

ABSTRACT

Error Analysis in Mathematics:
Its Potential For Improving the Mathematical
Performance of Eleven-Year-Olds in Barbados

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The purpose of this study was to investigate links between (1) the types of errors made by eleven-year-old students in the 1993 B.S.S.E.E. Mathematics test and the types of errors made by eleven-year-olds in the classroom; (2) error analysis followed by remediation and mathematical performance; and (3) gender and mathematical performance. The investigation was carried out in four primary schools in Barbados.

The data were collected from the 1993 Barbados Secondary School Entrance Examination (B.S.S.E.E.) Mathematics Test and a Teachers' Questionnaire. A sample of 179 eleven-year-old students and 34 teachers from the four primary schools was selected. From the Mathematics Test 36 items were selected and analysed according to type of error and gender performance in each item. Percentages of wrong answers were calculated for each item according to gender. A content analysis and frequency and percentage of responses were carried out on the questionnaire.

The results pointed to positive links between (1) types of errors made by eleven-year-old students in the 1993 B.S.S.E.E. Mathematics Test and the types of errors made by eleven-year-olds in the classroom; (2) error analysis followed by remediation and mathematical performance; and (3) gender and mathematical performance.

Based on these outcomes which are similar to previous findings, it may be concluded that teachers must make every effort to employ error analysis followed by remediation on a regular basis to improve mathematical performance of the eleven-year-old students both in the classroom and in the Barbados Secondary School Entrance Examination and must be cognisant of gender differences in mathematical performance on some topics in mathematics.