Impacts of Thai Higher Education Instructors' Digital Literacy On Their TPACK and Teaching Practices: An Investigation On Current Status and Preparedness

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Abstract

At present, digital technology is being applied worldwide to teaching and learning, and it is evolving at an accelerating pace. Accordingly, preparing students for such disruptive changes of teaching and learning require instructors who have proper knowledge and skills such as digital literacy or even TPACK, Technological Pedagogical Content Knowledge. The purpose of the present study was to investigate Thai higher education instructors' digital literacy at higher education institutions in the context of Thailand. Moreover, we investigated the instructors' TPACK and their teaching practices influenced by their digital literacy. The present study stands on mixed methods approach. The data were collected from a variety of institutions with the help of online questionnaires as well as in-depth interviews. In addition, class observation was also employed. For quantitative part of data collection, the 111 higher education instructors participated in the present study as they responded to the questionnaire through online survey using google forms. These participants represented the instructors in higher education institutions across Thailand. For qualitative data collection, voluntary seven instructors were individually interviewed and asked for permission to their class teaching observation. The participants consisted of three male and four female instructors from different geographical areas in Thailand. Participants were diverse in all three main groups: two from social science, four from science and technology and one from health science. All participants have consistent education backgrounds which relate to their work fields. Participants' teaching and researching experiences were in range of 5 - 15 years. In analyzing the obtained data, basic statistics such as mean, S.D. and percentage were used for quantitative data analysis, whereas for qualitative data, content analysis technique was employed as a key method. The results reveal that the instructors showed moderate level of digital literacy and more than half of the participating instructors exhibited some key fundamental digital skills and literacy. However, the instructors express their TPACK and teaching practices at moderate to low levels. They recognized the importance of TPACK, and some challenges and difficulties. The findings suggest that there is still a need for specific training for enhancing their digital literacy and TPACK in order for them to utilize digital technologies for improving their teaching practice more effectively.

Keywords: instructors' digital literacy, TPACK, teaching practices