

SATISFACTION WITH ONLINE LEARNING AMONG MDAB STUDENTS AT UITM KELANTAN: TRANSITION FROM HIGH SCHOOL TO UNIVERSITY

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Abstract: The purpose of this study is to examine the students' satisfaction towards online learning specifically the *Mengubah Destinasi Anak Bangsa* students at Universiti Teknologi MARA Cawangan Kelantan. Satisfaction is measured by the most satisfied online learning method, student satisfaction with online learning materials, and student satisfaction with student-lecturer engagement. This research is a case study that used a quantitative method. Only one particular group, *Mengubah Destinasi Anak Bangsa* students from only one Universiti Teknologi MARA (UiTM) branch campus, UiTM Cawangan Kelantan, were involved in this study. Research findings showed that pre-recorded video is the most satisfying online learning method, while clear and understandable guidelines and rubrics for each project is the most satisfying online learning material.

Keywords: MDAB, learning materials, learning method, lecturer engagement, online learning.

1. Introduction

Universiti Teknologi MARA (UiTM) has introduced the MDAB program known as “Mengubah Destinasi Anak Bangsa” which was inspired by Y.Bhg. Tan Sri Dato’ Prof Ir. Dr Sahol Hamid Abu Bakar, the Vice Chancellor of UiTM in 2010. The main objective of this program is to assist those who wish to learn more at university but do not fulfil the criteria due to the weak grades in the Malaysian Certificate of Examination (SPM). This program was also initiated to allow students from low-income backgrounds to pursue their studies. Two types of courses are offered without fees which are pre-diploma in science and pre-diploma in commerce.

A variety of research studies have been conducted on MDAB students on a range of subjects, such as measurement of learning approach (Abedin, Jaafar, Husain, & Abdullah, 2013), language learning strategies (Yunus & Singh, 2014), academic achievement (Azman & Arifin, 2017), students' success and failure in Mathematics (Nor, Razali, Talib, Ahmad, Sakarji, Saferdin, & Nor, 2019) and several more.

MDAB students are making a leap from high school to university with a whole new environment such as faculty, students, lecturers and academic schedule. Most recently, due to the pandemic of Covid-19, learning from conventional classrooms has shifted to online learning. Internet connection, adaptability struggle, time management, distraction, computer literacy, learning style and communication are several issues resulting from online learning. In view of the new environment and new learning method, this paper examines students' satisfaction with online learning.

Various studies have been conducted worldwide on student's satisfaction. The goal should be to try to enhance student's satisfaction in order to retain students and increase the performance of university (Douglas, McClelland & Davies, 2008). The following satisfaction measurements are addressed in this paper:

- a) What is the most satisfying online learning methods?
- b) What elements of learning materials correlated with the degree of student satisfaction?
- c) What elements of student-lecturer engagement correlated with the degree of student satisfaction?

The structure of this paper is organized as follows: section 2 is literature review, section 3 is research methodology, section 4 is result from empirical analysis, section 5 is discussion, section 6 is conclusion and section 7 is acknowledgement.

2. Literature Review

2.1 Objectives of MDAB programme

This programme is specifically designed for students who have not fulfilled the entry requirement for UiTM diploma programmes as well as students from low income and poor family. Students still have a second opportunity to continue their studies (Maidinsah, Embong & Wahab, 2014; Siew-Eng, Mahdi, Mohamadin & Manaf, 2015) in order to boost their living conditions with the engagement of lecturers and some financial support from the government (Azman & Arifin, 2017).

For instance, Julaihi, Mohamadin, Mohamed and Karim (2017) conducted an analysis on the performance of MDAB students at UiTM Sarawak for nine semesters and the data showed that providing financial support to those from the lower income group greatly allowed those students who were originally under-qualified to pursue their tertiary studies.

In addition, Azman and Arifin (2017) carried out an analysis on the achievements of the pre-diploma science students at UiTM Negeri Sembilan and compared with it the results of 2014, 2015 and 2016 which concluded that the engagement of the management plays an important role in maintaining the quality and academic results.

Finally, the MDAB programme should be continued in the years to come to ensure that underprivileged and underperforming students have the opportunity to pursue their studies. Siew-Eng et al. (2015) highlighted that MDAB programme has educated and improved the academic skills of school leavers to the degree needed to successfully attend science-based diploma courses and this program should be continued.

