# Student's Satisfaction towards Online Learning

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**Abstract:** This paper presents the findings of students' satisfaction toward online learning at Universiti Teknologi MARA (UiTM) Pahang as it is challenging to get student participation in online learning activities. Poor participation among students in online learning activities and their satisfaction in online learning activities will give impact to their academic performance. The findings of the study is guided by the three key objectives which are; to identify the type of online learning activities used among students at UiTM Pahang, to investigate the approaches used by lecturers in encouraging student participation in online learning activities at UiTM Pahang and to identify the the level of satisfaction among students towards online learning at UiTM Pahang. The findings of this study reveal that the most used online learning activities among UiTM Pahang students are online test or quiz, followed by the usage on online nores and online assignment. Furthermore, the study signifies that lecturers used simple words or instructions to deliver message in a group discussion to encourage student participation in online learning activities. In addition, this study discovers that the students are fairly satisfied with the online learning practices at UiTM Pahang. Therefore, to improve the effectiveness of online learning practices at UiTM Pahang, lecturers should take concern to look forward on this finding in order to improve the effectiveness of online learning process at UiTM Pahang.

**Keywords:** Online learning, Student participation, Student satisfaction

## 1. Introduction

The role of Information and Communication Technology (ICT) in Malaysia has become more vital with the Malaysian Government exhilarating the pace for various sectors of the industry to embrace ICT. This scenario also involves the education industry in our country. In addressing priority usage of ICT in Malaysia and as the spending of ICT is increasing, it shows that the ICT has also influenced the implementation of online learning at educational system in Malaysia. Online learning is one of teaching and learning methodology which is being used at higher education institution in Malaysia for knowledge sharing, interaction and communication between lecturers and the students. This research is important to study student participation and their satisfaction towards online learning. Thus, the online learning outcome will meet the objective of the subject matter learned throughout the semester.

Raja Maznah (2004) notes that most public universities in Malaysia have some form of strategic plan for implementing pure electronic university. This plan includes the teaching and learning program which will be conducted via online or web-based mode to replace the traditional classroom learning. This shows that universities in Malaysia are ready for the online delivery learning which supports distance education. Nowadays, most higher education institution in Malaysia are ready for online learning. With supports from the government under the 9th Malaysian Plan (2006-2010), Malaysian government has highlighted building world class human capital through lifelong education. In addition, the setting up of the virtual universities, the Universiti Tun Abd Razak (UNITAR) in 1998 and the Open University of Malaysia (OUM) in 2000 is a proof of government commitment to support the implementation of online learning in higher education institution in Malaysia.

Even though there are many educational benefits associated with using computer technologies, there are also disadvantages. Critics have argued that online learning and the use of information technology may put certain student populations in disadvantages (Pu-Shih Daniel Chen et al., 2010). Student's satisfaction is also another important element in online learning implementation. In order to fulfil student's satisfaction in online learning, it is important for the instructor to give clear instruction regarding how to access course content and learning activities (Chakraborty and Nafukho, 2014).

Poor student participation and their level of satisfaction towards online learning courses are the main concern of this paper. This is because the student participation and their satisfaction in online learning activities will give impact to their academic performance. Hence, this research is conducted among students at Universiti Teknologi MARA Pahang to study the following research objectives:

a)    to identify the type of online learning activities used among students at Universiti Teknologi MARA Pahang
b)    to investigate the approaches used by lecturers to encourage student participation in online learning at Universiti Teknologi MARA Pahang
c)    to identify the level of satisfaction among students towards online learning at Universiti Teknologi MARA Pahang

## 2.    Literature Review

Information and communication technologies, particularly those related to the internet, have changed the way services are delivered in higher education. With the advancement of web applications, students have been exposed to new features that support and change their learning environment. Among the important advancements in the digital age is online learning. Murray, Pérez, Geist, and Hedrick (2012), proposed that by 2014 most of the students will take some classes online. According to study done by Han and Johnson (2012), online learning has increased the opportunities for more learner which is more cost effective and convenient than traditional educational environment. Chakraborty and Nafukho (2014) stated that the professional and educational communities of learning need to fully utilize the virtual learning environment. Understanding what students expectation from a university online environment should increase their satisfaction and consequently have a positive impact on student's academic performance. Therefore, this study will try to look on student's participation in online learning in depth. Using the concept of continuous learning, the government encourages all the public and private higher education institutions to establish one centre of life long learning (Chai & Poh, 2009).

