

The implementation of flipped classroom instructional to enhance academic achievement among form four chemistry students

ABSTRACT

This action research aimed to improve the instructional process through the flipped classroom teaching strategies in order to enhance academic achievement and interest for acid and base topic among the form four chemistry students. The location for this study is located at one of the secondary school in the Hulu Langat District, Selangor. The respondents in this study consists of 32 chemistry students with 17 boys and 15 girls. The research model chosen in this action research is Kurt Lewin's Model (1948). There were two types of instruments used in this study namely as achievement test which involve in the pre-test and the post-test and a survey to measure level of interest among the respondents towards the flipped classroom teaching strategies. The data was analyzed in descriptive and inferential statistics (paired sample t-Test) to determine the value of mean, standard of deviation and the differences of mean's score between the pre-test and post-test. Findings in this study showed that there was an improvement in the post-test with value of mean 66.56 (SD= 3.88) compared to the pre-test with value of mean 51.72 (SD= 4.11). There was a significant differences of mean's score ($t = -23.914$, $df = 31$, $p < 0.05$) between pre-test and post-test in this study. The level of interest among the students towards the flipped classroom strategies showed medium high score (Mean= 3.73). These findings showed that flipped classroom teaching strategies could enhance the academic achievement as well as student's interest among the form four chemistry students. The implementation of flipped classroom strategies with the combination of ICT is one of the techniques that can be used to scale up quality of learning across Malaysia using the ICT as stated in the Malaysia Educational Blueprint (2013-2025) at the seven shift.

Keyword: Flipped classroom; Academic achievement; Student is interest and form four chemistry students