

Stress, Satisfaction and Performance Level by Using Online Learning Among Undergraduate Students During Pandemic COVID-19

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Abstract

World has been stricken on pandemic COVID-19 in 2019 which has made several changes or given impact to many sectors such as economy and education. In education setting, people were forced to make a change in learning and teaching process for example the transition from face-to-face to online learning. Because of this, there was a need to evaluate whether stress, satisfaction, and performance level by using online learning to make sure changes in learning and teaching process are successfully delivered to students. This study was performed to explore stress, satisfaction, and performance level by using online learning among undergraduate students during pandemic Covid -19. Based on the research done, students showed moderate level of stress, satisfaction and performance using online learning. But students from rural area showed low performance because of low internet stability. Online learning can be imposed when there are conducive facilities provided to students. It is advisable for the authority to look more into these matter in the future. Recommendation for future studies should undergo deeper on students' stress, satisfaction, and performance level on online learning.

Keywords: Stress, Satisfaction, Performance, Online Learning, COVID-19, Malaysia

Introduction

Online learning has been used widely and extensively during pandemic Covid-19. Even though it has been introduced several years before pandemic happened but not many people or educational institutions used it. Numerous schools and institutions were forced to temporarily close because of the Covid-19 pandemic epidemic. There is concern that this entire current semester, or perhaps more in the future, might be lost because of the many places of the world that are affected. Numerous colleges, universities, and schools have stopped offering in-person learning. To ensure that learning would not be interrupted, such closure hastened the creation of online learning environments. Many schools are now interested in finding the most effective ways to distribute course material online, engage

students, and administer exams. Thus, many people include students must adopt this new way of learning.

A study by Moy & Ng (2021) was to see what factors were linked to mental health (depression, anxiety, and stress) among Malaysian university students. Most participants had a positive attitude about e-learning but a negative one with Covid -19. Data in the study showed that the COVID-19 epidemic had a significant impact on university students' mental health. Besides that, it is very important for educational institutions to assess students' satisfactions and performances by using online learning so that any problems encountered can be solved immediately. Therefore, this study was conducted to investigate stress, satisfaction, and performance level by using online learning among undergraduate students in Sultan Ahmad Shah Islamic University (UnIPSAS) during pandemic Covid -19.

Research Background

The use of online learning is not only applicable to schools but also any institutions related to learning that use online platforms to deliver knowledge. Several applications have also been introduced during pandemic Covid-19 such as Zoom, Google Meet, Google Classroom and so on. However, what is the exact definition of online learning? Online education is described as education offered via the use of the internet for teaching and learning in an online setting. This includes students' online learning that is not contingent on their physical or virtual co-location. The teachers create instructional modules that promote learning and participation in a synchronous or asynchronous setting, and the information is provided online (Singh & Thurman, 2019). Online learning may be seen of as a tool for making the teaching–learning process more student-centred, inventive, and adaptable (Dhawan, 2020).

Learners from low-income families and disadvantaged groups are the more likely to suffer during online learning as they may not afford high-speed internet connection and required technical gadgets. It widens gap between privileged and unprivileged learners (Jena, 2020). A research by Nambiar (2020) explores the attitudes and concerns of college and university professors and students about attending online programmes. The findings reveal that quality and timely interaction between students and professors, technical assistance availability, organised online class modules, and adjustments to allow the conduct of practical lessons are all significant for teacher and student satisfaction with online classes.

The goal of a study by Darkwa & Antwi (2021) was to evaluate the efficacy of classroom learning during the coronavirus pandemic to the efficiency before the pandemic at the University of Cape Coast. Students' performance was also compared in both teaching and learning approaches. Classroom learning was found to be more effective than internet learning. Furthermore, the learners performed better academically in the classroom than online, while the difference was not statistically significant.

One study conducted has look into students' perspectives on their online learning experiences and obstacles during the Covid-19 epidemic, as well as their preferred learning method between online and face-to-face sessions (Habidin et al., n.d.). The findings suggest that students are usually happy with their online learning experience and rate it as satisfactory, with live classes being preferred.