Online learning is described by most authors as an access to learning experiences via the use of some technology (Benson, 2002; Carliner, 2004; Conrad, 2002). Some researchers describe online learning as a "wholly" online learning (Oblinger & Oblinger, 2005), whereas others simply refer as the technology medium or context with which it is used (Lowenthal, Wilson & Parish, 2009). Research has argued that online learning is best accomplished when learners participate and collaborate (Bento & Schuster, 2003; Leidner & Jarvenpaa, 1995; Webster & Hackley, 1997). Many researchers seem to agree on that participation is a key driver for learning (Stefan, 2008). Davies and Graff (2005) examined the relationship between the level of online participation and grade. Furthermore, Vonderwell and Zachariah (2005) studied factors that influence learners' participation.

In the past several years, online learning systems have been taking central stage in higher educational institutions (Geri & Gefen, 2007). The significant growth of online learning at higher educational institutions around the world remains at record high (Anastasiades, Vitalaki, & Gertzakis, 2007, Littlejohn, Falconer, & McGill, 2008; Shee & Wang, 2008). Not only is online learning environment highly teacher-centered, it also requires students to take a more active role in their learning. In particular, students have to realize their responsibility for

guiding and directing their own learning (Hartley & Bendixen, 2001; Hsu & Shiue, 2005), for time management (Hill, 2002; Roper, 2007), for keeping up with the class, for completing the work on time (Discenza, Howard, & Schenk, 2002) and for being active contributors to instruction (Garrison, Cleveland-Innes, & Fung, 2004).

Fredericksen, Pickett, Shea, Pels, & Swan (2000) indicated that online learning courses contain learning activities that are not only Web-based activities or online learning activities. It appears that in the context of education, there is a consensus in literature that learning activities refer to the actions and operations that individuals perform in order to achieve a desired learning outcome mediated by educational tool (Lapre, Mukherjee & VanWassenhove, 2000). In the context of online learning, such activities are mediated by online learning tools (Lam, 2004).

## 2.1    Student participation in online learning

Some researchers asserted that the lack of face-to-face interactions in online learning may reduce instructional effectiveness for students of certain learning style (Bullen, 1998; Terrell & Dringus, 2000; Ward & Newlands, 1998). Though most online courses do not require students to have high level computer skills in completing the courses, they nevertheless require students to become familiar with essential information technological skills such as using e-mail, participating in online chatting, posting to a Web-based discussion board, and using word processing, presentation and spreadsheet software.

Participation has been argued to be an intrinsic part of learning (Wenger, 1998). Stefan (2008) has described different ways of online participation which are participation as accessing e-learning environments, participation as writing, participation as quality writing, participation as writing and reading, participation as actual and perceived writing and participation as taking part and joining in a dialogue. He also defined online participation as a process of learning by taking part and maintaining relations with others. It is a complex process comprising doing, communication thinking, feeling and belonging, which occurs both online and offline.

Several terms have been used in referring to online participation such as e-learning, virtual learning, mobile learning and web-based learning. The concept of delivery information and online classes is not new. Basically, students actively participate in online activities such as viewing lecturers' recorded video, presenting material in a synchronous online meeting, interactive online task, reflection activities, critical thinking acitivites and problem solving tasks. A study conducted by Allen and Seaman (2010) involving 2,500 colleges and universities revealed that 63 per cent of reporting institutions confessed that online learning is a critical part in their long-term strategy. Besides that, Aslanian and Clinefelter (2012) revealed that 80 per cent of the students who lived 100 miles from campus agreed that they found online learning as a lower cost, shorter duration of course and flexibility acted as motivators for the online students in this study. Another 37 per cent of the study participants agreed that they face less interactions with instructors and classmates. While another 25 per cent complained about poor communication and feedback from instructor and 20 per cent reported that they felt less attention, less motivation and faces challenges in virtual learning environment. The study has concluded that the implementation of virtual learning has its challenges and opportunities.

