

Effectiveness of problem-based learning approach in mathematics subject among lower secondary students of SMK Usukan, Kota Belud, Sabah

ABSTRACT

Problem-based learning (PBL) methods are being used widely amongst teachers and lecturers to educate students in Science, Technology, Engineering and Mathematics (STEM) related programs in higher secondary and tertiary levels. This project was done as an effort to redeem STEM education due to the declining number of students in STEM related subjects in higher secondary schools as well as in university levels. Thus, a total of 74 students from Form 1 and Form 2 in SMK Usukan, Kota Belud have participated in this study. A structured questionnaire focusing on learning, teaching and communication skills was given to the students and the results were analyzed. Based on the questionnaire, the mean value range of 5.30 - 5.73 and standard deviation value range of 0.50 – 0.76 was obtained respectively. It shows that this pre-experimental project suggested that the learning approach using problem-based learning was effective in terms of students understanding in learning, teaching, and promoting good social skills (communication, and teamwork skills) among the students.