

A Preliminary Study on STEM Encouragement in Chemistry Subject: The Learning Experience of SMK Usukan Students in STEM AUMS Warrior Program

ABSTRACT

Currently, due to the lack of awareness in STEM education, the number of Science, Technology, Engineering and Mathematics (STEM) students in Sabah has been continuously decreasing. It is crucial to engage school in rural area of Sabah with STEM activities to boost their interest towards STEM education. The primary goal of this study is to establish effective Chemistry-STEM module, analyzing the preliminary effects of the integration on the interest of students, and encouraging STEM education to rural students through chemistry subject. Present study is the preliminary investigation on the learning experience of students in STEM through the Chemistry module. For the purpose of this study, a sample of 74 students from the lower secondary school of SMK Usukan, Kota Belud, Sabah participated in The Power of Atom Module developed by Preparatory Centre for Science & Technology (PPST), Universiti Malaysia Sabah (UMS). Student's learning experience data was gathered through a questionnaire that results in statistically significant improvement in STEM learning and communication skills. The findings suggested that the Chemistry-STEM module developed by Chemistry lectures encourage and enhance self-learning, interest in learning Science (i.e. Chemistry), teamwork skills and communications skills of the students. It shows that this module is approachable to rural schools in learning STEM education.