

Errors and Misconceptions for Students with Mathematical Learning Disabilities: Quest for Suitable Teaching Strategy

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Abstract : The study investigates the efficacy of Special Mathematics Teaching Strategy (SMTS) as against Conventional Mathematics Teaching Strategy (CMTS) in teaching students identified with Mathematics Learning Disabilities (MLDs) - dyslexia, Down syndrome, dyscalculia, etc., in some junior secondary schools around Sokoto metropolis. Errors and misconceptions in learning Mathematics displayed by these categories of students were observed. Theory of variation was used to provide a prism for viewing the MLDs from theoretical perspective. Experimental research design was used, involving pretest-posttest non-randomized approach. Pretest was administered to the intact class taught using CMTS before the class was split into experimental and control groups. Experimental group of the students - those identified with MLDs was taught with SMTS and later mean performance of students taught using the two strategies was sought to find if there was any significant difference between the performances of the students. A null hypothesis was tested at $\alpha = 0.05$ level of significance. T-test was used to establish the difference between the mean performances of the two tests. The null hypothesis was rejected. Hence, the performance of students, identified with MLDs taught using SMTS was found to be better than their earlier performance taught using CMTS. The study, therefore, recommends amongst other things that teachers should be encouraged to use SMTS in teaching mathematics especially when students are found to be suffering from MLDs and exhibiting errors and misconceptions in the process of learning mathematics.

Keywords : disabilities, errors, learning, misconceptions

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