

# Perception, Challenges, and Satisfaction Towards Online Teaching among Health Sciences Lecturers

Nur Ayunie Nadira Mohd Nawi<sup>1</sup>, Nik Nur Sofiah Fitriza Wan Rosli<sup>1</sup>, Norhafizatul Akma Shohor<sup>2</sup>, Wan Marina Wan Ismail<sup>2\*</sup>

<sup>1</sup>Centre for Nursing Studies, Faculty of Health Sciences, UiTM Selangor Puncak Alam Campus, 42300 Selangor Darul Ehsan Malaysia

<sup>2</sup>Nursing Department, Faculty of Health Sciences, Universiti Teknologi MARA Puncak Alam Campus, 42300 Selangor, Malaysia

\*Corresponding Author's Email: wanmarina@uitm.edu.my

## ABSTRACT

**Background:** Educators and students, especially in higher education, are forced to shift their classes to online classes from the COVID-19 situation to maintain social distancing since the pandemic has evolved. However, this shifting process has been difficult for educators, as they need to reorient their teaching methods to achieve learning outcomes. **Objective:** Therefore, this research paper aims to evaluate the perception, challenges, and satisfaction of online teaching among lecturers with online questionnaires through Google Forms. **Methods:** A quantitative approach with a purposive sampling method and a cross-sectional study was conducted from March until July 2022. A total of 87 lecturers from the Faculty of Health Sciences at UiTM Puncak Alam were recruited using the questionnaires, which were Perceptions on Online Education, Challenges Faced by Teachers in Online Teaching, and Post-Teaching Phase. **Results:** The result revealed that lecturers' perception of online teaching was positive (2.013). However, some lecturers believed that online teaching did not help clear the students doubts. This study also revealed that lecturers faced challenges (2.063) when conducting online classes, but they were satisfied (2.903) with online teaching. **Conclusion:** It also concluded that there is no relationship between demographic factors and the lecturers' perceptions, challenges, and satisfaction with online teaching.

**Keywords:** Challenges; Covid-19; Higher Education; Lecturers; Online Teaching; Pandemic; Perception; Satisfaction

## INTRODUCTION

Online teaching is the process of educating others via virtual platforms, which has been widely used in higher education institutions since the coronavirus pandemic evolved. As the coronavirus or COVID-19 pandemic evolved, online teaching has become an important alternative for universities in Malaysia due to the Movement Control Order (MCO) by the government (Ramayah & Kumar, 2020). Some did not face difficult tasks or challenges during this process because they had already implemented online or blended learning before the pandemic. However, some institutions, lecturers, and students were not ready to adapt to the conditions, and it is, therefore, important to examine to what extent lecturers are prepared to teach online (Junus *et al.* 2021). Consequently, teachers face significant challenges in adapting to online teaching, maintaining a minimum of communication with students, and supporting students' learning and development (König, Jäger-Biela & Glutsch, 2020). In study sectors such as chemistry, physics, engineering, biology, computing, psychology, languages, nursing, medicine, and other allied professions, program outcomes stress the importance of developing theoretical (content) and practical (processes) aspects (Kelum, Rosham & Vesna, 2020). Therefore, it is important to identify the lecturers' adaptation in introducing lab-based practical experiments to students, the challenges they faced when they introduced them through online delivery, and the satisfaction level after online

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teaching, especially in achieving learning outcomes while maintaining a high-quality educational experience.

## **METHODOLOGY**

### **Study Design**

A cross-sectional study was conducted from March 2022 to July 2022 using an online questionnaire to collect data on socio-demographic information, perception, challenges, and satisfaction toward online teaching among lecturers in the Health Sciences Faculty of UiTM Puncak Alam.

### **Sampling Method**

Purposive sampling was used to select the participants based on the inclusion and exclusion criteria required for this study. This type of sampling was chosen since it allows the researcher to select the participants based on the purpose of the research and whether individuals or organizations could participate in the study.

### **Sample Size Calculation**

Raosoft software (2004) was used to calculate this study's sample size. Keeping the margin error at 5%, the confidence interval at 95%, and the population size at 123, the sample size was calculated as 94. The number of lecturers came from the current staff directory website of the Health Sciences Faculty (FSK) of UiTM (2021). The total sample size was 113 after considering the 20% dropout factor.

