

## **Curiosity towards STEM education: A questionnaire for primary school students**

### **ABSTRACT**

There are limited research studies about the development of questionnaire to assess the level of primary school students' curiosity towards STEM education. In this research, curiosity towards STEM Education Questionnaire (CQ-STEM) instrument was developed based on Berlyne's Theory of Curiosity. CQ-STEM consisted of 10 items measuring the two constructs of curiosity towards STEM, namely exploration and acceptance. A total of 166 fifth graders aged 10 to 11 years enrolled in five urban schools in Sabah, Malaysia made up the research sample. Rasch Measurement Model was applied to determine the validity and reliability of CQ-STEM. The validity of the CQ-STEM instrument was well established among the constructs of exploration and acceptance through the person fit, item fit, item polarity, unidimensionality, and variable map. The CQ-STEM instrument was found to have a high reliability with a Cronbach's alpha value (KR-20) of .93. CQ-STEM has an excellent item reliability and moderate high item separation value of .96 and 4.83 respectively. In conclusion, CQ-STEM has good validity and high reliability in measuring curiosity towards STEM Education among primary school students.