

UTeM undergraduate students' satisfaction on u-learn e-learning system

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ABSTRACT – This study investigates the factors influencing UTeM undergraduate students' satisfaction on U-Learn e-Learning System. The study adopted quantitative method to collect data and analysis, where 120 respondents from UTeM's students were chosen to answer the questionnaire survey regarding their satisfaction towards the said factors. From the result, there is a positive relationship between the four factors with the user satisfaction. In order to develop the high user satisfaction, the information system department of UTeM should look into the entire factor that has significantly influenced the user satisfaction.

1. INTRODUCTION

E-Learning as a teaching and learning strategy has provided a lot more opportunities for students in the learning process and may have contributed to their academic performance (Topagur, 2010). This allowed flexibility to accommodate part-time study in or out of the classroom. Flexibility in e-Learning allow student to learn on their own pace and provides wide access to the additional materials at anytime and anywhere. E-Learning strategies have been introduced into public universities in Malaysia since 1996 (Putih, 2007).

The study explored the scope of E-Learning as supplementary tool in delivering lessons. There is still no measurement that revealed the students' level of satisfaction with the use of U-Learn e-Learning System in FPTT, UTeM. Without the knowledge of students' satisfaction level, instructors will not be able to fully understand whether U-Learn have meets its objectives and purposes, or its components require improvement (Arshad et al., 2015a).

The aims of the study are; 1) to study the relationship between the factors and students' satisfaction with U-Learn; 2) to determine the most prominent factor that influencing students' satisfaction on U-Learn; 3) to measure students' satisfaction towards U-Learn e-Learning System.

2. METHODOLOGY

2.1 Theoretical Framework

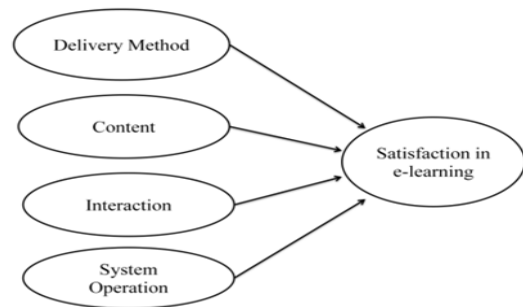


Figure 1 Theoretical framework of satisfaction in e-learning

2.1.1 Delivery Method

Allen (2008) indicated that it is very important that an e-Learning delivery method match different types and levels of learning. This statement is supported by Shea, Pickett, and Pelz (2003) which indicate that student satisfaction is further enhanced when instructor focus on instructional delivery methods that promote student autonomy.

2.1.2 Content

Northrup (2002) suggests that students are expected to be more satisfied in distance learning environments if the course materials are relevant and useful, and involve real life examples, facts, and cases. Despite of that, the characteristics of course content also contributes to distance learning satisfaction (Afzaal Ali and Israr Ahmad, 2011).

2.1.3 Interaction

Hong (2002) demonstrates that there is a positive relationship between students' satisfaction with student-instructor interaction and student-student interaction. Arbaugh (2000) suggests that the more learners perceive interaction with others, the higher the eLearning satisfaction. This showed that interaction can influence student satisfaction in eLearning.

2.1.3 System Operation

Many researchers agreed that learners' satisfaction rates increase with e-Learning compared to traditional learning, along with perceived ease of use and access, navigation, interactivity, and user-friendly interface design (Ruiz, Mintzer, and Leipzig, 2006). Picoli, Ahmad and Ivis (2001) proposed that technology quality and Internet quality significantly influence satisfaction in E-Learning.

2.2 Hypotheses

H1: Delivery method influence student satisfaction in U-Learn

H2: Content influence student satisfaction in U-Learn

H3: Interaction influence student satisfaction in U-Learn

H4: System operation influence student satisfaction in U-Learn

2.3 Research Design

The research applied the quantitative method as its approach. A selected number of students were selected as the resemblance of the authority of the students at UTeM. The survey method using questionnaires are selected in order to generate quantitative of numerical data on students' satisfaction with e-Learning (Arshad et al., 2015a, 2015b). In this study and questionnaire, the following attributes are chosen; attitude, knowledge, and behavior. The total number of respondents who answered the questionnaires were 120, consisting of undergraduate students from seven different faculties: FKEKK, FKE, FTKM, FKP, FKM, FTK, and FPTT. The results were then analyzed using SPSS 2.0.

