

Teachers' Mathematical Pedagogical Content Knowledge: Some Trends in Search of Adequate Knowledge for Effective Teaching

Luckson Muganyizi Kaino¹ and Shadrack Moalosi²

¹University of South Africa (UNISA) South Africa

²University of Witwatersrand South Africa

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ABSTRACT In this paper, as a case study, the teachers' Pedagogical Content Knowledge (PCK) was determined by analyzing how teachers taught a topic on mathematics and their responses to the questions on the same topic. Data was collected using face-to-face interview schedules with short-answer and multiple-choice type items. A one sample t-test was used to analyze the collected data. The items that were open ended were compiled to generate quantitative data which were then subjected to quantitative analysis. The findings showed that many teachers had no adequate PCK to understand well the characteristics of the problems tackled, solutions obtained by different methods, their interpretation and lack of understanding of students' problems in learning. It was concluded that teachers needed improvement in their mathematical PCK for effective teaching of the subject.