2.2 Challenges in moving from conventional teaching classes to online classes

MDAB students are making a leap from high school to university with a whole new environment such as different academic schedule, large number of students for some classes, homework non-checking, heavy reading required from textbooks, newspaper, journals and several more. To show this, McMillan (2013) investigated the degree to which school-to-university transition is experienced as emotional and proposed that transition students need a roadmap and guidance, as well as peer mentoring as a way to help transition students. Moreover, Briggs (2012) explored the challenges in ensuring a successful transition from school or college to university and indicated that the creation of the identity of higher education learners is crucial for student achievement.

With the struggle to embrace a new environment, MDAB students need to follow a shift in learning patterns from traditional classes to online classes due to the rising cases of Covid-19 in Malaysia. Many scholars have addressed the issue of online learning. For instance, Daniel (2020) stated that the Covid-19 pandemic has disrupted the lives of students in different ways, depending not only on their level and course of study, but also on the extent to which they have reached in their programmes.

Furthermore, a study conducted by Amita (2020) identified the students' e-learning experience; non-accessibility of e-learning tools such as home laptop/desktop, electricity problem, weak internet connection problem, problem of choosing the best sources due to data flooding and lack of adequate technical skills. Some students demonstrated their conviction in poor online classroom infrastructure facilities in their home such as internet strength, regular power supply and devices such as laptops and smartphones (Gautam & Gautam, 2020).

Moreover, Besser, Flett and Zeigler-Hill (2020) illustrated that the challenges for higher education students in their adaptability to a sudden, abrupt transition away from traditional learning approaches to an online learning approach and found that there are salient individual differences in adaptability and students with higher levels of this capability may be better able to thrive in uncertain and ambiguous times that may include an element of threat.

Universities are responsible for helping students through online learning in order to make them more effective and provide high quality education. For example, the research conducted by Aristovnik,

Keržič, Ravšelj, Tomaževič, and Umek (2020) revealed that students are mostly satisfied with the assistance provided by teaching staff and the public relations of their universities during the worldwide lockdown and transition to online learning.

Also, Imsa-ard (2020) explored the expectations of Thai university students about the sudden transition to 'forced' online learning as a result of the Covid-19 situation and found that most students were pleased with the valuable feedback and assistance they obtained from their instructors. It is found that online learning is not a hindrance but a blessing to academic excellence in the face of calamity such as the Covid-19 pandemic (Kamal, Shaipullah, & Truna, 2020).

Finally, Shehzadi, Nissar, Hussain, Basheer, Hameed and Chaudhry (2020) examined the relationship between ICT, e-service quality and e-information quality in the e-learning of students in higher education institutes of Pakistan and found that students' satisfaction enhances university brand image.

2.3 Satisfaction towards online learning

Many researchers from various countries have carried studies on the satisfaction of students with online learning. This paper will divide student satisfaction into three parts.

2.3.1 Student satisfaction on online learning methods

Learning is gaining knowledge through study, experience or being taught. A traditional classroom is where an instructor controls the flow of knowledge and information delivered by an in-person instructor. The classroom is a place where the student's time, place and pace of learning remain constant. The Covid-19 pandemic has drastically changed education with a dramatic increase in online learning. For online learning methods, live streaming, video recording, voice recording, text message and slide presentations are some of the examples. This can be delivered to students via a variety of platforms such as Google Classroom, Google Meet, ZOOM, Facebook, WhatsApp, Telegram and Learning Management Systems (U-Future for UiTM).

For example, Mishra, Gupta and Shree (2020) studied the perceptions of teachers and students about online teaching-learning modes at Mizoram University, India. The study found that 50% of teachers recorded their lectures on YouTube as web-based teaching, while 28% of students watched presentations and recorded videos from all sources on YouTube, and students found that videos uploaded by teachers are fascinating as they could see them again, pause and take notes when needed. Students preferred pre-recorded lectures uploaded to Google Classroom and YouTube compared to other methods, because this method would give them time to listen to the lectures before their classes (Chung, Subramaniam & Dass, 2019). In addition, Islam, Kim and Kwon (2020) reported that students prefer pre-recorded video lectures to live ZOOM lectures; 53.8% chose pre-recorded video lectures, 7.7% chose live ZOOM lectures, and 30.8% chose both pre-recorded and ZOOM lectures when they were asked to select their preferred method of learning.

Furthermore, Almusharraf and Khahro (2020) assessed the level of post-secondary student satisfaction with online learning platforms and learning experiences during the novel coronavirus pandemic Covid-19 in the Kingdom of Saudi Arabia (KSA) and reported that participants were most satisfied with Google Hangouts for lectures, followed by Google Classroom and LMS (Moodle) for course management and assessment.