3. RESULTS AND DISCUSSION

3.1 Multiple Regressions

Table 1 Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.761 ^a	.580	.565	.556

a. Predictors: (Constant), Delivery Method, Content, Interaction, and System Operation

Table 1 shows the value of $R^2=0.580$. This means that the model explains 58.0% of the variance in Satisfaction on U-Learn. To assess the statistical significance of the result it is necessary to look in the table labelled ANOVA. The model in this study reaches statistical significance (Sig = .000, this really means $p<.0005$).

3.2 Testing of Hypothesis

Table 2 Coefficients for Delivery Method

Model	Unstandardized Coefficients		Standardized Coefficient	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.812	.267		3.044	.003
Delivery Method	.718	.084	.620	8.547	.000

$R^2: .384$

a. Dependent Variable: Overall Satisfaction

Table 3 Coefficients for Content

Model	Unstandardized Coefficients		Standardized Coefficient	t	Sig.
	B	Std.	Beta		

Model	Unstandardized Coefficients		Standardized Coefficient	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.499	.255		1.957	.053
Content	.823	.081	.686	10.193	.000

$R^2: .470$

a. Dependent Variable: Overall Satisfaction

Table 4 Coefficients for Interaction

Model	Unstandardized Coefficients		Standardized Coefficient	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.718	.198		8.668	.000
Interaction	.484	.069	.545	7.025	.000

$R^2: .297$

a. Dependent Variable: Overall Satisfaction

Table 5 Coefficients for System Operation

Model	Unstandardized Coefficients		Standardized Coefficient	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.081	.241		4.491	.000
System Operation	.647	.077	.613	8.384	.000

$R^2: .375$

a. Dependent Variable: Overall Satisfaction

3.3 Discussion on Research Questions

The first research question is answered as shown in Table 2 to 5, whereby all the four hypotheses are supported. It means that all the constructs give a satisfaction in e-learning. For second research question, refer to figure 2 below.

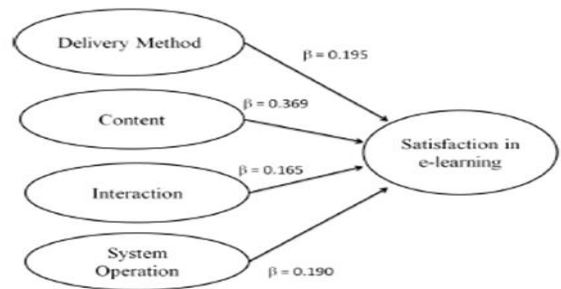


Figure 2 The Regression Model between the factors and satisfaction on U-Learn

As seen Figure 2, the highest beta value is of Content ($\beta = 0.369$). This means that this variable makes the strongest unique contribution to explaining the dependent variable, when the variance explained by all other variables in the model is controlled for. For third research question, refer to figure 3 below.

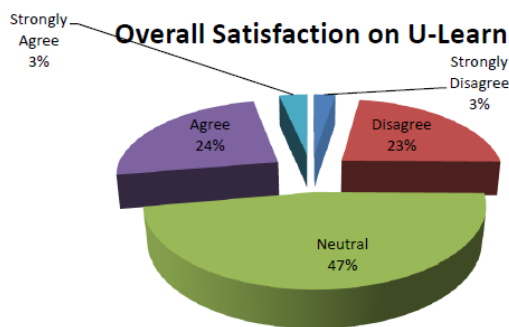


Figure 3 Overall Satisfactions on U-Learn

The pie chart in Figure 3 shows the overall satisfaction of the students towards U-Learn at UTeM. It can be concluded that majority of the students participated in this study have moderate level of satisfaction on U-Learn.

4.0 CONCLUSION

Numerous studies show various impact of e-learning on the students. However, the creation of the system determines the effectiveness of the system on students' performances. Hence, through this study, it contributes theoretically on the need of improvement of e-learning. The four variables discussed in this research which are content, delivery method, interaction and system operation are one of many factors that would influence students' satisfaction in using the e-learning. Content is very essential to students who use U-Learn as supplementary tool for in-class learning. It should be obvious by now that the approach of learning between online learning and in-class learning is different.

The data suggested that all of the independent variables that were studied had a statistically significant influence on students' satisfaction in U-Learn. The objectives are successfully achieved when all the hypotheses are accepted. Insights gained through this research will provide useful information to higher education institutes regarding e-learning.

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