Abstract

This study was designed to find out if (a) the students' attitudes to physics were favourable or not; (b) their level of performance on the particulate nature of matter test was satisfactory or not, (c) there were any significant differences in the students' performance on the concept of the particulate nature of matter test (PNMT), based on differences in their gender, attitudes to physics, school type, school location and socio-economic background (SEB) and (d) there were significant relationships among their five independent variables and their performance on the PNMT. The sample consisted of 400 Grade 10 physics students (200 boys , 200 girls) chosen randomly from 12 schools made up of four male traditional high schools, four female traditional high schools and four co-educational traditional high schools. The parishes sampled were St. Andrew, Kingston, St. Elizabeth, St. James, Manchester and Portland. Two instruments were used to collect the study's data. The results indicated that (a) the students had favourable attitudes towards physics; (b) their level of performance on the PNMT was fairly satisfactory; there were statistically significant differences in the students' performance on the PNMT based on their school location in favour of students from urban schools, SEB in favour of students from a high SEB and attitudes towards physics in favour of students with highly positive attitudes to physics; and (c) there was a positive statistically significant but weak relationship between the students' SEB, school location, attitudes to physics and their performance on the PNMT.