

INVESTIGATING STUDENTS' LEARNING STYLES AND MEMORY IMPROVEMENT STRATEGIES FOR EFFECTIVE LEARNING OF MATHEMATICS AND SCIENCE AT TERTIARY LEVEL

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ABSTRACT

The study investigates Learning Style and Memory Improvement Strategies for effective learning of mathematics and sciences at higher institutions. The sample for the study consists of 172 students which were randomly selected from the two colleges of education in Katsina state of Nigeria. Three validated instruments used for data collection were Student Learning Style Rating Scale (SLSRS), Student Memory improvement strategy Inventory (SMISI) and Mathematics and Science Achievement Test (MSAT) with the following reliability coefficients respectively (0.75, 0.83 and 0.77). The study findings indicate that (i) LS of both mathematics and science students cannot substantially differentiate their academic performance. This finding is not statistically significant $F(4,107) = 0.524$, $F(4,55) = 1.121$ at $p > 0.05$ (ii) Though low positive relationship exists between the MIS and performance of both mathematics and science students. This relationship is not significant (iii) Performance of both mathematics and science students is not significantly influenced by their MIS ($R^2 = 0.02, 0.01$; $p > 0.05$.) (iv) Gender cannot be used to differentiate their performance ($t = 0.661, -0.079$), MIS rating ($t = 0.948, -0.110$) at $p > 0.05$ and predicts their LS ($\chi^2 = 4.688, 4.238$, $p > 0.05$) respectively. Based on the findings, we suggest that each student should endeavor to identify and use his/her LS effectively.

Keywords: Learning style, Memory Improvement Strategies, Effective Learning, and Achievement.