

FACTORS CONTRIBUTING TO STUDENTS' SATISFACTION IN BLENDED LEARNING

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Abstract

The emergence of Information Technology (IT) has brought the education system into a world of new dimension and the emphasis is now on educating the Millennials and Generation Z. This unique generation demands for a more fun and digitalised approach when it comes to learning (Kotz, 2016). This study examines students' factors of satisfaction in blended learning courses. Students' factors of satisfaction were assessed in four areas that were deemed important to the university: technology, interaction, content and motivation. The overall satisfaction with blended learning were the dependent variable. This study used primary resources where questionnaires were distributed to final semester students in Universiti Teknologi MARA (UiTM) as they have a vast experience in using a blended learning tool called 'i-Learn'. The findings showed that there is a strong relationship between the factor of technology, interaction, content and motivation on the students' satisfaction in blended learning. This shows that students were overall satisfied with the current blended learning that is being implemented in UiTM. Therefore, when scaling up blended learning, institutions may want to consider offering students a choice of whether to enroll in blended or fully face-to-face course sections where feasible, especially in subject areas that students find to be difficult.

Keywords: Technology, motivation, content, interaction, satisfaction, blended

1.0 INTRODUCTION

In this era of a world without boundaries, teaching and learning are becoming more challenging and demanding. The emergence of Information Technology (IT) has brought the education system into a world of new dimension and the emphasis is now on educating the Millennials and Generation Z. This generation is the specific generation born between 1990 and 2000. They are a unique group in both the demand and demeanor as compared to other generations. They are perceived to be increasingly familiar with digital and electronic technology or in short, they are labelled as IT savvy individuals.

When it comes to classroom lessons, PowerPoint slides or notes prepared by lecturers are no longer relevant to attract students' attention in class if it is not used effectively (Inoue-Smith, 2016). PowerPoint's disadvantages include: greater tendencies to include irrelevant information that may actually detract from core concepts; neglect of interaction with students and making a lecture a monolog (Xingeng & Jianxiang, 2012). Generation Z and Millennial students demand for a more appealing and fun approach (Kotz, 2016). As a result, they were only able to focus for the first half hour and then switched their attention to other activities such as fiddling with their mobile phones or tablets.

To prevent such boredom in class, students tend to get hooked onto various social media applications, chatting through WhatsApp and such. According to Melton, Bland, and Chopak-Foss (2009), the introduction of blended learning is able to solve student's boredom and create greater learning enjoyment as they enjoy active learning in-class sessions. In addition, blended learning emphasis shifts from teaching to learning centered, which involves a paradigm change in the education system where students become active and interactive learners. Therefore, it is vital to create student enjoyment and satisfaction in learning as this will indirectly affect their performances.

Unfortunately, similar to the English proverb: "You can lead a horse to the water but you cannot make the horse drink", we cannot assume that everybody such as the student or academics will want to fully adopt the blended learning approach although the solution has been made available. Reason being is that it is too challenging. Therefore, in order to increase the usage of blended learning, the factors that will motivate students or satisfy them to use the blended learning tool should be identified, gathered and analysed.

2.0 LITERATURE STUDY

The study is based on literature on students' satisfaction studying in blended learning environments, their preferences for particular aspects of blended learning, and their achievement in blended courses. With regards to students' satisfaction, there is an overwhelming body of research that demonstrates students having greater satisfaction with blended courses, as compared to both traditional face-to-face and fully online modes of education.

Owston, York, & Murtha (2013) found that there is a strong relationship between perception on blended learning and grades achieved. However, they found that satisfaction between high achievers and lower achievers differ. High achievers were found to be the most satisfied with blended learning.

In addition, Adas and Shmais (2011) found that there were situations where integrated use of blended learning involving face-to-face teaching, digital media and digital communication with simple navigation between the content items, lead to positive students' perceptions. This is in contrast to negative students' perceptions in the situation where learners must navigate in online learning, and where there is little or no face-to-face instruction. In this current study, the factors that contribute to students' satisfaction on blended learning include technology, interaction, content and motivation.