### **Inclusion and Exclusion Criteria**

Full-time lecturers were the inclusion criteria, and lecturers who are on leave entitlement (maternity leave, study leave, extended medical leave) were the exclusion criteria for this study.

### **Instruments Used**

Online questionnaires are created using closed-ended questions and distributed through social media such as WhatsApp and Email. This study adapted instruments from previous studies and modified certain parts to accommodate the current research. The questions were adapted from articles written by Dubey & Singh (2020), Hoe (2020), and Gurung (2021).

The questionnaire consisted of Sections A, B, C, and D. Section A is Socio-demographic data that contains seven questions; Section B is Perception towards Online Teaching (nine questions); Section C is Challenges towards Online Teaching (nine questions); and Section D is Satisfaction towards Online Teaching (five questions). A 5-point Likert-type system with a scoring range from 1–5 (strongly agree to disagree strongly) is used, and the mean of all the dependent variables was calculated. The mean value of less than 3 shows that lecturers had a positive perception, faced challenges while online teaching, and had good satisfaction with online teaching. This research has low risk since it only anonymously involved the participants' perceptions and self-evaluation.

### **Validation of the Instrument**

A pilot study was conducted to test the validity and reliability of the study. The Cronbach's Alpha obtained was  $\alpha = 0.74$ . The value of Cronbach's Alpha is between 0 and 1, and the proposed threshold value above 0.70 is considered good, representing high internal consistency (Dubey & Singh, 2020).

### **Ethical Consideration**

The ethical approval was obtained from the UiTM Research Ethics Committee before proceeding to the next process on 16<sup>th</sup> February 2022, with reference number FERC/FSK/MR/2021/0032.

### **Data Collection Procedure**

Started after gaining ethical approval from the UiTM Ethics Committee. The questionnaire was mailed to the targeted population, lecturers of the Health Sciences Faculty; however, the participants had the right to withdraw from the study. A pilot study was conducted to determine the validity and reliability of the instruments, and

improvements were made based on the obtained results. Data analysis and discussion were done after the completion of the data collection using SPSS version 25. The data were analysed using descriptive statistics, and Pearson Correlation was used to identify the relationship between the demographic data, namely age, teaching experience at university, and duration of conducting online teaching, and perceptions, challenges, and satisfaction towards online teaching among lecturers.

## RESULTS

The demographic data of the respondents who participated in this study (n = 87) are shown in Table 1. The highest number of respondents were female lecturers, with 71 (81.6%) participating, while 16 (18.4%) were male lecturers. Most of the lecturers, with 49 (56.3%) responses, were aged between 35 and 40 years old, followed by 23 (26.4%) lecturers aged between 41 and 50 years old, and the least of the lecturers, with 5 (5.7%) responses, were aged between 51 and 60 years old. The majority of the lecturers, which were 79 (90.8%) out of 87 respondents, had experience conducting online teaching for a duration between 2 and 5 years, while only one (1.1%) of the lecturers performed online teaching for 3 to 6 months. Almost half of the lecturers with 42 (48.3%) responses had teaching experience between 6 and 9 years, followed by 24 (27.6%) lecturers that had teaching experience between 2 and 5 years, and the lowest frequency was for lecturers that had teaching experience for 20 years and above with only 2 (2.3%) responses out of 87 respondents.

**Table 1: Demographic Data of Lecturers**

Demographic Characteristics	Variables	Frequency (N)	Percent (%)
Age	Below 35	10	11.5
	35 – 40	49	56.3
	41 – 50	23	26.4
	51- 60	5	5.7
Duration of online teaching	Less than 2 months <sup>3</sup>	0	0.0
	to 6 months	1	1.1
	7 months to 1 year	7	8.0
	2 to 5 years	79	90.8
	6 to 9 years	0	0.0
	10 years and above	0	0.0
Gender	Male	16	18.4
	Female	71	81.6
Teaching experience at university	Less than 1 year <sup>2</sup>	0	0.0
	to 5 years	14	16.1
	6 to 9 years	42	48.3
	10 to 14 years	24	27.6
	15 to 19 years	5	5.7
	20 years and above	2	2.3

As shown in Table 2, the mean value should be equal to or less than 3.0 to be considered a positive perception (Dubey & Singh, 2020). Based on the findings, five out of nine statements showed a positive perception of online teaching, and four statements showed a mean value of more than 3.0. Thus, the overall lecturers' perception of online teaching was found to be positive.

