

Effects of Experiential and Generative Learning Strategies on Students' Academic Achievement in Environmental Concepts

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ABSTRACT This study was carried out to determine the relative effects of Experiential Learning Strategy (ELS) and Generative Learning Strategy (GLS) on students' academic achievement in environmental concepts in biology. The moderating effects of gender and mental ability were also examined. The study adopted pretest-posttest, control group, quasi-experimental design. A total of 439 sample involved in the study were randomised to ELS, GLS and Control groups. Instruments used include Biology Achievement Test (BAT) and Instructional guides on ELS, GLS and Conventional Strategy. Treatment had significant main effect on students' achievement score ($F_{(2,410)} = 522.20, \eta^2 = 0.718$). Participants in ELS had highest achievement scores ($x = 20.14$) than those in GLS ($x = 17.69$) and control ($x = 5.59$). There was a significant main effect of mental ability on students' academic achievement in environmental concepts ($F_{(2,410)} = 5.6, \eta^2 = 0.22$). Students with high mental ability had higher adjusted score ($x = 17.55$) than those with low mental ability ($x = 13.60$). Both experiential and generative learning strategies enhanced students' achievement in environmental concepts.