Study by Paschal & Mkulu (2020) aimed to investigate online classes during the COVID-19 pandemic in different universities in Africa with a focus on five universities. Students learnt more in less time and loved their lessons more when ICT-based education was used, according

to the findings of the study. Despite this, the majority of participants indicated that students in African higher education institutions had difficulty using the E-learning technology system.

Besides system, other challenges might be internet connection. According to Lim, (2020) the main issue is that some of the students live in areas where internet connection is limited. They find it challenging to reach out for online assessments and courses.

This article by Simamora (2020) will look at student essays regarding the obstacles of online learning during the COVID-19 epidemic in the form of viewpoints or replies. This study used fifteen students from the Fundamentals of Education I course as examples, all of whom were actively engaged in online learning activities. This paper has shown a variety of responses to the challenges students face while studying online, including the positive and negative effects of online learning, economic circumstances, anxiety during online learning, the need for the government to think and plan, the risk of user data security, the transition from face-to-face classes to online learning, capabilities, discovering effective online learning media, and expectations. Therefore, this study has three objectives as follow:

1. To examine stress level during online learning among undergraduate students during pandemic COVID-19.
2. To study satisfaction and performance level by using online learning during pandemic COVID-19.
3. To study performance level by using online learning among undergraduate students during pandemic COVID-19.

Methods

A survey study was conducted on 495 respondents from all states in Malaysia. This study was also conducted online by using Google form that has three sections, Section A, Section B and Section C by using questionnaire that was adapted from (Oducado & Estoque, 2021) . Section A includes demographic data gender, age, household incomes, faculty, educational background, states, and current academic results. Section B is about internet usage and Section C is stress, satisfaction, and performance level. The link was distributed to undergraduate students by using google form platforms. The data was distributed and collected within one month. For descriptive analysis, the data was computed by looking at percentage stress, satisfaction, and performance level by using online learning among undergraduate students during pandemic COVID-19. As for crosstabulation, we looked at crosstabulation of students' family income and stress level, students' family income and satisfaction, students' family income and performance, and internet usage and states.

Results

Table 1 shows percentages of stress, satisfaction, and performance level by using online learning among undergraduate students during pandemic COVID-19. Firstly, the analysis showed among all respondents, 2.8% had low stress, 49.9% had moderate stress and 47.3% had high stress. Then, 5.6 % had low satisfaction, 60.6% had moderate satisfaction and 33.7% had high satisfaction. In addition, 4.8% had low performance, and 78.6% had moderate performance and 16.6% had high performance scores based on the Online Learning During Covid-19: Stress, Satisfaction dan Academic Performance Questionnaire. From the data, it shows that among undergraduate students had moderate level of stress, moderate level of satisfaction and moderate level of academic performance.

Table 1

Percentages of Stress, Satisfaction and Performance Level by Using Online Learning Among Undergraduate Students During Pandemic COVID-19

Items	Scale	Percent
Stress	Low	2.8
	Moderate	49.9
	High	47.3
Satisfaction	Low	5.7
	Moderate	60.6
	High	33.7
Academic Performance	Low	4.8
	Moderate	78.6
	High	16.6

From the table below, students come from B40, M40 and T20 household showed that most of the students experienced moderate level of stress which are 181, 48 and 18. Then, about 234 out of 495 of students that participated in this study show high stress level which comprised of 47.27% of the total sample.

Table 2

Crosstabulation of students' family income and stress level

Items	Scale	Total
B40	Low	9
	Moderate	181
	High	173
M40	Low	4
	Moderate	48
	High	48
T20	Low	1
	Moderate	18
	High	13

Then, based on table 3 most of the undergraduate students that participated in this study showed moderate level of satisfaction regardless of their family income. For example, students from B40, M40 and T20 showed about 221, 57 and 22 respectively experienced moderate satisfaction in online learning during Covid-19 pandemic.

