explanatory mixed method design study is to examine the connection of constructivist-based teaching practice between creativity and problem solving skills of preservice mathematics teachers (PMT). Also, thoughts of the participants about these relationships were examined through the semi-structured interviews. Totally 120 PMT participated who enrolled in an undergraduate program of elementary teacher education in eastern part of Turkey. The data were collected through three stages. In the first stage, all participants designed their micro-teachings and implemented. In the second stage, PMT were conducted the scales related to problem solving and creativity. In the last stage, ten participants were selected randomly and interviewed. The result of the present study showed that, constructivist-based teaching practice levels of PMT was statistically significantly correlated with problem solving in negative way and creativity ability in positive way. Moreover, findings based on semi-structured interviews confirmed these results.

Key words: Problem solving, creativity, constructivist-based teaching practice.