

Comparison of the Effectiveness of Programmed Instruction and Textbook Instruction in Learning Secondary School Mathematics.

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Abstract:

This study compared the effectiveness of Programmed Branching Instruction (B.P.I) and Textbook Instruction (T.I) in learning mathematics. The subjects were three hundred (300) form III students selected from ten secondary schools in Ondo State. They were stratified into two groups of average and above average students, according to their performances in Ondo State Mathematics achievement Test in 1984. The instruments used were (i) a 25-multiple choice item test, (ii) a T.I. material and (iii) a B.P.I material. While class teachers participated in distributing learning materials and administering tests, the B.P.I. and T.I. materials were used by the students independent of their class teachers.

A t-test statistic was used to analyse the data collected and it was found that there were no significant differences in background knowledge of the subjects. The students who studied on their own with B.P.I. performed better in Mathematics than those who do so with T.I. Also, the above average students that used B.P.I. to study performed better than the average ones.

The result revealed that the performances of boys are higher than those of girls in Mathematics when they both use B.P.I. to study mathematics. The student who is average in mathematics that used B.P.I. to study did not perform better than their counterparts who used T.I. The above average students, who used B.P.I. to study, however performed better than their counterparts that use T.I. The results of the study suggest that could be a more effective method of learning Mathematics, when student have to learn on their own.

Keywords: Programmed Branching Instruction (B.P.I)/ Textbook Instruction (T.I)

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