

PRE-SERVICE PRIMARY MATHEMATIC TEACHERS' SKILLS OF USING THE LANGUAGE OF MATHEMATICS IN THE CONTEXT OF QUADRILATERALS

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ABSTRACT

Mathematics is defined as a discipline which has a specific language that encompasses a variety of symbols, figures, and terms and which depends on the relationship among these properties. Effective learning and teaching of mathematics considerably depends on the accurate use of language. In line with these, this study aims to explore pre-service primary mathematics teachers' skills of defining and expressing a variety of concepts and properties in the context of quadrilaterals using the language of mathematics. Another objective is to determine pre-service mathematics teachers' opinions on using language in mathematics teaching and explore the relationship between their opinions and their skills of using the language of mathematics. For this aim, data collection tools include the "Language in Mathematics Teaching Scale" and a test which involves six open-ended questions that cover the sub-dimensions of defining a concept, expressing conceptual properties with a verbal and a symbolic language, and using symbols to represent the properties of shapes. A variety of categories were created in line with the fourth grade pre-service primary teachers' responses to the open-ended questions. Percentage and frequency values were therefore determined and the data obtained from the scale were interpreted with the help of the SPSS programme. The findings were discussed in line with the literature and some suggestions were presented.

Keywords: Language of mathematics, quadrilaterals, pre-service teacher.