It takes time to adopt and adapt changes in technologies. Not only does online learning allow institutions to serve more students at a lower expense, but it also improves teaching methodologies, increase the learning involvement, and enhance communication among students and instructors, sometimes even beyond the interaction possible in a traditional classroom. (Chakraborty and Fredrick Muyia Nafukho, 2014). Findings from a research done by Dobbs, Waid and del Carmen (2009) concluded that students who are new to the online courses tend to favour the traditional methods rather than the online courses, as they find the onlines courses challenging. However, throughout the semesters, as the number of online courses taken by the students increases, the preferences change and they are more likely to favour online courses compared to the structured on-campus courses. This indicates that the more exposure on online courses of the learner, the higher the preferences level of the learners towards the online courses

and thus promote the active participation from the students. Thus, the academician should develop strategies to encourage student participation online. This can be done via rapidly intraction between instructor and students, frequently feedback, time spent for each task given, high expectations, rewards and respect for diverse talents (Chen, Lambert, and Guidry, 2010). Beside that Thormann, (2012), suggested a few techniques on getting high participation from online learners:

a) Incorporate discussion in the graded assignment. Marks given will be an incentive for the students to participate.
b) Recognize active learners and frequently provide positive feedback or appraise them on their contribution and active participation so as to encourage others to participate too.
c) The students are matured enough and can be appointed as a moderator, encourage them to actively respond to a forum or an informal discussion among their peers.

However, according to Morrison (2012), online students failed to participate in a discussion because of the limited time given by their lecturers to respond to the questions posted. Some students, due to their existing task, such as classes and other assignments feel pressured by the limited time given to them. Educators are advised to look into this matter if active participation is needed by the learners. Simonds and Brock (2014) claimed that age, experience and exposure towards different online activities have a significant influence on student participation and choices of activities. They claimed that adult learners usually prefer to watch lectures through videos, while younger generations favour an interactive approach. Instructors have to be creative in applying the appropriate learning strategies to encourage them to participate actively.

## 2.2 Type of online learning activities among students

The study done by Hrastinski (2008) reveals numerous practices have been used to encourage student participation in online classes. Abrami, Bernard, Bures, Borokhovski, and Tamim (2011) stated that it is important to have frequent interaction in online learning and observation by instructor. There are four types of interactions that can help increase student participation online such as: 1) student faculty interactions which include communication in the form of chats, emails, and video conferences; 2) student content interactions that requires learners' accessibility with ease to the course materials and information provided in online class environment; 3) technology student interactions which enable learners to navigate the learning management system and various technological tools that aid in delivering content; and (4) interactions among students which involve the communication and exchange of information in chat sessions, discussions, groups work and team activities among the learners. (Abrami et al. 2011; Angelino, Williams and Natvig, 2007; Chen, 2007 in Chakraborty and Nafukho, 2014).

In order to increase student participation, Simonds and Brock (2014) also posted a list of activites used in the online learning activities such as: 1) Live chats led by the instructor, 2) Live lectures/audio session, 3) Watching archived lectures asynchronously, 4) Instructor comments in online discussion boards, 5) Student comments in online discussion boards, 6) Emails from the instruction, 7) Emails from the students/peer, 8) Exploring web links/online materials, 9) Viewing pre-recorded video lectures, 10) Listening to pre-recorded audio files, 11) Reading lecture notes, 12) Telephone converstation with the instructor, 13) Telephone conversation with the students, 14)Participating in online small group projects, 15) Reading power points and 16) Reading acourse texts and articles.

## 2.3     Approaches Used to Encourage Student's Participation in Online Learning

In the educational institutions, students traditionally receive instructional input during a lecture (Balan, Clark and Restall, 2015). Lecturers will discuss and explain the learning outcome in class and then apply this information to activities, problems, and tasks in subsequent learning sessions. At present, in Malaysian scenario, the educational institutions have begun supporting conventional teaching methods with e-learning environments (Khalid, Yusuf, Heng and Yunus, 2006). The Ministry of Education (MOE, 2012a) has encouraged the educational institutions to utilize the Information Communication Technology (ICT) in teaching and learning in order to create capable and innovative graduates. There is no doubt that technology plays an important role in changing the way learning content is presented (Kamaruddin, 2010); however, there is still much scepticism amongst Malaysians over the efficiency of using online learning as a medium of teaching and learning (Chung, 2008; Luo, Boland and Chan, 2013).

