Motivation to learn science as a mediator between attitude towards STEM and the development of STEM career aspiration among secondary school students

ABSTRACT

Education system plays an important role when it is able to produce skilled labour in the Science, Technology, Engineering and Mathematics field (STEM) for industrial need. Increasing students' interest to explore science by integrating STEM in the learning process is the main agenda for the global education system to ensure the learning outcome for students to excel in the future is achieved. Therefore, the need to cultivate the attitude towards STEM and the motivation to learn science is the drive in the development of students' STEM career interest. Hence, this research will 1) Identify the direct effect of attitude towards STEM and 2) Identify the effect of mediator which is motivation to learn science towards the development of students' STEM career interest. This research is a quantitative research that uses questionnaire forms. The research respondents are comprised of 419 Form 4 science stream students in Selangor, Malaysia. The result from the study can answer the research questions by proving the influence of attitude towards STEM is significant (p=.002) and the huge effect of motivation in science as mediator (R2=.458) towards the development of students' STEM career interest. The result of the study is hoped to be able to give meaningful input towards students' learning as well as the importance of attitude towards STEM, and the motivation to learn science as a mediator could contribute towards detailed curriculum design and the teaching of science so that it will become more meaningful towards students' future.

Keyword: Attitude towards STEM; Motivation to learn science; STEM; Career interest; Secondary school; Science curriculum