

The effectiveness of project-based learning (egg drop project) towards students' personal interest

Abstract

This study was attempted by the researcher to examine students' personal interest with the implementation of Project-Based Learning (PBL) in a Physics Subject. This research was taken place in Tuaran and Kota Marudu Districts which represent urban area and rural area respectively. Students have done egg drop project to have better understanding towards physics concepts (i.e., momentum, impulse and impulsive force). This study was carried out on 38 Form Four students which 17 male students and 21 female students. Data from this study were collected via The Colorado Learning Attitude about Science Survey (CLASS) – personal interest category. Respondents were required to mark the appropriate statements in terms of Likert scale degree of agreements before and after the implementation of PBL. Gathered data were analysed using Statistical Package for Social Science Version 20.0 for windows (SPSS) to compare the students' pre-survey and post-survey responses. Wilcoxon Signed Ranks Tests results showed that students' personal interest for both schools in total have positive significant difference and in terms of gender, male and female students' personal interest for both schools in total have positive significant difference after the implementation of Project-Based Learning (egg drop project). In addition, Wilcoxon Signed Ranks Tests results showed that urban students have positive significant difference but contrary for rural students have no significant difference in terms of their personal interest after the implementation of Project-Based Learning (egg drop project). Paired samples-t-test results showed that students' personal interest for both schools in total has positive significant difference and in terms of gender, male and female students' personal interest for both schools in total have positive significant difference after the implementation of Project-Based Learning (egg drop project). Moreover, urban and rural students' personal interest has positive significant difference after the implementation of Project-Based Learning (egg drop project). Through Project-Based Learning (egg drop project), students can relate physics concepts; momentum, impulse and impulsive force into real life situations, engage students' personal interest and change students' perception towards physics.