

# The Influence of Technological Pedagogical Content Knowledge and Commitment on Motivation in Implementing Online Learning among Physics Teachers in Malaysia

Nyet Moi Siew, Samsul Juwait

Universiti/ Malaysia Sabah

## Abstract

Most educational institutions were shut as one of the measures to deal with the COVID-19 pandemic. To maintain continuity of the educational processes, teachers have been forced to adopt online teaching and learning methods. However, previous studies have found that teachers' motivation was affected because of this situation. This same situation raised concerns among Physics teachers, especially because the subject not only consists of theoretical aspects but also involves practical matters. Therefore, this quantitative study using questionnaires was conducted to determine the influence of technological pedagogical content knowledge (TPACK) and commitment on the motivation of Physics teachers in Sabah, Malaysia in implementing online teaching and learning. A total of 77 male Physics teachers and 109 female Physics teachers were selected using stratified random sampling method. The descriptive analyses results using SPSS software version 26.0 found that the levels of all three variables were high with the level of TPACK ( $M=3.94$ ,  $SD=.374$ ), the level of commitment ( $M=3.99$ ,  $SD=.443$ ), and the level of motivation to perform online teaching and learning ( $M=3.90$ ,  $SD=.369$ ). Next, inferential analyses showed that TPACK had a significant relationship ( $r=.552$ ,  $p < .05$ ) and a significant influence towards the motivation to perform online teaching and learning ( $F(4,181)=24.201$ ,  $p < .05$ ); the content knowledge and technological pedagogical content knowledge acting as the primary predictors. Similarly, the commitment had a significant relationship ( $r=.514$ ,  $p < .05$ ) and a significant influence towards the motivation to implement online teaching and learning ( $F(4,181)=27.732$ ,  $p < .05$ ). Three constructs were the main predictors: commitment to school, commitment to teaching, and commitment to profession. This study is important as an input to the stakeholders in understanding the situation of Physics teachers while carrying out essential tasks in the context of the Covid-19 pandemic and to formulate relevant policies and programs for the survival of the national education system.

**Keywords:** commitment; Covid-19 pandemic; motivation; online learning; technological pedagogical content knowledge