

Assessing the On-Campus Students' Satisfaction with Online Learning Mode during COVID-19

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ABSTRACT

COVID-19 pandemic has interfered with teaching and learning landscape in higher learning institutions. The spread of COVID-19 has forced governments of many countries to shut-down schools and put into effect remote learning or distance learning. The purpose of this study is to answer a specific question: are the on-campus students in Malaysia higher learning institutions satisfied with online learning mode? The study also investigates the effect of variables such as students' gender, level of study and specialization on satisfaction with online learning mode. A quantitative research method using survey design was adopted in this study. The study population is the total number of on-campus students from 14 selected universities in Malaysia. Cochran's formula was used to determine the sample size. A total of 412 questionnaires were distributed via online google form to all the respondents. The findings revealed that a significant number of the students were dissatisfied with online learning. More than 70% of on-campus students experienced boredom, loneliness and thus, dissatisfied with online learning approach provided by the university during the peak of the pandemic. The findings showed that more than 60% of the on-campus students were not satisfied with online learning mode due to family related issues and interrupted internet connections. Online learning remains the most viable method of teaching and learning during in COVID-19 pandemic. However, this mode of learning is plagued with numerous challenges. Consequently, students from conventional education system in Malaysia have difficulties adjusting and are less satisfied with online learning.

Keywords: *Online learning, Open and Distributed Learning, Satisfaction, COVID-19*

1.0 INTRODUCTION

Several factors help online education and learning to fail or succeed. Online education will be successful if instructors and students trust the medium, appreciate its functions on various online platforms, and satisfy the online experience. Online learning will flop if the online courses are not designed properly, no adequate training for faculty members, inadequate financial management and low student satisfaction with the online experience

by the students (Rovai & Downey, 2010). Educational platforms implementation and strategies in a higher educational setting can become problematic because of the beliefs and attitudes of the instructors, administrators and the students towards the instructional design and learning mode adopted by the school. Therefore, introducing new technology to augment teaching and learning should be done carefully and systematically to ensure success of students and educational institutions (Moawad, 2020; Al Meajel &

Sharadgah, 2018). The emergence of the COVID-19 pandemic has affected educational institutions, which has changed the manner of gaining knowledge.

University students in Malaysia experience higher level of anxiety and depression (Foong & Yit Han, 2021). In the same vein, Foong and Yit Han (2021)'s findings show that the levels of frustration in adjusting to online learning by students in conventional university in Malaysia has culminate to stress, anxiety, and depression. More than 50 percent of the students sampled experience stress and anxiety. Though, students' adjustment to teaching and learning method from conventional to remote learning may not be an easy journey, there is major agreement among school practitioners and district members that online courses have helped more students get back on track towards graduation by expanding credit recovery options during COVID-19 pandemic through distance learning (Simamora, 2020). As such, virtual learning platforms, has ushered in a "new normal" in education and a paradigm shift in learning. The inability of students to communicate or contact physically with their lecturers creates stress and leads to less motivation and confidence (Al-Khasawneh & Althunibat, 2020). As a result of these challenges, the present study intends to investigate on-campus students' satisfaction with online learning during COVID-19.

2.0 REVIEW OF LITERATURE

The new normal refers to the period in which every organization globally reconsiders their values and proposes to operate under a new reality brought about by the present situation to deliver its mission sustainably and successfully in the coming years. Education's new standard is the reality that higher institutions must endeavour to cope with because of the effect of COVID-19. This has created severe short-term financial and operational challenges for higher education institutions (HEIs). It has equally accelerated the impact of external financial, demographic, technological, and political trends on HEIs. Knowing the next thing to be done by higher

education requires risk-taking and premeditated speculation (Teachers Insurance and Annuity Association-of-America, 2020). For higher institutions to understand how to adapt to the COVID-19 effect, some leaders must evaluate if anything will be required to change in the institution's operating model, including their decision-making processes, organizational structure, and uses of capital to achieve their institutional mission and ensure financial sustainability. After shutting down campuses last spring, most institutions have undertaken meaningful efforts to conduct in-person and hybrid safely. Most institutions temporarily evacuated dormitories and reverted to remote learning as COVID-19 cases increased in their communities. Institutions have benefited despite the pandemic's ongoing challenges because educational leaders were able to carve out time to look beyond immediate demands and consider their institution's longer-term prospects (Teachers Insurance and Annuity Association of America, 2020).

