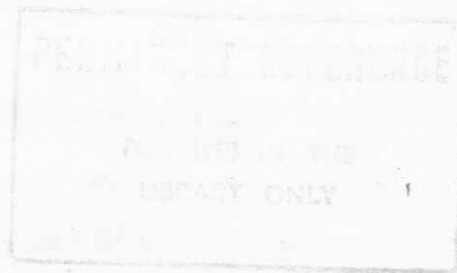


UNIVERSITY OF CEYLON

Peradeniya Campus

STUDENT ACHIEVEMENT IN CHEMISTRY IN
SELECTED SCHOOLS IN THE KANDY AREA
AT THE G.C.E. (O.L.) AND ITS RELATION
TO PARENTAL AND STUDENT VARIABLES



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ABSTRACT

The relationship between student achievement in chemistry at the G.C.E.(O.L.), (a) socio-economic status of parents, (b) study habits of students, (c) academic motivation of students and (d) attitude of students towards (i) the subject (ii) the subject teacher (iii) the school, were studied using a sample of two hundred and eighty two children (one hundred and fifty six boys and one hundred and twenty six girls) from seven schools in the Kandy area, drawn by stratified random selection procedures. The sample was, however, limited to Sinhala medium candidates in Government schools, sitting the examination for the first time, due to practical difficulties. A questionnaire, two Likert-type rating scales, and three semantic differential scales were used to obtain scores on the six respective variables.

Two $3 \times 3 \times 3$ analyses of variance, the first with socio-economic status, study habits and academic motivation as independent variables and G.C.E. (O.L.) chemistry scores as the criterion, and the second with now the three attitude variables as independent variables were carried out, to test hypotheses of 'no significant relationship' between each of these variables and achievement in chemistry. The results indicated very significant relationships between achievement in chemistry and

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(i) socio-economic status of parents (ii) academic motivation of students and (iii) attitude of students towards the subject, chemistry. The interaction 'socio-economic status x study habits x academic motivation' was also found to be very significantly related to achievement in chemistry. The variables study habits, attitude towards the subject teacher and attitude towards school were not significantly related.

These findings were interpreted and conclusions drawn bearing in mind the limitations of the study.

Some implications of the findings of the study for education have been considered. Some related problems have been suggested for further research.