Moreover, Hayashi, Garcia, Maddawin and Hewagamage (2020) conducted a survey in Sri Lanka covering both state and non-state higher education institutions and found that the use of platforms requiring additional costs was lower and some faculty tried low-cost smartphone solutions, such as audio-recorded and PowerPoint presentations, to reduce data consumption.

Finally, Amita (2020) highlighted the result of the survey and found that the faculty should prepare video lectures, making learning easier compared to PDFs and PPTs, as well as engaging online classes through platforms such as ZOOM/Hangout/Cisco WebEx. Aristovnik et al. (2020) revealed that students were mostly satisfied with real-time video conferences followed by video recordings, presentations, and written communication, while the least are satisfied with audio recording.

2.3.2 Students satisfaction of learning materials

The course materials obtained by a student when a course is delivered online are the first thing they look at to get a sense of the course ahead of them. The materials must contain a significant part of the introductory, clarifying or support example of exercises. Preparation of handouts required extra work, which some teachers were not prepared to do (Misha et al., 2020). Previously, Amita (2020) highlighted the results of the survey that the faculty should prepare its own study material in a precise, lucid and short form instead of providing bulky PDFs; avoid sending irrelevant and out of syllabus study material; use graphics and diagrams to make study notes more interesting; prepare and make accessible study materials/learning tools in different forms such as pdf/word/ppt notes.

Next, Kauffman (2015) examined performance and satisfaction within the online learning environment for adult learners and suggested that courses should be structured around reading materials, lectures and assignments organised into units with clear learning goals in mind. Also, Li and Tsai (2017) reported that students with different purposes, motivations, and preferences may exhibit different behaviours when accessing material like lecture slides, video lectures, shared assignments, and forum messages which revealed that students viewed the learning materials (lecture slides and video lectures) more often than other learning materials (shared assignments and posted messages).

Finally, Lee (2014) analysed the level of satisfaction of graduate students with online learning associated with human factor and design factors and found that the level of satisfaction of students is closely linked to clear guidelines for assignment, rubrics and positive feedback.

2.3.3 Students satisfaction on student-lecturer engagement

The first challenge when it comes to online learning is communication. As an example, Adnan and Anwar (2020) examined the attitudes of undergraduates and postgraduates towards compulsory digital and distance learning courses during Covid-19. The findings of the study highlighted that in addition to technical and monetary issues, students also reported a number of other difficulties, such as lack of interaction with the instructor, response time and lack of traditional classroom socialization. Moreover, lack of proper interaction with instructors is another major concern related to online learning, and students must have the opportunity to ask questions and expect timely answers (Aristovnik et al., 2020). In addition, the timeliness of the communication response rate and the ability to obtain information were crucial to student satisfaction (Bickle, Rucker & Burnsed, 2020).

Next, Dhawan (2020) conducted a SWOC analysis to understand the strengths, weaknesses, opportunities and challenges associated with online learning during the crisis, based on secondary data such as journals, reports, search engines, company websites and scholarly articles, research papers and other academic publications. The results showed the strengths include educators can use a combination of audio, videos, and text to reach out to their students in this time of crisis to keep a human touch on their lectures; weaknesses are e-learning can hinder communication between the learner and the educator, that is, direct communication and human touch are lost; opportunities as teachers can practice technology and design a variety of flexible programs to better understand students; and challenges as lack of quality standards, quality control, development of e-resources, and delivery of e-content.

Additionally, Dziuban, Moskal, Thompson, Kramer, DeCantis and Hermsdorfer (2015) incorporated latent trait models using the image analysis procedure and computation of Anderson and Rubin factors scores and the findings identified three underlying satisfaction components: students expect instructors to adopt a facilitative role in their teaching (engaged learning), satisfied students who recognize their abilities and accomplishments in a balanced contract arrangement that they assessed by the degree of agreement between them and the instructor (agency), and transactional contract with its evaluation determined by the degree to which the obligations of the course have been met (assessment).

Besides, Chen, Peng, Yin, Rong, Yang and Cong (2020) suggested that interaction environment which refers to the effective communication environment in the process of knowledge acquisition must be improved since it can improve students' learning enthusiasm and concentration. Likewise, Dickinson (2017) put forward what instructor can do to have a positive impact on students' success in online classes by being more thoughtful in communication tone to make students feel more welcome and valued in online courses. Finally, Misha et al. (2020) stated that students' perceptions reflected that

teachers should build friendship and, if possible, shed light on the environment of groups, apps or any platform.