2.1 Challenges of Open and Distributed Learning in Conventional/Traditional Tertiary Institutions

One of the most complex issues facing HEIs today is the introduction of Open or Distributed Teaching and Learning process into curriculum designed for conventional face-to-face education (Oblinger et al., 2001). The commonly reported problems include insufficient time for study, complications in accessing and using Information and Communication Technology (ICT), insufficient study material and ineffective feedback. Berge et al. (2002) classified challenges into pedagogical, philosophical, technical, socio-cultural situational, epistemological, and psychological. Information dissemination and technical competence, mostly in developing countries, are some other challenges presented by Open and Distributed Learning (ODL). The skills needed to operate the ICT tools for education needs as well as using network systems to share and access information are often regarded as technical competence. Possessing these skills is a

fundamental challenge to learners as they may not be able to adequately apply several digital tools, physical, and human resources involved for ICT (Musingafi et al., 2015).

In most dual-mode universities, ODL suffers from insufficient resourcing, inappropriate and focused planning, lack of efficient and effective monitoring processes at the stage of implementation (Wangenge-Ouma, 2012; Nage-sibande & Morolong, 2019). This problem affects the development and delivery and leads to a lack of confidence in its quality and value. Equally, inadequate funding is another challenge faced by ODL (Nyerere, 2016; Nage-Sibande, 2011).

Emotional or physical challenges have been another bottleneck since the beginning of ODL, most especially during this new normal period. For example, on-campus students encounter boredom and loneliness during the learning period. Students on and off-campus encountered similar problems, such as boredom and loneliness. There was no physical interaction with fellow friends like it used to be, making the whole learning process boring and dull (Allam, Mohideen and Kamal, 2020). In addition, off-campus students also face family and environmental issues such as domestic abuse, and a noisy environment will prevent students from giving their best and focusing during classes (Tang & Zuo, 2020). The inability of students to communicate or contact physically with their lecturers creates stress and leads to less confidence and motivation (UNGS, 2021). Notably, all these problems can affect students' satisfaction levels with ODL.

2.2 Theoretical/Conceptual Framework

Distributed learning (DL) is best understood within the context of sociocultural theories of learning. The combination of the social construction of knowledge by Vygotsky (1978), social learning theory by Bandura (1977) and social presence (Hostetter, 2013), bring about sociocultural theories of knowledge. Social constructivism proposes that the student internally constructs knowledge through interaction with others. It means students learn and attain higher levels of development

as they interact with adult and advanced peers. Constructivist theory suggests that human beings construct their knowledge internally from various stimuli and experiences in personally meaningful ways (Victor & Hart, 2018). In this learning model, instruction is learner-centred, which requires the instructional planner to provide avenues for social discourse that support individual learning and collective knowledge building. The social learning theory suggests that learning occurs through personal and environmental factors. Learned behaviour is reinforced through observing others and the learner's direct experience (Victor & Hart, 2018). High usage of mobile technologies and the internet in learning has broadened social learning theory to include technical concepts and terms (Victor & Hart, 2018). For instance, connectivism is a social learning theory that directly includes technology in its model (Downes, 2008). The theory extends learning to include online digital information and the knowledge gained using informal networks among people. Connectivism asserts that learning is a process of connecting information sources or nodes that reside in human beings and machines. From this kind of knowledge, we learn through connected or distributed means (Downes, 2008). The aspect of "social presence" refers to the level at which learners feel present in a learning situation. In physical class interactions, there is a high social presence because students can hear, see, and communicate (verbally and using non-verbal cues) with other learners. However, DL can lower social presence because there is a diminished level of direct communication. Social presence is a critical challenge in improving learners' performance in online learning (Hostetter, 2013). For instance, Zhao, Sullivan, and Mellenius (2014) identified three factors that contributed to collaboration in an online setting: participation, interaction, and social presence.

