

A STUDY ON FACTORS INFLUENCING STUDENTS' PERFORMANCE IN AN UNDERGRADUATE PURE MATHEMATICS COURSE "REAL ANALYSIS"

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Students' performance in a Pure Mathematics course "Real Analysis" is very poor compared to other courses offered to the Physical Science stream students from the Faculty of Science at the first year of study. Around fifty percent of students are failing in this course every year. The purpose of this study is to identify the factors that are affecting the student's performance in "Real Analysis" and also suggest ways that can be adopted by the Department of Mathematics to improve the performance of students.

A set of factors such as attendance, student's attitudes, teaching methods, student's attribution, student's self concept, external motivation, learning environment and performance in Combined Mathematics in the Advanced Level were administered to the students. All the Physical Science stream students currently following the first, second and third year of studies in one of the universities in Sri Lanka offered "Real Analysis" in their first year were taken for this study. Statistical techniques "correlation" and "multiple regression analysis" were performed to analyze the data.

The results showed that three factors attendance, teaching methods and student's self concept have high influence on students' performance in Real Analysis. It is worth mentioning that external motivation and learning environment are not significant. Even though the other factors are found to be significant, they are negligible. The number of female students offering Pure Mathematics is very low compared to male students but their performance in Real Analysis is much better than male students.

Key words: Attitude, Attribution, Self-concept, Motivation, Student Performance.

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