

The influence of tpack, creativity nurturing Behavior and technology acceptance of Secondary school mathematics teachers on the Implementation of 21st century learning

ABSTRACT

The role of teachers in implementing 21st Century Learning (21st CL) is a demand today in building a generation that is ready to face global challenges in the future. This study was conducted to identify the influence of Technological Pedagogical Content Knowledge (TPACK), Creativity Nurturing Behavior (CNB), and Technology Acceptance (TA) on the Implementation of 21st CL (I-21st CL) by secondary school Mathematics teachers in Sabah, Malaysia. A survey method by employing a stratified random sampling technique was applied involving a total of 248 teachers. Data was collected using a set of adapted questionnaires and analyzed descriptively and inferentially. The t-test result shows a significant difference for CNB and TA based on gender. Only the TA variable showed a significant difference based on teaching experience. There is a significant relationship between TPACK, CNB, and TA with I-21st CL. SEM Path Analysis shows that the combination of the variable contribution of TPACK and CNB is as much as 37.1% towards TA. Meanwhile, the combination of the variables of TPACK, CNB and TA contributed 11.3% of changes to the I-21st CL. The full mediating effect of the TA variable was obtained in the relationship between TPACK and I-21st CL. TA is also a full mediator in the relationship between CNB and I-21st CL. In conclusion, the teacher factor plays an important role in determining the direction of students with a culture of knowledge equipped with 21st-century skills.