3.0 MATERIALS AND METHODS

A correlational survey design research design is adopted in the present study, using a cross-sectional survey design, in which data

collection is done at only one point in time from on-campus students on their satisfaction level with online learning during COVID-19 (Fowler, 2008; Creswell, 2014). The targeted population is the entire university students in Malaysia, while the study population is the total number of university students in 14 selected universities. Due to the large expanse of the geographical coverage of the population, the researcher did not have the statistics for the total number of students in Malaysian universities. Therefore, the researcher uses Cochran's formula to calculate the sample size. Since the population in this study is infinite, Cochran's formula was adopted as a mechanism to determine the sample size for the current study. The formula developed by Cochran (1963, as cited in Israel, 2003) is:

$$n_0 = \frac{z^2 pq}{e^2}$$

Where n_0 is the sample size, z is the selected critical value of desired confidence level, p is the estimated proportion of an attribute that is present in the population, $q = 1 - p$, and e is the desired level of precision (Cochran, 1963, as cited in Israel, 2003). From this, the researcher arrived at 412 as the sample size. A non-probability convenient sampling technique was used in the present study. The sample for the study is 412, while the participants are students in some selected higher institutions in Malaysia. Due to the nature of the present study, the researcher used an online google form as the medium for data collection for three weeks. The entire week is 70% of the proposed sample size of 288 participants. The demographics in the survey include gender, race, level of study, age, course, state, and university (private or public).

4.0 FINDINGS

This part addresses the data analysis and findings for this study to answer two main objectives of the study which are: to investigate on-campus students' satisfaction with online learning during COVID-19 and the effects of variables such as students' gender, level of study and specialization on

satisfaction. The data returned were analysed by using the Statistical Package for the Social Science (SPSS, version 25). In this study descriptive statistics were used to address the first research question meanwhile the independent sample t-test ANOVA are used to answer the second research question.

4.1 Demographic Information of the Respondents

Table I presents the demographic information of the respondents comprising of gender and age cohort. The result revealed that out of 412 participants who answered the questionnaire, the majority of the respondents were females, accounting for 313 participants. In contrast, to the male participants who were 94 as shown in Table I. Chi-square analysis comparing respondent and sample frame data revealed that a significantly larger percentage of female students returned surveys than did their male counterparts ($\chi^2 = 15.844$, $df = 1$, $p < .001$). In addition, the level of study of the respondents is categorized as Foundation, Year1, and Year2. The majority of the respondents, 220 (53.4%), are in Foundation study, this is followed by Year 2 students, 96 (23.3%), and Year 1 students, 77 (18.7%).

TABLE I
Demographic Information of the Respondents

	Frequency	Percent (%)
Gender		
Male	94	22.8
Female	313	77.2
Total	412	100
Level of Study		
Foundation	220	53.4
Year 1	77	18.7
Year 2	96	23.3
Total	412	100

4.2 On-Campus Students' Satisfaction with Online Learning during COVID-19

The study answered the first research question, which is to investigate on-campus students' satisfaction with online learning

during COVID-19, by conducting descriptive analysis.

TABLE II
On-Campus Students' Satisfaction with Online Learning during COVID-19

	Never	Rarely	Sometimes	Always
Do you feel unmotivated to study during this current pandemic?	11 (2.7%)	37 (8.9%)	237 (57.5%)	127 (31%)

The analysis result in Table III shows the outcome of students' satisfaction with online learning during COVID-19. The majority of the respondents are not satisfied with online learning during COVID-19. A total of 228 (55.3%) students out of 412 were indifference to online learning while 81 (19.7%) of them were dissatisfied and 103 claimed to be satisfied with online learning during the pandemic. However, most of the students are willing and highly motivated to study during the pandemic as shown in the Table I.

TABLE III
Students' Satisfaction with Online Learning during COVID-19

	Dissatisfied	Satisfied	Indifference	Mean (\bar{x})	SDev.
How satisfied are you with the online mode of learning	81 (19.7%)	103 (25%)	228 (55.3%)	2.94	.810
What is your level of satisfaction with internet / network availability while attending online learning	105 (28.8%)	63 (17.3%)	244 (53.8%)	2.96	1.302
Generally, how satisfied are you with the educational progress?	114 (27.7%)	20 (4.9%)	291 (70.6%)	2.7	.60

Majority of the students also showed that they were not satisfied with the internet/network availability while attending online learning. About 244 students claimed they were not sure of their satisfaction with the internet and availability of network during online learning, while 105 out of all students were dissatisfied with the internet and availability of network.

