

## **Learning strategies and science achievement of first-year students at vocational colleges**

### **ABSTRACT**

The level of first year students' science achievement at Malaysian vocational colleges in general is low. Although various variables have been associated with science achievement, research on the influence of learning strategies on students' science achievement in vocational colleges is still limited. Therefore, a total of 265 first-year students (aged 16 years) in seven vocational colleges in Sabah were sampled using cross-sectional survey research design. Two research survey instruments were used: 1) Learning and Study Strategies Inventory to measure learning strategies; and 2) Science Achievement Test to measure science achievement. Based on the findings, it was revealed that the level of learning strategies for Skill and Self-Regulation was moderate, while for Will was high. The overall level of science achievement was low. There was also no significant gender difference in all of learning strategies' constructs except for Self-Regulation, while there was a significant difference in the level of science achievement based on learning strategies. Science achievement was discovered to be related and influenced significantly by the Self-Regulation construct of learning strategies. It is suggested that vocational college students to improve their Self-Regulation so that they could attain the desired science achievement. The findings show that it is important for teachers to identify students' learning strategies so that appropriate teaching methods can be planned and implemented to improve their achievement in science.