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Exploring the Pedagogical Content Knowledge for Teaching Probability in Middle School: A South African Case Study

Deonarain Brijlall

Department of Mathematics, Durban University of Technology, South Africa
E-mail: deonarainb@dut.ac.za

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ABSTRACT This paper reports on an exploration into in-service teachers' pedagogical content knowledge required for the delivery of lessons in probability. The section on probability is taught in Mathematical Literacy to the middle school learners in South Africa. As a theoretical framework the work initiated in the nineteen eighties was sought. This paper adopted a refined framework into domains of pedagogical knowledge. The four domains are: *Common Content Knowledge; Specialised Content Knowledge; Knowledge of Content and Students* as well as *Knowledge of Content and Teaching* which are defined and applied to show their necessity in a teaching situation. Examples of tasks from an open ended questionnaire were discussed and identification of the pedagogical content knowledge on probability was made. Teachers' written responses were collected and analyzed to verify or refute suggested strands of knowledge provided earlier. The written responses were from in-service teachers (n = 86) who were studying towards an Advanced Certificate in Education (an upgrading qualification) at a South African university.