One of the methods to encourage student's participation in online learning is by introducing the authentic learning strategies in the curriculum. A few researchers (Ma and Lee, 2012) have found that through authentic and active learning strategies, students become more professional and have enhanced their communication skills as well as demonstrated improvements in academic achievement, interpersonal relationships and student self-esteem (Prince, 2004).

As such, the multimedia and web technologies have emerged to support incorporating a blended learning environment that is authentic and relevant to students to utilize their skills like critical thinking, contextual learning and communication (Mahajan, 2012). Butler (2009) added that when carefully and properly designed, technology can be used to create an authentic learning experience with real-world relevancy that is able to motivate and engage student participation. The web-based systems are capable of becoming platforms for efficient practices (Collis and van der Wende, 2002) and offer advantages such as being reusable and accessible when used to create online learning environments (Kerdprasop and Kerdprasop, 2008).

Moreover, research conducted by Heidi and Mai (2015) with the students at the Faculty of Creative Multimedia in Multimedia University, Malaysia found that through authentic blended learning environment, students became more engaged with the content and were actively involved in their learning process. In this research, they designed the authentic blended learning environment by adapting Herrington and Kervin's (2007) in which the learning environment comprised of the interactive learning modules, implementation of module content in the classroom via discussion, blogs for documentation of the students' learning process, a facebook page for students to conduct online discussions and a problem-based class project for students to solve in group. Their project which was called The MILE Project discovered that students responded positively and showed strong support to the use of authentic blended learning in their learning environments.

Another technique to encourage blended learning environment is by engaging students in the pre-learning methods. Balan et al. (2015) has discussed on the Pre-learning methods to the students of an undergraduate entrepreneurship course in Australia. The Pre-learning methods require students to learn course materials before a class session. It includes the Flipped Learning and Team-Based Learning (TBL). According to Prince (2004, p. 223), pre-learning teaching methods have become increasingly popular because these methods prepare for active learning strategies in class, where students do meaningful learning activities and at the same time think about what they are doing. The main elements in this method are the student's activity and engagement in the learning process.

Basically, the idea of having The Flipped Learning and Team-Based Learning is to reverse the traditional teaching method. According to Bishop and Verleger (2013), in Flipped Learning, students learnt the content of instruction using online resources, then they apply the learning in classroom based collaborative activities, which include solving problems and relevant learning tasks mainly carried out as group activities. Whereas TBL requires students to

pre-learn course materials and then used this materials for structured activities to help students fully understand course materials and their application.

## 2.4 Student's satisfaction using online learning

Student's satisfaction is also another important element in online learning implementation. In order to fulfil student's satisfaction in online learning, it is important for the instructor to give clear instruction regarding how to access course content and learning activities (Chakraborty and Nafukho, 2014). In the same study, the authors agreed that the satisfaction level among students increased when they could easily navigate the videos containing guide in using online learning. One of the major successful indicators is the use of video conferencing that can enhance the interaction among users. Besides that, online learning is also more humanistic, can be personalized and is real time connection where the students can be fully engaged in the learning process (Chakraborty and Nafukho, 2014). With the advancement of information and communication technologies, no one can perfectly predict the future of higher education.

