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Instructional Technology Research, Design and Development

Lessons from the Field

Nor Aziah Alias & Sulaiman Hashim

Instructional Technology Research, Design and Development:

Lessons from the Field

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ABSTRACT

The Malaysian Secondary School Information Technology (IT) curriculum introduced in 1999 was developed based on the Smart School's framework which emphasised on the use of self-directed, self-access, self-assess and self-pace learning methodologies. However, the introduction of the online IT self-learning module that was supposed to helps teachers in adopting this methodology has not been implemented well. As a result, teachers tend to revert to their traditional teaching approaches which could jeopardize the success of the IT curriculum's objectives. This study was carried out to design, develop and evaluate a new web-based learning module which the researcher hopes could improve or possibly replace the existing module.

The module was developed in accordance to the developmental research approach which employed different types of evaluation method depending on its stage of development. The methods included peer review, expert review, cooperative evaluation and experimental design. The first three methods were used to address both the design and the development objective of this study while the latter is to address its evaluation objective. The result of this evaluation shows strong corroboration between all data sources (achievement test, survey and interview). In addition, the result also indicates that students who used the module have more positive perception toward the IT subject. This finding not only established the effectiveness of the module, but also the positive effect of using such module on students' achievement and their perceptions towards the subject.

This finding has two direct implications. First, the empirically proven design principle used in the design and development of the web-based learning module in this study can be used as a reference model for those who are interested in developing a similar module. Second, the finding of this study suggests the potential of integrating the use of a web-based learning module in the IT classroom.

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