

## ABSTRACT

Relationship of Cognitive and Personality Variables  
to Academic Achievement at Grade 11.

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This study investigated the interrelationships between selected cognitive variables (abstract reasoning, cognitive style, spatial ability, verbal reasoning) and personality variables (academic motivation, locus of control, personal identity, school anxiety) and their relationships with performance in mathematics, English, geography, history and physics in the Caribbean Examinations Council (General Proficiency) and/or General Certificate of Education (Ordinary Level) examinations.

The sample comprised 269 students (139 Females, 130 males) in six co-educational high schools in Jamaica.

For the purpose of data collection Differential Aptitude Tests (DAT) published by the Psychological Corporation, New York were employed to measure Abstract Reasoning, Spatial Ability and Verbal Reasoning. Cognitive Style was measured by the Group Embedded Figures Test (GEFT) developed by Oltman, et al (1971).

The personality variables were measured using instruments developed by previous local researchers, and

Academic Motivation questionnaire constructed by the present researcher.

The data were analyzed by various statistical techniques, including Pearson's correlation, Stepwise Multiple Regression, Factor Analysis, Student's 't' statistic and figural representations.

The main findings were:

1. Verbal Reasoning emerged as an outstanding independent variable. It was the only independent variable which had significant positive relationships with most of the independent variables and the criterion variables among the three sample groups (total sample, females, males). It emerged as the best predictor variable for the criterion variables, except for geography among females and mathematics among males.
2. Spatial Ability featured as the best predictor variable for geography among females and for mathematics among males.
3. School Anxiety showed widespread significant negative associations with the variables among the three sample groups. It featured to a lesser extent among males than females.
4. The non-verbal cognitive variables (abstract reasoning, cognitive style, spatial ability) loaded together on factor 1 among the three sample groups.

5. Significant differences according to gender, in favour of males, were observed among mean scores on seven variables - (abstract reasoning, cognitive style, spatial ability, school anxiety, mathematics, geography and physics).