

Student Satisfaction and Level of Acceptance with Blended Learning Environment

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ABSTRACT

Background: Blended Learning (also known as hybrid or mixed-mode courses) is classes where a portion of the traditional face-to-face instruction is replaced by web-based online learning. It's combines multiple delivery media that are designed to complement each other and promote learning process. The purpose of present study was to examine the student's satisfaction and level of their acceptance with blended learning environment. In this study, student satisfaction was measuring by the results of a combination of factors such as instructor, technology, interaction and instruction. The results indicate that the students were satisfied with all the components. Results are also revealed that the highest mean score corresponds to interaction of the blended learning approach when student evaluate the process. The overall findings showed that even the students were satisfied with the overall components, but still at the medium level which is can be improved for the future.

INTRODUCTION

The learning environments where instructional materials are transferred electronically or through the Internet or through course software with the help of computer technologies in teaching and learning environments are known as e-learning. E-learning is electronic learning, this means using a computer to deliver part, or all of a course whether it's in a school, part of your mandatory business training or a full distance learning course.

In the early days it received a bad press, as many people thought bringing computers into the classroom would remove that human element that some learners need, but as time has progressed technology has developed, and now we embrace smartphones and tablets in the classroom and office called mobile learning, as well as using a wealth of interactive designs that makes distance learning not only engaging for the users, but valuable as a lesson delivery medium.

Regarding to Akkoyunlu [1], e-learning environments pose such disadvantages as hindrance of the socialization process of individuals, lack of sufficient recognition between the teacher and the learner and limitations concerning the communication among learners. These disadvantages have come out a search for new environments which combine the advantages of e-learning and traditional learning environments. This new environment is known as "hybrid learning" or "blended learning".

Due to rapid technology change can adversely result in a shift from higher education towards training, Burtch [2], while trying to keep up with new technology, more focus may be put on skill development rather than on learning theoretical principles. Therefore, a balance of the two components should always be maintained. To face this challenge, Strauss [3] and Garrison [4] mentioned that a blended learning approach, where learning education combines face to face classroom methods with computer-mediated

activities, can be introduced to combine technology with pedagogical principles for the benefit of student learning.

STATE OF THE ART

E-learning is still a relatively new method in teaching and learning process. At the moment there is no single definition can be said to be applicable across the board. Even the definition of e learning is often confused with the definition of online learning. Based on Sangrà *et.al* [5], these general ideas on e-learning, it can distinguish two main areas where this concept is applied. On the one hand, the informal sphere, where e-learning appears as an unfamiliar issue that isn't very well integrated into experience, and on the other hand, the academic sphere, where it appears as constantly evolving and changing factor. The following figure presents two lines of the debate more schematically:

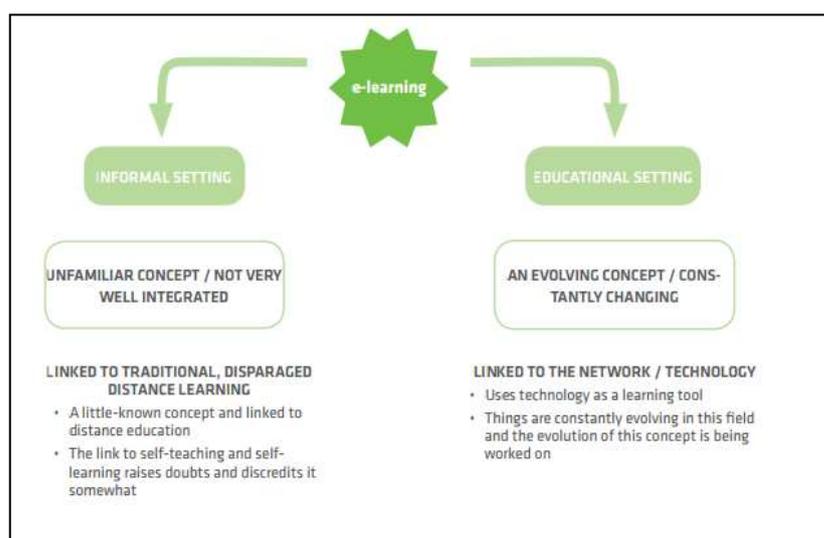


Figure 1: Main areas of the concept of e-learning.

Starting in December session 2012, the Department of Polytechnic has begun to implement the process of e-learning in basic teaching and learning in all polytechnic education ministry Malaysia. Among the elements contained in the e-learning is the use of CIDOS as a platform for the management of teaching and learning. Used of this CIDOS enhanced through the implementation of blended learning, which began to receive attention from many parties?

The History of Polytechnic Education in Malaysia

Polytechnic education began in Malaysia with establishment of the Ungku Omar Polytechnic, Ipoh in 1969 under the United Nations Development Plan. The need to provide wider access to technical education and training for the country was given prominence by the Cabinet Committee on Education in 1979 and in the First National Industrial Plan (1985-1995). In addition to decisions made by these committees, the Cabinet Committee on Training (1991) paved the way for the significant development in Polytechnic education. As a result, there was an increase in the number of Polytechnic built and these institutions were able to offer more programmes of study to cater to the demands of more semi-professional in the engineering, commerce and service sectors.