3. Research Methodology

This research is a case study that used a quantitative method. It is a case study since only students from one particular group, MDAB students, were involved. Only a small number of MDAB students from only one UiTM branch campus, UiTM Kelantan, were involved in this study.

3.1 Sample

The main objective of this case study was to measure student satisfaction, specifically MDAB students at UiTM Kelantan, towards online learning amid Covid-19. The MDAB students shifted from high school to university and faced new environment and learning process.

The study sample included 250 MDAB students enrolled in October 2020. All the students who participated in the survey are currently pursuing online courses at UiTM Kelantan. There are currently six classes for MDAB students pursuing a pre-diploma in commerce.

3.2 Survey

An online survey technique has been used to collect information about the satisfaction of students towards online learning. The instrument used in the study is Google form which consists of four sections of the self-constructed questionnaires: section one - personal information; section two - the most satisfactory method of online learning; section three - determination of elements of learning materials that are correlated with the degree of student satisfaction; and section four - determination of elements of student-lecturer engagement that are correlated with the degree of student satisfaction.

To gather a variety of feedback, the questionnaire contained both closed and open-ended questions. It comprised a total of twenty-five questions and three open-ended questions. In open-ended responses, students expressed what they considered were the strength of the chosen online learning method (second section); what they considered were the strength elements of the online learning material (section three); and what they considered were the strength elements of student-lecturer engagement (section four). The questionnaire was sent directly to the WhatsApp group by an online instructor.

3.3 Data analysis

The close ended questionnaire was based on Likert scale ranging from 1 “strongly disagree”, 2 “disagree”, 3 “agree” to 4 “strongly agree”. The higher the score, the greater the respondents agreed with the statement. The data obtained from an online survey was interpreted as the frequency of student responses to the most satisfied online learning method. For the strength elements of the online learning material and the strength elements of student-lecturer engagement, the score from Likert scale was summed up. Simple mathematical calculation was applied to this research, where the mean is calculated by adding the Likert Scale score and dividing it by the number of students.

4. Result

4.1 Results of student's satisfaction on online learning methods

There were 250 MDAB students who enrolled in October 2020, but only 193 responded to the questionnaire. About 76.2% (n = 147) students were female, while 23.8% (n = 46) were male. Of the total 193 students, 99% (n = 191) were between the age range of 18-20, whereas 0.5% (n = 1) were 21 years old and 0.5% (n = 1) were 22 years old.

Table 1 shows the frequency and mean for each learning method based on student satisfaction. Pre-recorded video had the highest mean of 3.31 for the most satisfied learning method, while the lowest mean was for voice message with 2.88.

Table 1: Most Satisfaction Online Learning Method

Learning Method	Frequency	Mean
Live streaming	131	3.30
Pre-recorded video	156	3.31
Voice message	43	2.88
Text message	56	2.99

One open-ended question asked students why they are most satisfied with the chosen online learning method. Illustrative examples of student feedback reflecting this question are presented below:

- The pre-recorded video can be watched repeatedly.
- Pre-recorded video can be watched at any time especially when internet connections are unavailable during class.
- I feel easy to understand when I look at the face of my lecturer.
- If I don't understand when I do the exercise, I can refer back to the video.

4.2 The result for student's satisfaction on online learning materials

Table 2 shows the score and mean for the elements of learning materials that are correlated with the degree of student satisfaction. "Clear and understandable guidelines and rubrics for each project should be given" had the highest mean of 3.70 while the lowest mean was for "Learning materials (notes, pre-recorded video, voice recording) must be submitted before the class begins".

Table 2: Elements of learning materials that are correlated with the degree of student satisfaction

Learning Materials	Score	Mean
LM1 = Learning materials (notes, pre-recorded video, voice recording) must be submitted before the class begins.	661	3.42
LM2 = Learning objectives are defined before the new topic is started to give students an idea of the topic	684	3.54
LM3 = Exercise on each subject should be given to enhance student understanding	675	3.50
LM4 = Clear and understandable guidelines and rubrics for each project should be given	715	3.7
LM5 = The project sample should be given as a guideline	703	3.64
LM6 = The date of the quiz and the date of the test should be informed early for student preparation	698	3.60
LM7 = The quiz and test should be returned and discussed in order for students to learn from mistakes	712	3.69

One open-ended question asked students what is the best subject for the current semester and the justification for the subject chosen in terms of learning materials. Illustrative examples of student feedback reflecting this question are presented below:

- Lecturer sends a video before the class begins and the video is very easy to understand.
- The lecturer often gives exercises before the test.
- Lecturer gives exercise for each chapter.
- Clear explanation with several examples and exercise for each chapter.
- Lecturer always gives a pop-quiz.