For the technology factor, Naaj, Nachouki, and Ankit (2012) found that students should be able to easily access the computer and Internet in order for blended learning to be successful. In addition,

students need to be familiar with the technology used as well as receive adequate technical support. In regards of content, Adas and Shmais (2011) found that the materials provided by the lecturer, whether printed material or online material (such as notes, slides and many more) need to be sufficient for students. If the content of the learning material itself is inadequate, it will lead to student dissatisfaction.

The interaction factor involves two parties; learner to teacher interaction and learner to learner interaction. Askar and Altun (2008) found that blended learning allowed students to study in groups and get immediate feedback. In addition, students are able to share viewpoints and discuss them with one another in a virtual environment, thereby gaining more understanding and perspectives. This type of environment allows for social interaction and creates meaningful, active, learning experiences. Figure 1 depicts the research framework of the current study.

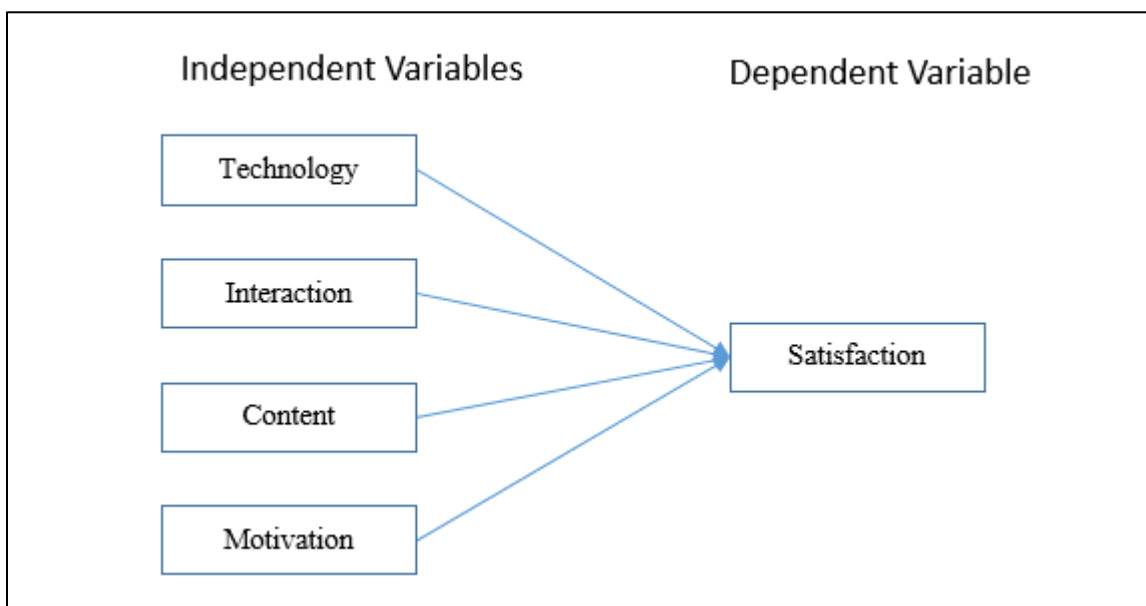


Figure 1. Research Framework

The emphasis on the motivation factor appears in two forms, which are intrinsic motivation and extrinsic motivation (Ryan & Deci, 2000). The most basic distinction is between intrinsic motivation, which refers to doing something because it is inherently interesting or enjoyable, and extrinsic motivation, which refers to the drive to do something because it leads to a possible outcome. It was mentioned that when a student is found to have control of his own life, actions, and choices, it increases his motivation and interest. For example, he can choose to read notes from blended education during his own free time that best suits him compared to in a normal classroom setting.

