Interactive instructional approaches to teaching Integrated Science and their effect on students' performance: A study in a Ghanaian University Context

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ABSTRACT

This study determined the effect of an interactive approach to teaching and learning on students' performance in selected concepts in Integrated Science. The study took place at the University of Education, Winneba, in the Central Region of Ghana. First year Integrated Science students were purposively selected for the study. The sample of the study comprised of 40 Level 100 students made up of 4 females and 36 males. Test items were the main instruments used to collect data for the study. The students completed a pre-intervention test before each lesson after which an interactive instructional approach was used to teach the selected concepts in Integrated Science, after which a similar test, but different in content was administered as a post-intervention test. Statistical Package for the Social Sciences (SPSS) version 20.0, for windows and Hake's normalized gain were used to analyse the data. The findings from the average normalized gain of the post-intervention and pre-intervention test scores showed a gain of 0.76, indicating the effectiveness of this interactive instructional approach. The study recommends the use of interactive instructional approaches for teaching Integrated Science lessons at the first-year level of the university.

Keywords: interactive instruction, concept-based, VARK modes, case study, Integrated Science