

Influence of Mathematical Language on Achievement in Mathematics by Secondary School Students in Kenya

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Abstract

Language is a system of communication, which is either spoken or encoded in written or signed form; its fluency aids an individual in logical thinking. The unique linguistic structure of mathematics makes the learning of mathematics similar to learning of a foreign language. Thus the level of understanding of mathematical language affects the level of communication of mathematical ideas. Recent trends in Kenya show that the achievement in mathematics among secondary school students in Kenya is below average. This effectively calls for identification of factors that can enhance the understanding of mathematical concepts for higher achievement. This study was aimed at determining how the mathematical language influences achievement in the subject by secondary school students in Kenya. A survey was carried out on a sample of 661 secondary school students and 71 secondary school mathematics teachers using structured questionnaires and three sets of mathematics tests. The results show that achievement in mathematics is highly related to students' understanding of mathematical language. Students make mistakes when solving mathematics problems due to lack of understanding of mathematical language. Thus mathematical language plays a major role in the understanding and achievement in mathematics.

Keywords: Achievement, Influence, Mathematical language, Structures, Symbols, Terms

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