**Table 2: Frequency of Lecturers' Perceptions toward Online Teaching**

Questions	Frequency (%)					Mean	Std. Deviation
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree		
A good option to teach students during a lockdown	38	32	16	1	0		
	(43.7)	(36.8)	(18.4)	(1.1)	(0.0)	1.7701	0.78801
Diversifying lecturers' knowledge	31	33	21	2	0		
	(35.6)	(37.9)	(24.1)	(2.3)	(0.0)	1.9310	0.83238
Increase in the technical knowledge of the lecturers	30	53	4	0	0		
	(34.5)	(60.9)	(4.6)	(0.0)	(0.0)	1.7011	0.55227
Online teaching is helpful in completing the syllabus	19	38	22	7	1		
	(21.8)	(43.7)	(25.3)	(8.0)	(1.1)	2.2299	0.92386
Online teaching increases the communication groups between lecturers and students	2	7	22	39	17		
	(2.3)	(8.0)	(25.3)	(44.8)	(19.5)	3.7126	0.95123
Online teaching is helpful in clearing the doubts of the students	15	7	8	33	24		
	(17.2)	(8.0)	(9.2)	(37.9)	(27.6)	3.5057	1.42138
Online teaching is comfortable	35	32	14	5	1		
	(40.2)	(36.8)	(16.1)	(5.7)	(1.1)	1.9080	0.94785
Online teaching does not increase lecturers' burden	0	2	2	16	67		
	(0.0)	(2.3)	(2.3)	(18.4)	(77.0)	4.7011	0.63089
Online teaching does not increase the working hours of the lecturers	1	2	6	20	58		
	(1.1)	(2.3)	(6.9)	(23.0)	(66.7)	4.5172	0.81927
	<b>Total Mean Score</b>					18.1149	

Similar to the perception, Table 3 shows the mean value for the challenges, which should be equal to or less than 3.0 to be considered, as lecturers face challenges during online teaching. Based on the result, most of the statements showed a mean value of less than 3.0, and only two statements showed a mean value of more than 3.0, which were 3.1724 and 3.2184. Hence, overall, the lecturers faced challenges during online teaching.

**Table 3: Frequency of Lecturers' Challenges During Online Teaching**

Questions	Frequency (%)					Mean	Std. Deviation
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree		
Difficult to reach students in remote areas	66	16	3	1	1		
	(75.9)	(18.4)	(3.4)	(1.1)	(1.1)	1.3333	0.7099
Difficult to motivate students	48	35	1	2	1		
	(55.2)	(40.2)	(1.1)	(2.3)	(1.1)	1.5402	0.7440

Challenge to keep track of students' progress	39	32	10	3	3	1.8391	0.9985
	(44.8)	(36.8)	(11.5)	(3.4)	(3.4)		
The problem of electricity/internet connectivity	19	41	22	4	1	2.1609	0.8610
	(21.8)	(47.1)	(25.3)	(4.6)	(1.1)		
Lack of technical or software knowledge	17	42	21	3	4	2.2529	0.9671
	(19.5)	(48.3)	(24.1)	(3.4)	(4.6)		
Required more time in preparing course content	41	33	8	3	2	1.7586	0.9272
	(47.1)	(37.9)	(9.2)	(3.4)	(2.3)		
Lack of motivation in the online learner	69	12	5	1	0	1.2874	0.6271
	(79.3)	(13.8)	(5.7)	(1.1)	(0.0)		
Difficult to teach the numerical subject through online mode	4	24	26	19	14	3.1724	1.1433
	(4.6)	(27.6)	(29.9)	(21.8)	(16.1)		
Difficult to monitor discipline	5	22	24	21	15 (17.2)	3.2184	1.1756
	(5.7)	(25.3)	(27.6)	(24.1)			
Total Mean Score						18.5632	

As shown in Table 4, the mean value for satisfaction should also be equal to or less than 3.0 to be considered good satisfaction with online teaching. Based on the findings, most of the statements showed a mean value of more than 3.0, and only two statements showed a mean value of less than 3.0, which were 1.8506 and 2.6782. Therefore, in summary, most lecturers were satisfied with online teaching.

