

The Effect of A Computerized Instructional Programme on Changing the Alternative Concepts in Science among Second Intermediate Grade Students in the Kingdom of Saudi Arabia

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Abstract

This study aimed at investigating the effect of a computerized programme on changing alternative concepts in science among second intermediate grade students in the Kingdom of Saudi Arabia in “motion and sound units”. A purposeful sample of (90) students was selected and students were randomly assigned to two groups: the experimental group which was taught “motion and sound” by the computerized programme, and the control group which was taught the same two units by the traditional method. To achieve the purposes of the study, the researchers developed a 31 – item test to explore the alternative concepts among the subjects of the study. Content validity of the test was established through a specialized group of referees. Reliability was established by Kuder-Richardson T Coefficient which was (0.69). Frequencies and percentages were used to represent the spread of alternative concepts. Also, Chi square test was used to answer the questions of the study. The study

revealed the following results: There were many widely spread alternative concepts amongst learners in both groups before and after teaching in the three levels of achievement. There were statistically significant differences in percentages of alternative concepts in motion and sound –as measured by the post-test among second intermediate grade students in the two groups in favour of students of the experimental group, as the number of those alternative concepts significantly decreased among students of the experimental group. Based on those results, it was recommended that computers be utilized in teaching science as a means of enhancing learning.

Key words: Computerized Instructional Programme, Alternative Concepts, Kingdom of Saudi Arabia, Science.