Table 3

Crosstabulation of students' family income and satisfaction

Items	Scale	Total
B40	Low	18
	Moderate	221
	High	124
M40	Low	10
	Moderate	57
	High	33
T20	Low	0
	Moderate	22
	High	10

Table 4 shows crosstabulation based on undergraduate students' family income and their performance while undergoing online learning during Covid-19 pandemic. From the data, it shows that respondents from B40, M40 and T20 experienced moderate in their academic performance which are 282, 82 and 25 respectively. About 4.85% from the total students that participated in this study show low in performance while undergo online learning.

Table 4

Crosstabulation of students' family income and performance

Items	Scale	Total
B40	Low	17
	Moderate	282
	High	64
M40	Low	6
	Moderate	82
	High	12
T20	Low	1
	Moderate	25
	High	6

Table 5 provides descriptive information about crosstabulation of internet usage by undergraduate students and states where they come from. Over half of the respondents come from Pahang State which is 305 students out of all respondents that participated in this study. Although undergraduates from Sabah have low participation in this study, the data shows that majority of respondents experienced internet instability during online learning (24 out of 36 students from Sabah state).

Table 5

Crosstabulation of internet usage and states

		Level of internet stability at home				Total
		Very unstable	Unstable	Quite stable	Very stable	
Negeri	Selangor	0	2	17	3	22
	Johor	1	5	10	4	20
	Negeri Sembilan	0	5	4	1	10
	Melaka	1	0	1	0	2
	Pahang	12	81	185	27	305
	Terengganu	2	8	46	5	61
	Kelantan	0	4	13	0	17
	Perak	0	2	2	1	5
	Kedah	0	0	2	0	2
	Penang	0	1	1	0	2
	Sabah	1	23	11	1	36
	Sarawak	1	0	5	0	6
	Kuala Lumpur	1	0	2	1	4
	Putrajaya	0	0	1	1	2
	Labuan	0	0	0	1	1
	Total		19	131	300	45

Discussion and Conclusion

Importance And Significance Of The Study This study emphasises the significance of mitigating the moderate stress that students encounter when learning online during the COVID-19 pandemic. Failure to take action could result in higher stress levels and potential mental health problems, such as depression and anxiety, among students. Technology stress is a problem as well, especially when students may not have enough coping skills, which could result in social problems like substance misuse.

Regardless of financial level, students from low-income families report a moderate level of stress while learning online. This underlines the necessity of providing tailored assistance and interventions to ensure that students from underprivileged backgrounds have equal access to online learning materials and to lessen their stress levels. However, due to generation Z students' comfort and familiarity with technology, the majority of respondents stated happiness and performance with online learning.

A considerable number of students, notably in Sabah State, experienced internet instability, which developed as a critical component of online learning. For online learning to be successful, the government must provide reliable internet connectivity, especially in the education sector.

The learning environment needs to change and incorporate effective technologies to build sustainable human capital.

	<p>To detect any issues and address them as soon as possible, educational institutions must evaluate students' performance and satisfaction with online learning. In order to improve the efficiency of online learning, this study emphasises the significance of assessing students' experiences and making the required adjustments.</p> <p>Students may not have the necessary coping strategies to deal with technological stress, which could result in social problems like substance abuse. This emphasises the necessity of offering sufficient technical assistance and resources to guarantee students have a positive online learning experience.</p>
Contribution	<p>Insights on how online learning affects students' stress levels, satisfaction, and performance are provided by this research, which adds to the body of knowledge in the field. It improves the theoretical knowledge of how switching from in-person to online learning impacts students' educational experiences.</p> <p>The study offers insightful information about the particular difficulties and chances posed by the COVID-19 pandemic in the context of online learning. It provides a contextual understanding of how the pandemic has forced a switch to online learning and the effects of this change on students' academic performance and well-being. Additionally, it contributes to the contextual knowledge of the digital divide and the necessity for lawmakers and educational institutions to guarantee that all students, regardless of their socioeconomic background, have equal opportunity to engage in online learning.</p>
Limitation	<p>There is a limitation in this study. Inferential analysis should be used to look for generalization. Future researcher should explore more on this matter by using other potential variables.</p>

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