

Chapter 40

Using WEDPI Learning Package to Upgrade Teacher's Skills on Information Technology

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ABSTRACT

The change in teaching techniques which applies information technology brings about a paradigm shift in our country's educational system. However, past researches have shown that the application of information technology in classrooms is still at an unsatisfactory level. This is caused by a group of teachers who haven't been able to master the basic skills of information technology application even after attending the courses. Therefore, the purpose of this research is to determine the level of skillfulness of primary school teachers - especially those in the interiors – on information technology, and thereafter develop a multimedia learning package (WEDPI Package for Learning) which will hopefully assist these weak teachers to increase their level of skillfulness in information technology. WEDPI refers to the productivity tools, which includes applications for word-processing (Microsoft Word), electronic spreadsheet (Microsoft Excel), database (Microsoft Access), presentation (Microsoft PowerPoint) and the Internet. This research adopted the quantitative approach and the ADDIE model was used in the development of this multimedia learning package. To obtain information on the level of skillfulness, the researcher carried out a hands-on test. The pre-experimental designs, which are the pre-test and post-test, were executed to determine if there were any difference in the level of skillfulness of the teachers after using the WEDPI Package for Learning. The research findings showed that teachers involved gave positive comments about the experience in using this stand alone learning material. The respondents also stated that the WEDPI Package for Learning is easy to use, flexible and is able to help them increase their level of skills in information technology. This is supported by the t-test results which show that there is a significant difference in the achievement of teachers' scores.

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INTRODUCTION

The development of information and communication technology influences much of our culture and lifestyle. The application of technology in teaching and learning gives a new paradigm in teacher's teaching techniques. Previous studies have proven that the application of ICT has been able to revolutionize teachers' teaching techniques and pupils learning method. Meanwhile the time has come for schools to be informative, creative and wise by applying information and communication technology (ICT) (Ministry of Education, 2003). Smart Schools were established to give a wide place for computer technology in education system in the country. This move will narrow the digital divide between the rich and capable of using the technology at home and the less fortunate group (Ministry of Education, 1997). This facility could give more opportunity to the students to explore, control and develop various skills and knowledge more effectively and further relate the knowledge with the reality. This would finally be able to produce knowledgeable generations and smart competition to realize the country's 2020 vision.

The government's vision to build and develop human capital in the future is very much dependent on the quality of our national education system. Hence, the Education Development Master Plan (PIPP) 2006-2010 has been planned to implement and realize a holistic and world class education system. It was launched by former Prime Minister Abdullah Ahmad Badawi on January 16, 2007 (Ministry of Education, 2007). The plan outlined six cores and one of the main cores, human capital development, focused to produce a competent workforce in science and technology. Accordingly, the emphasis in this case can be seen from the program or the steps taken in the Report Card Education Development Master Plan. Among the steps the Ministry of Education have taken for rural schools are:

- Allocating Ringgit Malaysia (RM) 82 million to provide tele conference equipments, satellite phones and wireless fax facilities to 5800 urban and rural schools.
- Allocating RM 113 million to prepare course wares for teachers and pupils.
- School Net access to all school including Government funded Religious School.
- Expanding computer laboratories buildings by using cabin concept in low enrolment students cum rural schools.
- Grouping Indigenous and Penan Schools by using video conference in
 - Knowledge sharing, based on teaching and learning,
 - Data-sharing and
 - Increasing achievement by sharing information with each other.

In line with this move, it is necessary for teachers to equip themselves with information technology skills in order for the Malaysian Education Ministry initiative to meet the target set.

REVIEW OF LITERATURE

Based on the Malaysian Education Ministry planning, by year 2010, all 10,000 primary and secondary schools in Malaysia will become smart schools (Ministry of Education, 1997). This means that teachers must equip themselves to master the application of information technology and integrate it in teaching and learning. To achieve this objective, the government allocated RM 33.4 billion to the Ministry of Education in 2007 (Treasury of Malaysia, 2007). The allocation of RM 10.1 billion for information technology-based training programs was to provide schools with computer facilities and Internet access. Previous studies showed that government has spent millions of ringgit just for software licenses. For implementation of computer labs in schools, the government paid

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