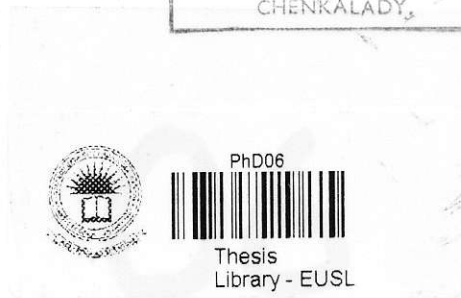
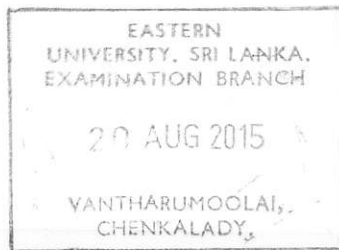




**A Study of Socio-Economic Status and Educational Aspiration of  
Secondary School Students in Relation to their Achievement of  
Science Subject in the Batticaloa District**

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## Executive Summary

Understanding the impact of socio-economic status of the family and student's aspiration on their achievement of science subject is important in determining effective and valid performance of science education for secondary schools in Sri Lanka. The Objective of this study is to find out the correlation of Socio Economic Status (SES) with Educational Aspiration (EA) and Academic achievement (AA) of Science subject in secondary school students in urban and Semi-urban area in the Batticaloa district. Determining the correlation between these dependent and independent variables is important for all academics to understand, so that all students can achieve to their academic potential. Finding the correlation between these variables can assist educators in determining instructional strategies that best fit each individual student.

In this study was a design survey method was used and directed at the population of senior secondary students in the Batticaloa district of Eastern Province in Sri Lanka. Sixteen school of 1AB, 1C, Type 2 and Type 3 grades were selected from this research area. These schools were stratified into urban (7) and semi-urban (9) schools. 640 students who studied in grade 9 and 13 science and mathematics stream were selected at random. 40 samples was selected grade 13 selected from each 1AB school, 30 samples in grade 9 were selected from all school. The average age of the students is 13.8 (early adolescent) and 17.9 (late adolescent). The research instruments, questionnaire format titled Student's Questionnaire; it's to measure the student's SES and their aspiration with teacher responses about the student's attitude to the science subject. Grades gained of Academic Achievement (AA) at the final examination of grade 9 and 13 in zonal level. Reliability was checked by test – retest after three weeks for the SES and EA. The very high correlations obtained reveal the reliability of the instruments of measurement. Its split-half reliability coefficient of correlation yields are 0.83, 0.86, 0.92 and 0.94 for SES, Academic Motivation (AM), Self Concept (SC) and Students Attitude towards Education (SAE) respectively.

Seventeen null hypotheses were postulated from specific objectives and tested at 0.05 level of significant to determine how the impact of socio-economic status and educational aspiration correlates on students' achievement in science. The data was collected through questionnaire

related to the variable. In addition the marks obtained by the students' of the final examination of grade 9 science subject and grade 13 biology/chemistry from record maintained at school level. Qualitative and quantitative method (mixed method) was used to analysis. Statistical Package of Social Science (SPSS) which include Chi-Square test, t – test and Pearson Product Moment correlation coefficient was used in analyses.

The result revealed that, there is a significant relationship between SES and achievement of science subject among the early adolescent students only when SES is high. At the same time there are no relationships between SES and achievement of science subject among the late adolescents. Only when the SES of the parents is high, there is a significant relationship between high SES of the parents and students' EA. There is only a significant relationship between the sub-variables of EA among grade 9 students and their science achievement. At the same time, there is no relationship between low and high levels of EA and grade 9 and 13 achievement of science subject. There are no relationships between the EA of the early adolescence and the late adolescence. While looking at the relationship between students' academic achievement of science subject and their SES and EA, EA has stronger relationship than SES with the academic achievement of science subject. There is a close relationship between the achievement of science subject in grade 9 and their EA, but there is no relationship between the achievement of science subject in grade 13 and EA.

The correlation between the achievement of science subject in grade 9 male students and SES and their EA is stronger than the grade 9 female students and the relationship also significant. There is no such sign in grade 13 students. There is a stronger relationship between SES and AA in grade 9 than grade 13. There is a close relationship between sub-variables of SES and the achievement of science subject in grade 9 students, but at the same time, there is no such relationship in grade 13 students. There is a significant relationship between AM, SC, SAE, and composite EA and the achievement of science subject in grade 9. There is no such sign in grade 13 students. There is a close relationship between sub-variables of SES and EA of the students.

This study provided theoretical and empirical evidence to support socio-economic factors and educational aspiration of the students as being associated with achievement of science subject of

early and late adolescents. This research findings have been explored the socio-economic status and educational aspiration of senior secondary school students and current nature of the research areas also gives different levels of variables in the secondary school students. Further, this study highlights that the factors such as Family interest, aspirations and attitudes of parents and family status and SES should be taken into account in measuring students' academic achievement. It is clearly evident from the study that family encouragement as well as the family interest in schools and classrooms affects children's academic achievement, aspiration and attitudes even after student's ability and family SES are taken into account.

Chapter One

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