

ABSTRACT

This investigation examined the effect of cognitive style and other related cognitive, physical and social variables on achievement in mathematics.

Tests of field independence, conceptual style preference, achievement in mathematics, mental ability, achievement in reading and a questionnaire on personal data were administered to 206 boys and 212 girls from grade 6 in five elementary schools in Kingston, Jamaica. The criterion was achievement in mathematics. The variables considered were field dependence, conceptual style preference, mental ability, reading achievement, sex, occupational level, family size, father presence and birth order.

Stepwise regression analysis yielded mental ability, achievement in reading and family size as the best predictors, among the variables considered, of achievement in mathematics.

The following variables were found to be significantly related to achievement in mathematics: field dependence, conceptual style preference, mental ability, reading achievement, family size, sex, occupational level and birth order.

The following variables significantly correlated with cognitive style (both field dependence and conceptual style

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preference): mental ability, reading achievement, and occupational level.

When mental ability was held constant the correlation between cognitive style and mathematics achievement became non-significant. However, when either reading achievement or occupational level was held constant the correlation between cognitive style and mathematics achievement remained significant.