

Abstract

This study investigated the effects of three sets of instructional strategies on selected Jamaican 9th graders' attitudes towards chemistry and the knowledge of physical and chemical changes and the relationship among their gender, treatment, socioeconomic background and their posttest performance on physical and chemical changes. The sample consisted of 42 males and 65 females from 3 traditional high schools in St. Andrew. Forty eight of the students were from high socioeconomic backgrounds, while 59 were from low socioeconomic backgrounds. A partially adopted attitudes towards chemistry questionnaire (SACQ) and a knowledge of physical and chemical changes test (PCCT) were used to collect data. Results indicated that (a) the posttest attitudes towards chemistry of the experimental group students LHEG (taught with lecture hands-on practical activities in small groups) were similar to those of their peers in the two control groups (the lecture/teacher demonstration group, (LTDG), and the lecture method group, (LMG)); (b) the experimental students (LHEG) and the LTDG students significantly outscored the LMG students on the PCCT in the posttest; (c) there was no significant relationship between the experimental group

chemistry and their posttest performance on the physical changes test items; there was a statistically significant but weak relationship between their treatment and posttest scores on the physical changes items, and (d) there was no significant relationship between the experimental group students' gender, treatment, and attitudes towards chemistry and their posttest performance on the chemical changes test items; and there was a statistically significant but weak relationship between their socioeconomic background and their posttest scores on chemical changes test items.