4.3 The result for student's satisfaction on student-lecturer engagement

Table 3 shows the score and mean for the elements of student-lecturer engagement that are correlated with the degree of student satisfaction. "The feedback of the lecturer on student work is important" had the highest mean of 3.70 while the lowest mean was for "The lecturer needs to respond to the student's message or call promptly".

Table 3: Most Satisfaction Online Learning Method

Learning Method	Score	Mean
LS1 = The Lecturer must monitor student's attendance	698	3.62
LS2 = The lecturer needs to respond to the student's message or call promptly	645	3.34
LS3 = The feedback of the lecturer on student work is important	708	3.67
LS4 = The lecturer's knowledge of course material is important	698	3.62

One open-ended question asked students what characteristics do students admire most in the lecturer. Illustrative examples of student feedback reflecting this question are presented below:

- Understand the condition of students who have online learning difficulties.
- Lecturer needs to be more friendly with students in terms of communication in order to avoid being uncomfortable with students if they want to ask questions and share the challenges they face.
- Sporting, because it will make students want to take part in classes and attract students to study subjects taught by them.
- Often send instructions to prevent me from postponing my homework.
- Not easily angry and link external problems with students.

5. Discussion

In order to summarize the outstanding contributions of this paper based on the previous literature, a relationship between the existing literature was made. The results from this *study* are consistent with several prior *studies*. For online learning methods, live streaming, video recording, voice recording, text message and slide presentations are some of the examples. *This study shows that pre-recorded video is the most satisfying learning method. The results are consistent with the findings of other studies by Chung et al. (2020) and Islam, Kim and Kwon (2020).* While the least preferred method was recording audio. Similarly, Aristovnik et al. (2008) agreed that audio recording is the least satisfactory of online methods.

The course materials obtained by a student when a course is delivered online are the first thing they look at to get a sense of the course ahead of them. The materials must contain a significant part of the introductory, clarifying or support example of exercises. *The results of this study showed "clear and understandable guidelines and rubrics for each project should be given" as the most satisfying online learning material for the student. Likewise, Lee (2014) agreed that clear guidelines for course assignments and assignment rubrics are important to making their learning satisfactory.*

The first challenge when it comes to online learning is communication. *The results of this study showed that "the feedback of the lecturer on students' work is important" as the most satisfying element of student-lecturer engagement. In fact, Chen et al. (2020) agreed that the feedback given by teachers for the homework was the primary factor influencing the sense of interaction experience. Finally, Bickle et al. (2020) agreed that students were satisfied with the online course when they had a sense of connection with the instructor, other students, and the course material.*

6. Conclusion

The MDAB students shifted from high school to university and faced new environment and learning process. The transition to higher education can be difficult for some students as the new environment and learning styles are different from their previous years of education. Struggling to embrace a new environment, MDAB students need to follow a shift in learning patterns from traditional classes to online classes due to the rising cases of Covid-19 in Malaysia. Satisfaction on the part of the students plays an important role when learning method, learning material and student-lecturer engagement are evaluated.

Lecturers are now forced to rely on technology and multiple platforms to engage students in learning and to improve their understanding of content. With all the options available to the modern lecturer, there is an application that is suggested for use which is Google Slides. It is a great tool that does not require a lot of data to download for students. The lecturer can pre-record their lectures, put pre-recorded videos in the slides, and let the student use the Google Collaborative Deck.

In order to identify the right technique when choosing delivery methods, the lecturer should really understand the learning pyramid. The learning pyramid consists of lectures, reading, audio-visual, demonstrations, discussions, practice, and teaching others. Moreover, the presentation, structure and content of the learning materials are crucial. Students should be able to access their course materials and have a clear idea of what is ahead of them and how they are going to study. At the beginning of the course, the lecturer should give advice on the planning of the timetable for the study. The lecturer should also set out clear assessment practices, including deadlines and assessment requirements.

Finally, effective communication with students in online classes should be a priority for lecturers, as it gives students a sense of community that is important to them. The lecturer can seek any chance to share stories, reply comments, and ask for feedback from students as a great opportunity for interaction.

Further research is needed to assess how to encourage MDAB student engagement in online discussions and interactions with their peers.

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