AN EVALUATION ON THE USABILITY OF PHYSICS MODULE: TEACHERS’ RETROSPECTIVE

Norlidan Alias
Saedah Siraj
T. Vanitha Thanabalani
University of Malaya

The main objective of this study is to implement and evaluate the Physics module based on technology and learning style using teachers’ retrospective evaluation. Physics has always been thought of as the most difficult subject as it involves abstract concepts. Research has shown that technology has the potential to increase understanding of abstract concepts. Previous research shows that matching learning style strategy with certain technology will be able to increase students learning experience. ICT which has potential to display learning experience in variety of formats is seen as one way to fulfill diversity of learning styles. This study is based on Felder Silverman Model (1988) which comprises four dimensions (visual/verbal, active/reflective, sequential/global, sensing/intuitive). The design and development of the Physics modules comprising technology tools, teaching technique, activities and advance exercise comes from the modified Delphi technique. The researchers employed two physics teachers to test the Physics module which comprises two lessons on ‘gas law’. Following this, the two teachers were interviewed to seek insight in order to evaluate the Physics module according to teachers’ retrospective evaluation of the modules. This paper will discuss the strengths and weaknesses of the Physics module from the teachers’ retrospective evaluation. This paper will further discuss the implication of the research to practice. This model is a contribution to the pedagogy of Physics, which can be replicated by future researchers. Secondly, the modules help teachers to teach abstract Physics concepts according to technology and students learning style. On the part of students, learning abstract concepts has become more manageable. In addition, the experts consensus in the modified Delphi technique is found to be another added value as it fulfills four of the six emergent technologies as suggested by Roblyer and Doering (2010). Based on these findings, the researchers suggest that these Physics module which is based on technology and learning styles can be an effective teaching and learning instructional package.

Keywords: Physics module, technology, learning style, curriculum, teachers’ retrospective evaluation.