Teaching and learning at polytechnic system in early 2010, are based on Outcome Based Education (OBE). The OBE curriculum would be new not only for lecturers but also for administration committees, students as well as the other units and departments at Malaysian polytechnics. Based on Mamat *et.al* [6], an OBE curriculum means clearly focusing and organizing everything in an educational system about what is essential for all students to be able to do successfully at the end of their learning experiences. At the same time, it goes on to define and propose the best methodology to help and encourage students to learn most

effectively within their educational environment. An OBE curriculum is a product model dependent on what learning outcomes that's try to be achieved. The successful implementation of a curriculum depends on several factors which are successful interaction of lecturers, students and the knowledge they share together.

The Blended Learning

Blended learning environment regarding to Finn [7] integrates the advantages of e-learning method with some advantages aspects of traditional method, such as face-to-face interaction. Blended learning brings traditional physical classes with elements of virtual education together.

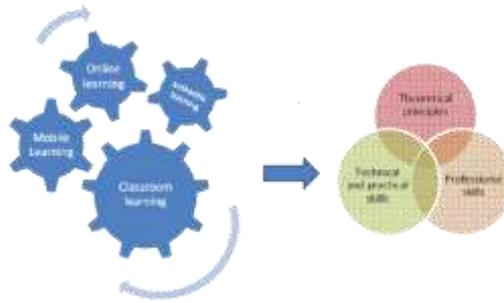


Figure 2: Blended learning methodology

Based on Thorne [8], Blended learning is described by ' a way of meeting the challenges of tailoring learning and development to the needs of individuals by integrating the innovative and technological advances offered by online learning with the interaction and participation offered in the best of traditional learning.

METHODOLOGY

Sample

The sample of 135 students used in the study was drawn from the pool of diploma in civil engineering students semester four enrolled in blended learning course offered in December Session 2014, Department of Civil Engineering, Polytechnic Sultan Azlan Shah. Of the 135 participants, a total of 104 completed the survey form (77%).

Instrument

Participants completed a Student Satisfactory Survey Form which had three sections. The first section collected demographical/personal data while the second consisted of 27 items on a 5 point Likert scale, ranging from '1-strongly disagree', to '5-strongly agree' for positive items and from '1-strongly agree' to '5-strongly disagree' for negative items. The item were based on the outcome of the literature review, addressing elements integral to student satisfaction in blended learning environment in polytechnic. Out of 27 items were addressed the following student satisfaction elements: 1) Instructor, 2) technology, 3) interaction, 4) instruction. The third section included comment by the participants.

Reliability

In order to determine the internal reliability of the questionnaire, a reliability analysis was performed with the use of Cronbach's alpha after the completion of the data collection phase. The alpha reliability coefficient of the satisfaction scale was 0.96, indicating that the instrument was highly reliable. The subscale reliability ranged from 0.89 for the interaction dimension, 0.93 for the instructions dimension, 0.84 for the instructor dimension and lastly 0.84 for the technology dimension. See Table 1 below.

Table 1: Reliability of the Student Satisfaction Survey Form

Group	Number of Items	Mean	Cronbach's α
Interaction	8	3.70	0.89
Instructions	10	3.60	0.93
Instructor	4	3.81	0.84
Technology	5	3.65	0.84

DISCUSSION

Interaction Related Factors

The overall mean for student satisfaction in this factor is 3.70. This suggests that students are satisfied with the level of interaction between themselves while enjoying their blended learning activities. This is because they can assess the CIDOS together all around the place without fear factor eyeing by their lecturer.

Instruction Related Factors

The average mean for student satisfaction in this group was 3.60. But in some areas in which student are less satisfied. They are disagreeing to take another course in blended learning in next session. This might be due to less understanding the content that the lecturer put inside the CIDOS platform.

Technology Related Factors

Most students are satisfied with the technology used in the CIDOS especially the video that was uploaded by their lecturer and they can communicate with their other friends.

Instructor Related Factors

Students in overall were satisfied with instructors with overall mean 3.81. Meaning to say that the students are enjoyable the blended learning session with the quick feedback by their lecturer while taking the assessment or else.

LIMITATIONS

This study focused on the semester four, Diploma in Civil Engineering Students in the Department of Civil Engineering, Polytechnic Sultan Azlan Shah taking blended learning course. The result cannot be generalized to the other department in Polytechnic Sultan Azlan Shah or other polytechnic in Malaysia. In addition, based on Kerlinger [9], the study used a self reported questionnaire survey form are limited in nature by the accuracy of the participant response.

CONCLUSION

As a result for this research, it can be concluded that student satisfaction in blended learning is important because it can embark the motivation of the student in their study. Measurement of satisfaction is also valuable to institutions because it can be used to evaluate courses and programs and to certain point, it can be used to predict the student achievement while taking the blended learning courses. In this research, the analysis also shown that students still preferred face-to-face courses even though they were satisfied with their grades and performance in blended learning courses. This is because at certain time, the internet speed was becomes too slow to them in sign in the CIDOS platform. And they still need to have their lecturer by side to ask the question if there any problem facing by them.

Further research is needed to find the understanding more component of student's satisfaction and facilitate improvements in the quality of blended learning courses offered. And at the same time, to support students in blended learning courses and to promote a successful learning experience. This also will help the polytechnic to look into other dimensions in order to provide a good environment to blended learning courses. The research also can be extended to assess the difference in student satisfaction between blended learning and traditional method (face-to-face) with same courses offered.

The number of participants also can be extended to include students of other department or other polytechnic in Malaysia

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