Many of the respondents' reports of satisfaction and frustration were tied to the environmental nature of online classes with satisfying experiences described in terms of flexibility and frustration being described as a personal disconnect or some variant of that theme. Other descriptions were related the superiority or inferiority of instructional design and online learning environment(s). Those concepts were commonly reported in the answers to the questions where respondents were asked to describe their overall levels of satisfaction and frustration with online education. Those overall themes are reported in the following paragraphs followed by some specific instances of satisfaction and frustration. A study by Tohm (2012) revealed that most of the online users satisfied with online learning because of the flexibility of the medium, felt very connected to the others in the online classroom community while another with the same overall satisfaction level reported feeling that their interaction with the instructor was more individualized and personal.
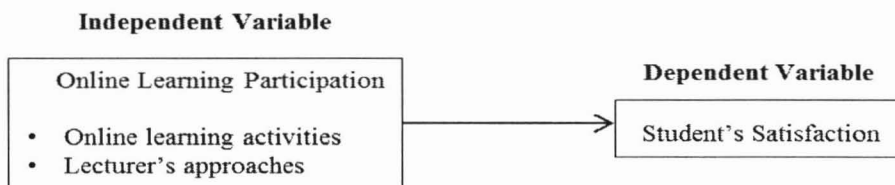
**Independent Variable**

| Online Learning Participation | **Dependent Variable** |
|---|---|
| • Online learning activities<br>• Lecturer's approaches | Student's Satisfaction |

**Fig. 1** Theoretical Framework of the research

Above Figure 1 shows the theoretical framework for "Online Learning: Student's Participation Satisfaction". The variables used are adopted from literature reviews.

## 3. Method

The questionnaires were distributed and were collected directly by using self-administered approach to diploma program students at UiTM Pahang. 400 sets of questionnaire were distributed and 367 were usable for this research. The questionnaire was designed to be completed in approximately 10-20 minutes. The distributed questionnaires were collected back immediately on the same day after the respondents had completed them. The questionnaire comprised five close-ended sections and the total number of question is 42. The breakdown of the section in the questionnaires is as follow:

**Table 1.** Instrument section

| Section | Item | Number of question | Type of question |
|---------|------|--------------------|------------------|
| A | Demographic | 5 | Closed-ended question |
| B | Online learning activities | 14 | 5-point Likert Scale |
| C | Student's participation in online learning | 10 | 5-point Likert Scale |
| D | Lecturer approach in online learning | 8 | 5-point Likert Scale |
| E | Student's satisfaction on online learning | 5 | 5-point Likert Scale |

The questionnaires were also completed by the students during the class period on the date the survey was circulated. The data from the questionnaire were analysed using the Statistical Package for Social Sciences (SPSS), version 22.0. Descriptive measures such as the mean and standard deviation were used to identify the activities in online learning, lecturers' approach in online learning and also student's participation in online learning.

## 4.    Findings and Discussion
### 4.1    Reliability Analysis

The result of the Cronbach's Alpha is shown in Table 2. It shows that Cronbach's Alpha for the followings sections is acceptable and reliable. Sekaran (2003) suggested that reliability which is less than 0.60 can be considered poor, those in the 0.70 range can considered acceptable and those over 0.80 can be considered as good.

**Table 2.** Internal consistency of the construct research survey instrument (reliability analysis result)

| Construct/Scale | N of items | Cronbach's Alpha | Result |
|-----------------|------------|------------------|--------|
| Online learning activities | 14 | .746 | Acceptable |
| Student's participation in online learning | 10 | .711 | Acceptable |
| Lecturer approach in online learning | 8 | .819 | Acceptable |
| Student's satisfaction on online learning | 5 | .774 | Acceptable |

### 4.2    Demographic Analysis

Table 3 below shows the demographic profiles of the respondents (n=367) in Section A. The first five questions of the survey asked on students' gender, age, program code, credit hour to be completed in the current semester and the time spent for online learning among diploma program students at Universiti Teknologi MARA Pahang.

**Table 3.** Demographic profiles of the respondent's gender (n=367)

| Gender | Result (percent) |
|--------|------------------|
| Male | 28.1% |
| Female | 71.9% |

**Table 4.** Demographic profiles of the respondent's age (n=367)

| Age | Result (percent) |
|-----|------------------|
| 18-20 years old | 87.5% |
| 21-23 years old | 12.5% |

**Table 5**. Demographic profiles of diploma program code (n=367)

| Program code | Result (percent) |
|---|---|
| AC110 | 1.9% |
| AS117 | 7.4% |
| AS120 | 21.8% |
| AT110 | 5.2% |
| BM111 | 3.3% |
| BM112 | 0.5% |
| BM118 | 27.8% |
| BM119 | 5.7% |
| CS110 | 10.6% |
| EC110 | 13.9% |
| SR113 | 1.9% |

