The prediction of form four science achievement with online Learning and student's self-efficacy

ABSTRACT

Student's self-efficacy and online learning is believed to reflect the confidence to master the learning of science. Proportional stratified random sampling technique was applied to 300 respondents. Quantitative survey was conducted through data collection using a set of 57-item research questions and a 30-item Multiple Choice Question (MCQ) science test. The data was analysed using a statistical package for social science (SPSS) version 26.0. The value of alpha Cronbach reliability in online learning research questions a=0.890, self-efficacy a=0.917, and science achievement test a=0.774. Stepwise multiple regression test results indicated that online learning and student's self-efficacy contributed 14 percent of the student science achievement, [F (2,297) = 24.246, p<.05]. The regression coefficient showed that both the variables of online learning (β=0.343), and self-efficacy (β=0.315), made a positive contribution to the science achievement of Form Four students. These findings explain that students who are at a high level of online learning and have a high level of self-efficacy also have a higher level of science achievement. It is found in this study that the main predictors of student science achievement are online learning followed by self-efficacy.