Abstract

South African learners’ challenge in reaching academic heights in mathematics is widely documented. The country’s revision of the Mathematics Curriculum which introduced topics like Probability and fundamental counting principles as compulsory topic in the National Senior Certificate (NSC), South Africa had prior anticipation of a host of challenges towards its implementation. Three years down the line, it has been detected that many teachers experience constrain when they teach the topic, making it difficult for learners to grasp the concepts and effectively solve problems in the topic. The study aims at investigating the achievement levels of grade 12 learners in probability and fundamental counting principles. Participants of the study included four hundred and ninety grade 12 learners from seven different schools in Nongoma educational circuit, South Africa. Data was collected by means of an achievement test and analyzed by the aid of SPSS 23. The study followed the survey research strategy and used the different concepts taught in the topic as a framework of analysis. The findings suggest that learners in this study excelled the most in the use of Venn diagrams to solve probability problem. The result shows that learners’ performance in the use of contingency tables to solve
probability problems and fundamental counting principles was below expectation. The study had several implications regarding learners' strength and weakness in the topic thus recommendations were made to assist all stake holders on ways of enhancing learners conceptual understating of the topic.

References


Grade 12 Learners’ Conceptual Knowledge in Probability and Counting Principles


Index Terms

Computer Science

Information Sciences

Keywords

Bloom’s taxonomy, concepts, grade 12 learners, probability, mathematics, achievements, Matric.