3.0 METHODOLOGY

3.1 Research Design and Data Collection Method

The research is conducted in UiTM, a large university that has embarked on a major initiative to scale-up blended learning across its campus. This study utilised primary resources where questionnaires were distributed to final semester students of the Bachelor of Accountancy course as they had vast experience in using a blended learning tool known as the 'i-Learn'. The questionnaires were personally distributed to the Bachelor of Accountancy's final semester students in UiTM, Puncak Alam Campus. Two hundred sets of questionnaires were sent to the students during class. Out of the 200 sets of questionnaires distributed, only 147 were returned to the researchers.

3.2 Survey Instruments

The questionnaire was constructed based on a study by Owston et. al (2013), Adas and Shmais (2011), Alebaikan (2010) and Tselios et. al (2011). The measurement for each factor ranging from scale 1 (strongly disagree) to 5 (strongly agree) are shown in Table 1.

Table 1. Research variables and measurements

Research Variables	Measurements
Technology	<ol style="list-style-type: none"> 1. The web resources in this course are helpful. 2. When I encounter a problem with the use of the technologies in this course, the technical support service helped me with my problem in a timely and effective manner. 3. I can access the learning activities at times convenient to me.
Interaction	<ol style="list-style-type: none"> 1. I feel that the amount of my interaction with other students in this blended learning course increased. 2. I communicate with other students in this subject electronically (email, discussion forum). 3. I have the freedom to ask my lecturer what I do not understand. 4. I have the freedom to ask other students what I do not understand. 5. Other students respond promptly to my request for help.
Content	<ol style="list-style-type: none"> 1. This course experience has improved my opportunity to access and use the class content. 2. This course has improved my understanding of key concepts. 3. The online material is available at locations suitable for me. 4. The learning objectives are clearly stated in each lesson. 5. The organization of each lesson is easy to follow. 6. Expectation of assignments are clearly stated.
Motivation	<ol style="list-style-type: none"> 1. I have strong time management skills. 2. I am motivated to succeed. 3. In this blended learning environment, I have to be self-disciplined in order to learn. 4. I receive positive support from my classmates. 5. I enjoy studying using blended learning.
Satisfaction	<ol style="list-style-type: none"> 1. Overall, I am satisfied with this blended learning course. 2. Given the opportunity, I would take another course in the future that has both online and face-to-face components. 3. I felt a sense of satisfaction and achievement about this blended learning environment.

The 147 questionnaires returned to the researchers were further analysed using the Statistical Package for Social Sciences (SPSS) to examine the significant factors of technology, content, interaction and motivation that contribute to the students' satisfaction in blended learning.

4.0 RESULT AND DISCUSSION

This section discusses the descriptive analysis of the current study and the multiple regression analysis.

4.1 Descriptive Statistic for Research Variables

Table 2.1 Descriptive Statistic for Research Variables

Variables	Minimum	Maximum	Mean	Std. Deviation
Technology	2.00	5.00	3.7596	.50685
Interaction	1.00	5.00	3.6984	.53064
Content	2.00	5.00	3.9057	.42513
Motivation	2.00	5.00	3.8789	.50290
Satisfaction	1.00	5.00	3.8231	.74567

Table 2.1 exhibits the mean value for the variables of the study. Research variables of technology, interaction, content and motivation have mean values above 3.5, which indicates that all the respondents moderately agree and are satisfied with the current blended learning factors. The highest mean achieved is on content, which is 3.90, followed by motivation (3.88), satisfaction (3.82), technology (3.75) and interaction (3.69).

