

Relationships Between and among Pre-service Mathematics Teachers' Conceptions, Efficacy Beliefs and Anxiety

Andile Mji^{1*} and Abayomi A. Arigbabu^{2}**

^{}Tshwane University of Technology, Pretoria, South Africa*

*^{**}Tai Solarin University of Education, Ogun State, Nigeria*

KEYWORDS Mathematics Teaching Efficacy Beliefs. Conceptions of Mathematics. Mathematics Anxiety. Nigerian Context. Pre-service Teachers

ABSTRACT The purpose of this research study was to examine the relationships between and among the conceptions of mathematics, mathematics teaching efficacy beliefs and mathematics anxiety of pre-service students with mathematics as their major subject (mathematics majors). Participants were 130 mathematics majors enrolled in a college of education in South West Nigeria. Internal consistency reliability coefficients from the administered self-report measure were acceptable for all scales. The analyzed results led to the following conclusions: (a) fragmented conceptions had positive associations with personal mathematics teaching efficacy, mathematics teaching outcome expectancy, mathematics evaluation anxiety and learning mathematics anxiety; (b) cohesive conceptions were positively associated with mathematics teaching efficacy; (c) positive associations were established between mathematics teaching efficacy and mathematics anxiety; (d) teaching efficacy and outcome expectancy were predictors of the conceptions of mathematics. Implications of these findings for pre-service mathematics majors are discussed. It is also recommended that educators of pre-service teachers should focus on motivating them and stress the usefulness of mathematics.