

ABSTRACT

This study attempted to probe the effects of mathematics on achievement in Chemistry at A'Level. The sample consisted of eighty-five students from Government and Grant-aided schools in Jamaica. These students were all in their Upper Sixth year, at the end of which year they sat for the Cambridge Advanced Level Examinations. Of the eighty-five students, thirty-nine were doing A'Level Chemistry and A'Level Mathematics, and the remaining forty-six were doing A'Level Chemistry but not A'Level Mathematics.

The independent variables used in the investigation were A'Level Mathematics, Additional Mathematics, O'Level Mathematics, two Differential Aptitude tests and a test containing items in mathematics prepared by the author. The dependent variable was Advanced Level Chemistry. Scores for each subject on the variables just mentioned were collected. This data was used among other things to calculate zero-order coefficients, multiple correlation coefficients, t-values for the difference between the two sub-groups on the variables, and U-values using the Mann-Whitney U-test to tell whether the bulk of the cases in one group lay significantly above or below the bulk of the cases in the other group.

Although the results indicated that the most important predictor of success in A'Level Chemistry was performance in O'Level

Chemistry, nevertheless it suggested that mathematical skills contributed to some extent. It can be said therefore that the results of the study suggest that although mathematical competence is not the sine quo non of achievement in Chemistry at A'Level, it is apparently associated with achievement.