

## Abstract

This study determined the effects of two teaching strategies on Jamaican high school students' performance on three integrated science process skills and if there were statistically significant differences in their performance linked to their gender, ability level, treatment, socio-economic background (SEB) and school location. The subjects were 207 grade 11 chemistry students (87 males and 110 females); non-randomly selected from eight co-educational high schools. A test of integrated science process skills (TISPS) developed by the researcher was used for data collection. The main findings of the study were as follows:

1. The experimental students significantly outscored their control group peers on the three integrated science process skills on the objective test items.
2. The experimental group students performed satisfactorily on all three integrated science process skills on the objective test items, while their control group peers performed satisfactorily on two of the three process skills studied (i.e. identifying variables and planning and designing) but unsatisfactorily on the skill of formulating hypotheses.
3. Of the three variables studied, the subjects performed the best on the planning and designing skill and the least on the skill of formulating hypotheses on the objective test item.
4. There were statistically significant differences in the students' post-test performance on formulating hypotheses on the objective test items linked to their ability levels and school location, while there were no significant difference in their performance based on the their (i) gender, (ii) treatment, and (iii) SEB.

5. There were statistically significant differences in the students' post-test performance in identifying variables on the objective test items linked to their (i.) gender, (ii) ability level, and (iii) school location, while there were no significant difference in their performance based on their SEB and treatment.

6. There were no statistically significant differences in the students' post-test performance on planning and designing on the objective test items linked to their (a) gender, (b) ability levels (c) treatment, (d) SEB and (e) school location.

7. There were statistically significant differences in the students' post-test performance on planning and designing on the performance items linked to their treatment, while there were no significant difference in their performance based on their (a) gender, (b) ability levels, (c) SEB, and (d) school location.