Science teachers' acceptance towards microcomputer-based laboratories

ABSTRACT

A microcomputer-based laboratory (MBL) has shown that it enhances the learning of science students by offering various pedagogical and psychological advantages. With the use of MBLs, real-time data collection and analysis can be performed seamlessly in the laboratory resulting in meaningful learning, especially of abstract concepts. Research shows that the unique capability of MBLs is more than simply motivating students as MBL can also improve students' abilities such as graph interpretation and higher-order thinking skills. Despite the extensive use of MBLs in Western countries, the affective aspect of this technological application in school is still relatively unexplored. Therefore, a study was conducted to determine the level of acceptance of inservice teachers towards MBLs using the Technological Acceptance Model (TAM) with regards to the perceived usefulness of MBL in teaching and learning science, its perceived ease of use, and the likelihood of using MBLs. The survey involved 38 in-service science teachers. The outcome indicates that the in-service teachers have a positive view towards the usefulness of MBLs in learning science and are very likely to use the system in schools. However, perceptions towards the ease of use of MBLs are not as favourable. This implies that MBLs should be promoted in schools as it can potentially enhance the quality of science education in Malaysia. Thus, the use of MBLs among science teachers needs to be promoted through intensive professional development.