**Table 6.** Demographic profiles of the respondents' credit hour to be completed in current semester (n=367)

| Credit hour to be completed in current semester | Result (percent) |
|---|---|
| Less than 10 credit hour | 3.5% |
| 11 - 20 credit hour | 76% |
| 21 - 30 credit hour | 20.2% |
| More than 31 credit hour | 0.3% |

**Table 7.** Demographic profiles of the respondent's time spend for online learning (n=367)

| How much time spent for online learning | Result (percent) |
|---|---|
| Less than one hour per day | 56.4% |
| 2 – 3 hours per day | 40.1% |
| 4 – 5 hours per day | 2.7% |
| More than 6 hours per day | 0.8% |

It can be concluded from Table 3, 4, 5, 6 and 7, most of the respondents are female (71.9%). In addition, most of them are from age range between 18-20 years old students (87.5%) and the highest program code involved in this online learning survey is BM118 (27.8%), followed by AS120 (21.8%) and EC110 (13.9%). Majority of the respondents have 11-20 credit hours to be completed in current semester (76%). It also was found that most of the respondents have spent less than one hour per day for online learning activities (56.4%).

## 4.3 Research Objective 1: To identify the type of online learning activities among UiTM Pahang students.

Table 8 shows the type of online learning activities involved by the diploma program students at UiTM Pahang.

**Table 8.** Online learning activites frequencies (n=367)

| Type of online learning activities | N | Percent | Percent of cases |
|---|---|---|---|
| Lectures | 89 | 5.0% | 24.3% |
| Online presentation | 86 | 4.8% | 23.4% |
| Notes | 238 | 13.4% | 64.9% |
| Group discussion | 166 | 9.3% | 45.2% |
| Online test/quiz | 269 | 15.1% | 73.3% |
| Online database | 18 | 1.0% | 4.9% |
| Tutorial/exercise | 216 | 12.1% | 58.9% |
| Assignments | 226 | 12.7% | 61.6% |
| Blogging | 34 | 1.9% | 9.3% |
| Social media | 136 | 7.6% | 37.1% |
| Instant messanging | 161 | 9.0% | 43.9% |
| Email | 142 | 8.0% | 38.7% |
| Total | 1781 | 100.0% | 485.3% |

a.   *Dichotomy group tabulated at value 1.*

Based on Table 8 above, the most popular type of online learning used among diploma program students was online test or quiz (15.1%). This is followed closely by online notes (13.4%) and online assignment (12.7%) as online learning activities among diploma program students at UiTM Pahang.

This indicated that online test or quiz was the main type of online learning activity among students at UiTM Pahang. However, the students have also been involved in searching online notes and it also shows that the lecturers preferred to conduct online assignments as one of the online learning activities for students.

Furthermore, based on the Table 9 below, it shows the familiarity of online learning activities among diploma program students at UiTM Pahang. This result is obtained from analysis of the data using One-Sample Statistics analysis. Majority of the students clearly stated that they used online learning to register for courses (M=4.06). Second most activity that students are familiar with was participating in chat sessions with classmates (M=3.64). Thirdly, they are familiar with submitting course assignments online and reviewing chapters online (both M=3.56).

**Table 9.** Online learning activites (One-Sample Statistics, n=367)

| Online learning activities | N | Mean | Std. Deviation |
|---|---|---|---|
| Sharing assignment with other classmates (via forum/ discussion) | 367 | 3.11 | 1.153 |
| Sharing assignments with other classmates (via email) | 367 | 2.45 | 1.148 |
| Participating in chat sessions (with lecturers) | 367 | 2.89 | .990 |
| Participating in chat sessions (with classmates) | 367 | 3.64 | 1.100 |
| Reviewing chapters slides online | 367 | 3.56 | .968 |
| Submitting course assignments online | 367 | 3.56 | 1.038 |
| Register for courses | 367 | 4.06 | .964 |

| | | | |
|---|---|---|---|
| Reading other classmates' discussion in group forum | 367 | 2.93 | 1.112 |
| Reading lecturers discussion in group forum | 367 | 2.97 | 1.086 |
| Reading emails from other classmates | 367 | 2.46 | 1.057 |
| Checking grades online | 367 | 3.50 | 1.109 |
| Reading emails from the lecturers | 367 | 2.98 | 1.090 |
| Watching video online | 367 | 3.30 | 1.251 |
| Developing personal blog or website | 367 | 2.44 | 1.139 |