On the question of general satisfaction with educational progress, a total of 291 respondents, accounting for 70.6% of the students were indifference towards progress of their education so far. 114 (27.7%) of the respondents were not satisfied with their educational progression, and only 20 (27.7%) out of the entire sample express satisfaction with the educational progress.

The majority of the students prefer to be on campus even if online classes continue. This showed that the students preferred on-campus as compared to online study mode. Some were worried that remote learning experiences offered during the pandemic would negatively reflect on courses that are online by design.

4.3 Effects of Variables such as Students' Gender and Level of Education on Students' Satisfaction

The second research objective was to examine the students' gender and level of education on the student satisfaction. The researchers adopted the independent sample t-test in SPSS to analyse the mean scores to highlight the significant difference in gender (male/female). On the other hand, ANOVA was employed to investigate the significant difference in the level of satisfaction based on students' educational attainment, presented in Table V. The findings of the Levene's test for equality of variances in Table IV indicated that the equality of variance between to two samples (male and female) is assumed with no significant p-value of 0.291. This indicates that an important assumption of t-test has been fulfilled.

TABLE IV
Independent T-Test Result on the Gender of
the students

	Gender	N	Mean	Std. Dev.	Std. Error Mean
Online Satisfaction	Male	94	3.1986	.57904	.05972
	Female	318	3.1635	.59660	.03346

Based on the Table IV, the findings of the variance indicated that the difference in the level of study of students and their satisfaction with online learning is not significant. The result was not significant, $F(3, .133) = .044$, $p = .945$, which is < 0.05 . Thus, it can be deducted that there is no statistically significant difference in the respondents' satisfaction with online learning irrespective of the level of study.

TABLE V
ANOVA Result in Terms of Level of Study of
Students

	N	Mean	Std. Dev	Std. Error
Foundation	220	3.1652	.59891	.04038
Year 1	77	3.2078	.48678	.05547
Year 2	96	3.1562	.63606	.06492
Year 3	19	3.1754	.70596	.16196
Total	412	3.1715	.59212	.02917

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.133	3	.044	.126	.945
Within Groups	143.968	408	.353		
Total	144.101	411			

However, the t-statistics result showed no significant differences in the satisfaction mean score for male and female students when it comes to online learning. The result $t = (.504)$, $df (= 410)$, $p = .615$ (two tailed) at 95% confidence interval.

5.0 DISCUSSION AND CONCLUSION

This study investigates the on-campus students' satisfaction with online learning

mode during the pandemic. The purpose of the study is to determine on-campus students' satisfaction with online learning mode, and to find out whether demographic factors such as gender and level of study of the students has a significant contribution to students' satisfaction with online learning mode. The findings of this study show that majority of the on-campus students were not satisfied with online learning mode. The findings also revealed that gender and level of study did not play any significant role in on-campus students' satisfaction with online learning mode during COVID-19 pandemic. In the online context, however contrast to the findings of this research, satisfaction was found to be one of the most significant considerations influencing the continuity of online learning (Parahoo et al., 2016). Previous research on online learning has shown that learners' satisfaction is a critical indicator of learning achievements and the success of online learning system implementation (Ke & Kwak, 2013). To meet learners' real learning needs and create an effective learning environment, a growing body of literature has been conducted to examine various determinants of learner's online satisfaction (Jiang et al., 2021). In addition to the insignificant differences in the students' satisfaction in terms of gender, findings further showed that most of the students were dissatisfied with online learning. More than 70% of on-campus students encountered boredom, loneliness and thus, were dissatisfied with the online learning approach provided by the university during the peak of the pandemic. The findings showed that a quantum number of the on-campus students were not satisfied with online learning mode due to family related issues and interrupted internet connection.

The implication of this is that the shift in education landscape "occasioned" by COVID-19 has impeded learning for on-campus students. Although the students have high motivation to learn, but the online teaching and learning medium, curriculum as well as online instructional design are not suitable for on-campus students. It is suggested that curriculum design and management of online

learning and by extension online education outcomes must be realigned with the challenges faced by on-campus learners. Adequate training must be provided for teachers, lecturers, instructors, as well as administrators. Appropriate and suitable medium of instruction must be identified, tested and verified by all stakeholders.

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