Effectiveness of Differentiated Instruction on Secondary School Students Achievement in Mathematics

Mercy Wanja Muthomi and Zachariah Kariuki Mbugua

Abstract

Mathematics is a fundamental human activity- a way of making sense of the world. Achievement in mathematics has caused deep concern in many countries over the years. In Kenya, mathematics competence is necessary for entry into science, technology, engineering and mathematics disciplines in institution of higher learning. The purpose of the study was to investigate the effectiveness of Differentiated instruction on students' achievement in mathematics in secondary schools in Meru County in Kenya. The study sought to determine whether there was a difference in achievement when students were instructed using Differentiated Instruction approach. The study employed the Quasi-experimental design and in particular Solomon Four-Group design. The research was carried out in 8 provincial secondary schools in Meru County, Kenya. The subjects were form three students and the sample size was 374 students. Simple random sampling technique was used to select the participating schools. Mathematics Achievement Test provided the needed data. The hypothesis was tested at $\alpha = 0.05$ level of significance. Results indicated that Differentiated Instruction significantly improved the students' achievement in mathematics which may lead curriculum developers to include Differentiated Instruction in approaches to teaching mathematics to improve achievement in the subject.

Keywords: Achievement, Differentiated instruction and Conventional instructional

Full text link: https://karuspace.karu.ac.ke/handle/20.500.12092/1684