These findings show that the online learning activities among students at UiTM Pahang which were found in this research such as register for courses, participating chat sessions with classmates, submitting course assignments online and reviewing chapters slides online were important as part of students learning time. Therefore, the lecturers could implement these online learning activities to their students in order to increase the student participation in online learning at university.

**4.4     Research Objective 2: To investigate the lecturers approach used to encourage students participation in online learning at UiTM Pahang.**

**Table 10.** Lecturers approach (One-Sample Statistics, n=367)

| Lecturers approach to encourage students participation in online learning | N | Mean | Std. Deviation |
|---|---|---|---|
| Lecturer uploads assignment in group forum | 367 | 3.83 | .776 |
| Lecturer always explains in detail about the assignment given in online discussion | 367 | 3.68 | .803 |
| Lecturer provides question and answer session in group discussion | 367 | 3.56 | .797 |
| Lecturer always gives feedback in group discussion | 367 | 3.56 | .790 |
| Lecturer use simple word to deliver their message in group discussion | 367 | 3.85 | .768 |
| Lecturer understands students' difficulty in online learning | 367 | 3.68 | .837 |
| Lecturer gives supervision on chapters in group discussion | 367 | 3.54 | .727 |
| Lecturer gives answer/results/marks for assessment | 367 | 3.67 | .797 |

Table 10 shows the approaches used by educators to encourage student participation in online learning. The most highly used was "the lecturer used simple word to deliver their message in group discussion" (M=3.85). Secondly, the "lecturer will upload assignment in group forum" (M=3.83) to encourage students participation in online learning and third highest approach used was "lecturer always explained in detail about the assignment given in online discussion and lecturer understand students' difficulty in online learning" (M=3.68).

**4.5     Research Objective 3:  To identify the level of satisfaction among students toward online learning at UiTM Pahang**

**Table 11.** Descriptive statistics

| | n | Mean | Std. Deviation |
|---|---|---|---|
| Mean_satisfaction | 367 | 3.6300 | .53498 |

| | | | |
|---|---|---|---|
| Mean_participation | 367 | 3.2973 | .42727 |
| Valid N (listwise) | 367 | | |

Table 11 is a comparative table to illustrate the level of students' satisfaction and their participation in online learning. The overall mean for student participation is (M=3.29) which resembles moderate participation in using online learning. In comparison with student satisfaction using online learning which is (M=3.63), it shows that majority of the student fairly satisfied with online learning. Thus, this finding has revealed the current level of satisfaction among students towards online learning at UiTM Pahang.

## 5.    Conclusion

As a result, this research has identified that the students are fairly satisfied and has moderate participation towards online learning at UiTM Pahang. Thus, the lecturer should take concern on the current level of students' satisfaction towards online learning to increase the student participation in online learning activities at UiTM Pahang. As far as the researchers are concerned, this research was conducted to identify the type of online learning activities used among students at UiTM Pahang, to investigate the approaches used by lecturers in encouraging student's participation in online learning activities at UiTM Pahang and to identify the the level of satisfaction among students towards online learning at UiTM Pahang.

This research has found out that the main type of online learning activity among students at UiTM Pahang was online test or quiz. However, the students were also involved in searching online notes as the preferred type of online learning activities at UiTM Pahang. Furthermore, the lecturers also preferred to give online assignments as one of online learning activities for students. In addition, majority of the students have stated that they were familiar with register courses online. Other than that, the most favourable approach used by lecturer to encourage student participation in online learning was by using simple word to deliver their message in an online group discussion.

Thus, future study can investigate the factors which can influence the students' satisfaction towards online learning activities. Besides that, the researcher can conduct another research to identify if there is any relationship between student participation and academic performance at UiTM Pahang. These research findings can also improve the academic performance among students when they participate in online learning activities.

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