ABSTRACT

Effects of Practical Work and Lecture Methods
On Fourth Graders' Attitudes to Science and Science Performance

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This study investigated the effects of two sets of instructional strategies on the attitudes towards science and the understanding of science concepts in relation to gender of Jamaican fourth graders. The study engaged 180 subjects; 92 males and 88 females from two urban area primary schools. Two instruments, namely: an understanding of machines and water test (UMWT) set by the researcher, and an attitude to science questionnaire (ATSQ) adopted from Soyibo and Pinnock (1998) were used for collecting data.

The results indicated that (a) there was no significant difference in the experimental and control group students’ pre-test and post-test attitudes to science; (b) the experimental group students significantly outscored the control group students in the UMWT post-test; (c) there was no significant gender difference in the students’ UMWT post-test, but there was a significant difference based on their treatment and attitudes to science in favour of the experimental students and (d) there was positive, significant but weak relationship among the students’ gender treatment and their post-test science performance; but the relationship between their post-test attitudes to science and post-test science performance was positive, statistically, significant and moderately high.

Keywords: Practical work, lecture methods, science attitude and performance