

THE DIGITAL PROMISE – PEDAGOGY TRANSFORMATION USING DIGITAL LEARNING IN TERTIARY EDUCATION.

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Abstract

This paper describes pedagogical transformation using digital learning, which promotes enhanced teaching and learning in tertiary education and evaluates the end-user computing (EUC) satisfaction of digital change using various tools like forum, online quizzes, distribution of lecture notes and file sharing. The research will use a quantitative method to analyse the effectiveness of digital learning among tertiary learners. The learners can be an important source of information in evaluating the quality of digital learning interface and its effectiveness. The research survey questionnaire will be distributed through a specific Learning Management System (LMS) and the effectiveness will be analysed upon the completion of data gathering. This study is important to analyse student's expectation and to enhance digital learning utilisation.

Keywords: Digital learning, user satisfaction, end-user computing

1.0 INTRODUCTION

Learning trends have changed from the historical nature of hardcopy books and classrooms to the digital environment, with laptops and smart phones. When technology is utilised in education, it is expected to unveil many identifiable value added nuances to the learning environment. For example, it allows students to work simultaneously in different subjects and they can do their unfinished school work which is visible all the time (Nokelainen. P, 2006). Digital learning allows students to continue their work at home, the library or the coffee shop with the help of the Internet and digital media. The key factor in the success of these systems solely depends on the effective use of the system and the user satisfaction (Aggelidis & Chatzoglou, 2012). Digital competency has been well observed in a study made by Attewell and Winston (2003), with two groups of 11 to 14 years old children in New York City. One group used computers and the Internet to enhance their information literacy. The second group consisted of children from working class families who scored under par in reading tests. Their limited reading skills and the limited sources of information had virtually downgraded them.

2.0 RESEARCH OBJECTIVE

As learning has transformed into a digital platform, the issue of effective learning will continue to be discussed (Long et al., 2000). Evaluating its effectiveness provides universities with extensive information that will assist them to respond to various issues, such as understanding students' satisfaction and experiences, and could help students manage their expectations and enhance their learning utilisation. This study has focused on the effectiveness of a specific learning platform in tertiary education, and evaluates the students' satisfaction upon usage in their courses, where they receive soft copy of lecture notes, tutorials online tests and are involved in online forums. This research protocol was developed based on the end-user computing (EUC) satisfaction of Bailey and Pearson (1983) and Doll and Torkzadeh (1988). This research has utilised four independent variables; participation, timeliness, ease of use and format to estimate the dependant variables, satisfaction and effectiveness.

3.0 METHODOLOGY

The survey was operationalized using a Learning Management System (LMS) which is currently being used by students for digital learning. The college students were the target population for this research. The survey questions consist of a Likert-scale questionnaire with 12 questions. The first two research questions unveil how often a student uses the Internet and the LMS. When evaluating the specific learning platform, the questions focused at the timeliness and user friendliness that has been applied in the usability of various learning materials. The results of the questionnaire were collected via online survey forms. Two hundred and forty-four students participated in the survey and the data collected was grouped according to the students' courses, such as Diploma in Business Administration (DiBA) which consist of 126 students, Pre-University programmes (Pre-U) which consist of 57 students, and Diploma in Information Technology (DIT) which consist of 61 students.

4.0 FINDING AND CONCLUSION

The findings of the research are divided into four attributes; participation, timeliness, ease of use and format. The percentages of those attributes were calculated based on the number of responses over the total number of respondents.

Attributes	Pre-U	DiBA	DIT
Surfing Internet (Participation)	88%	76%	85%
Access to digital learning (Participation)	66%	57%	68%
Timeliness	64%	74%	55%
Ease of use	62%	78%	69%
Interface format	82%	82%	91%

Table 1: Finding based on the attributes by their respective groups.

The findings indicate that most of the students surf the Internet a few times in a day, and that they are virtually involved in the Internet either for social networking or to gain more knowledge. But when asked about their participation in digital learning, 68% of DIT students, 66% of Pre-U students and 57% of DiBA

students prefer to use digital learning as their dominant tool for sharing their ideas, involvement in group forums.

When the students were asked about the timeliness of lecture notes and online assessment, the 74% DiBA students agreed that their lecture notes are uploaded promptly and the comments for the online assessment are received quicker from their lecturers. They too agreed that digital learning has eased their learning process in such a way where they can do their quiz and revision online from anywhere and at any time. Even though 78% of DiBA students are satisfied with the factor of ease of use, 57% of them have shown high participation in digital learning. The balance of 43% of the DiBA students rarely accesses the digital platform. However, when they were asked about the interface format and the arrangement of the materials, all three groups answered positively. It demonstrates that the digital learning interface was well organised and user friendly. A better understanding of these factors can influence the user satisfaction needs and enhance the effectiveness of digital learning. The general finding of the study indicates the effective use of digital learning and the students are positively satisfied with new mode of learning.

5.0 REFERENCES

- Long, P. D., Tricker, T., Rangecroft, M., & Gilroy, P. (2000). Satisfaction with distance education: Evaluation of a service template. *Total Quality Management*, 11(4,5,6), S530-536.
- Attewell, P., & Winston, H. (2003). Children of the digital divide. In P. Attewell, & N. M. Seel (Eds.), *Disadvantaged teens and computer technologies*. (pp. 117-136). Munster, Germany: Waxmann.
- Nokelainen, P. (2006). An empirical assessment of pedagogical usability criteria for digital learning material with elementary school students. *Education Technology & Society*. 9(2). 178-197.
- Aggelidis P. V., & Chatzoglou P. D. (2012). Hospital Information Systems: Measuring end user computer satisfaction(EUCS), *Journal of Biomedical Information*, 45. 566-579.
- Doll W., & Torkzadeh G. (1988). The measurement of end-user computing satisfaction. *MIS Quart*, 12(2). 259-274.
- Bailey J., & Pearson S. (1983) Development of a tool for measurement and analysing computer user satisfaction. *Manage Sci*. 29(5), 530-545.