

OP 05 - Evaluation of the Effectiveness of Learning Strategies in Mathematics to the Academic Performance of Senior Secondary Students in Galle Municipal Council Area in Sri Lanka

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Background: Learning is a complex cognitive process. It can be improved with different techniques. Learning strategies are very efficient in improving learning and academic performance. There are many different learning strategies and the effect of different learning strategies differ on the individual, subjects and many other confounding factors.

Objectives: The objective of this research is to identify the effectiveness of learning strategies in mathematics to the academic performance of senior secondary students in Galle Municipal Council Area in Sri Lanka.

Methodology: A descriptive cross-sectional study was conducted among 352 senior secondary (grade 11) students who were preparing for the G.C.E. ordinary level examination from three randomly selected schools within the Galle municipal council area. The correlation between the academic performance in the term test and the score obtained from the modified version of mathematics motivated learning strategies (self-administered) questionnaire was analyzed.

Results and conclusions: Significant positive correlation was seen only between academic performance and Meta cognitive learning strategies ($p=0.015$) out of four main categories. Further analysis revealed that there is a significant positive correlation between academic performance and each of the following factors; rehearsal ($p=0.027$), critical thinking (0.008) and help seeking ($p=0.045$). The results of this study studies show that leaning strategies have a significant effect on the academic performance of students. In addition, some specific learning strategies have variable effects on learning. Therefore, steps should be taken to improve the teaching and learning process by considering the effects of specific learning strategies to the academic performance of students.

Keywords: Academic performance, learning strategies, mathematics