

Exploring Mathematics Students' Understanding of Language of Estimative Probability in Relation to the Probability Scale

Mutodi Paul¹ and Ngirande Hlanganipai²

*¹Department of Maths, Science and Technology, ²Department of Business Management, University of Limpopo(Turfloop Campus), Private Bag X1106, Sovenga, 0727, South Africa
E-mail: ¹<paul.mutodi@ul.ac.za>, ²<hlanganipai.ngirande@ul.ac.za>*

KEYWORDS Probability. Language. Estimative Probability. Probability Scale

ABSTRACT This paper sought to investigate students' difficulties in understanding probability language and ideas as well as their meanings in relation to the probability scale. The study explores students' interpretation of some of the words that are commonly used when teaching and learning probability. The sample for the study consists of 67 randomly selected grade 12 secondary school students drawn from multi-lingual schools in Limpopo Province, South Africa. A self-constructed questionnaire was administered to assess students' understanding of probability language. Descriptive statistics were used to analyse the data. The results of the study show that students' informal meanings for probability language were distant from conventional meanings. In addition, there was a variety of meanings associated with each of the selected words. An analysis of the students' meanings and a possible explanation to their thinking seem to be embedded in their first languages. The paper highlights the importance of having an awareness of students' informal meanings, and also stresses the importance of language in learning probability.