4.2 Descriptive Statistics of Students' Satisfaction on blended learning

Table 2.2 Descriptive Statistic of satisfaction

Question	Minimum	Maximum	Mean	Std. Deviation
Overall, I am satisfied with this blended learning course.	1	5	3.82	.819
Given the opportunity, I would take another course in the future that has both online and face-to-face components.	1	5	3.86	.764
I felt a sense of satisfaction and achievement about this blended learning environment.	1	5	3.79	.821

Table 2.2 shows the mean values for students' satisfaction. Overall, the values are above 3.5, which indicates that the respondents moderately agree that they were satisfied with the current blended learning in UiTM. The highest mean value is 3.86 for the question; "Given the opportunity, I would take another course in the future that has both online and face-to-face components", which proves that respondents moderately agree that they are satisfied with the current blended learning and prefer to use blended learning again in the future.

4.3 Multiple Regression Analysis

The normality test were conducted and the skewness and the kurtosis fell within the accepted range of -1.96 to 1.96. Hence, the data is considered normal for further analysis. The correlation analysis was also tested and the result shows that the correlation variables are between 0.401 and 0.761. Thus, the minimum correlation of 0.3 is not violated. Besides that, since the highest correlation is between content and motivation of 0.761, which indicates moderate correlation, hence, no multi-collinearity exists.

Table 2.3 The regression model of research variables and students' satisfaction

Variables	Beta (β)	t-value	p-value
(Constant)	1.081	12.828	0.000
Technology	0.138	2.258	0.025
Interaction	0.287	4.084	0.000
Content	0.179	2.069	0.040
Motivation	0.809	7.759	0.000

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

$R^2 = 0.532$, Adjusted $R^2 = 0.528$, F value = 164.56

Table 2.3 presents the results of the multiple regression analysis that shows the beta coefficient value, t-value and p-value for each variable. All the factors of technology, content, interaction and motivation have significant relationships on the students' satisfaction on blended learning. Thus, the current study's findings confirmed the findings of past studies.

With respect to the technology factor, this study found a significant relationship between technology and students' satisfaction. Most students are satisfied with the technology used in blended learning in UiTM, because when they encounter any problems, they have the technical support to help them. Besides that, blended learning technology have facilitated flexibility for the students. The results of this study is in alignment with past studies (Naaj, Nachouki, & Ankit, 2012) (Dickfos, Cameron, & Hodgson, 2014). For the interaction factor, this study found a significant relationship between interaction and students' satisfaction. Most respondents agreed that the use of chat rooms allowed them to express their opinion and interact with others without feeling threatened. This finding is supported by the past study of Weil, De Silva, & Ward (2014). For the content factor, this study found a significant relationship between content and students' satisfaction. Most students are satisfied with the content of a course in blended learning where the online materials are available for them and the contents available have improved their understanding of the key concepts of a course. This result supports the findings of Chen, Yong, & Yao (2016). Last but not least, regarding the motivation factor, this study also found a significant relationship between motivation and students' satisfaction. The students preferred blended learning and feel motivated to learn when they could interact with the module and assist them in understanding a topic. The use of blended learning was considered appealing and made the learning process more enjoyable. This finding is in line with the past study by Tan & Neo (2015). Overall, this study found that most respondents were satisfied with the current blended learning that is being implemented in UiTM.

5.0 CONCLUSION AND FUTURE WORKS

Achieving student enjoyment in learning is very subjective to measure. However, the introduction of blended learning in higher institutions could increase the enjoyment of learning. In addition, in order to be able to implement blended learning successfully, factors that will influence student dissatisfaction in using it need to be identified. The most crucial factor is technology. Should the students' encounter too many technical difficulties which cannot be easily fixed, the content may be abandoned entirely. This lack of technical efficiency could lead to the failure of the whole learning program. Besides that, the content factor is equally important. In many blended learning programs, the learning content has always been

undermined due to the fact that focus was more on technology ('how to deliver') instead of emphasising on the content of education ('what to deliver'). Consequently, too much information may put strenuous burden on students. As a result, it makes them less motivated to complete self-paced learning requirements. Therefore, blended learning satisfaction factors need to be integrated into the classroom lesson so that our educational system will continue to thrive and thus be able to cope with the competitive education environment. Future studies should capture the academics' satisfaction in blended learning.

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