

## **The content knowledge and the teacher readiness of teaching secondary school quantum physics in Sabah**

### **ABSTRACT**

Modern technological applications made quantum physics (QP) an important subject to include in secondary school curricula in other countries before it did so in Malaysia. Secondary school students in our county will be educated using the new, revised curriculum when QP goes into effect in 2021. Consequently, a study was done to determine the level of content knowledge and teacher readiness for teaching secondary school quantum physics in Sabah. A cross-sectional survey method was used to gather data from a sample of 175 Sabah Form Five Physics teachers, who were chosen through a multistage cluster sampling process. The research instrument used an adapted and modified questionnaire. The reliability values of this instruments were high at .87. The IBM SPSS version 28.0 software was used to analyze the study data. According to the findings of the study, physics teachers have a moderate level of content knowledge ( $m = 6.78$ ) and teacher readiness ( $m = 6.96$ ). Using the data from this study, the Malaysian Ministry of Education and policymakers can get a clear image of how prepared Physics teachers are for QP implementation once it is implemented in 2021. The implications of the study show that content knowledge towards teacher readiness of teaching secondary school QP is crucial to improve the quality of QP teaching.