**Table 4: Frequency of Lecturers' Satisfaction toward Online Teaching**

Questions	Frequency (%)					Mean	Std. Deviation
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree		
My overall level of satisfaction with the online teaching method is excellent	3	21	31	18	14	3.218	1.0936
	(3.4)	(24.1)	(35.6)	(20.7)	(16.1)	4	
Online learning is an excellent mode of teaching to improve student learning and engagement	3	18	24	27	15	3.379	1.1022
	(3.4)	(20.7)	(27.6)	(31.0)	(17.2)	3	
I am satisfied with the Current assessment method used during online teaching	4	20	19	26	18	3.390	1.1847
	(4.6)	(23.0)	(21.8)	(29.9)	(20.7)	8	
I am satisfied with the outcome of the online teaching session	40	30	10	4	3	1.850	1.0290
	(46.6)	(34.5)	(11.5)	(4.6)	(3.4)	6	
I would prefer the current method of online teaching to continue for the upcoming semesters	21	20	17	24	5	2.678	1.2713
	(24.1)	(23.0)	(19.5)	(27.6)	(5.7)	2	
Total Mean Score						14.5173	

Relationship between demographic factors (age, teaching experience, and duration of conducting online teaching) and perception, challenges, and satisfaction towards online teaching. Overall, there is no relationship between the demographic variables and lecturers' perceptions, challenges, and satisfaction with online teaching since no significant value was obtained, and all the results show that the p-value is above 0.05.

**Table 5: Correlation between Sociodemographic Factors with Perception, Challenges, and Satisfaction toward Online Teaching**

Sociodemographic Factors	Pearson Correlation		
	Perception	Challenges	Satisfaction
Age	0.913	0.486	0.345
Teaching experience at university	0.486	0.828	0.378
Duration of conducting online teaching	0.227	0.735	0.192

*Correlation is significant at the 0.05 level (2-tailed) \**

## DISCUSSION

### Perception of Lecturers

Overall, lecturers' perceptions of online teaching were found to be positive. Most lecturers (n = 70. 80.5%) believed online teaching was a good option for teaching students during a lockdown. It is a good option for teaching during the lockdown period, which will be more helpful in completing the current semester's syllabus (Dubey & Singh, 2020). They also believed that online teaching diversifies their knowledge (n = 64. 73.5%) and increases their technical knowledge (n = 83. 95.4%).

In addition to that, the findings also revealed that lecturers believed that online teaching is comfortable (n = 67. 77%), but it does not help clear the doubts of the students (n = 57. 65.5%). The majority of lecturers also believed that online teaching increased their burden (n = 83. 95.4%).

### Challenges Faced by Lecturers During Online Teaching

Based on the findings in Table 3, most of the statements showed a mean value of less than 3.0. Only two statements showed a mean value of more than 3.0, which were 3.1724 and 3.2184. Hence, overall, most lecturers face challenges during online teaching. This is because it was found that lecturers faced difficulty reaching students in remote areas during online teaching classes (n = 82. 94.3%). Besides, it was also revealed that lecturers faced difficulty motivating students (n = 83. 95.4%) and faced challenges in keeping track of the students' progress (n = 71. 81.6%) during online teaching classes.

The findings also revealed that lecturers faced problems with electricity and internet connectivity (n = 60, 68.9%). It was also found that lecturers lack technical and software knowledge (n = 59. 67.8%), contributing to their online teaching challenges. In addition, the findings also revealed that most lecturers are facing challenges because of a lack of motivation among online learners (n = 69. 79.3%). Several lecturers are also facing difficulty teaching the numerical subject online (n = 28. 32.2%) and monitoring the students' discipline (n = 27. 31%).

### Lecturers' Satisfaction with Online Teaching

Based on the findings in Table 4, most of the statements show a mean value of more than 3.0, and only two out of five statements show a mean value of less than 3.0 (1.8506 and 2.6782). Thus, lecturers' overall satisfaction with online teaching is considered moderate. Most lecturers (n = 42. 48.2%) believe that online teaching is not an excellent mode of teaching to improve students learning and engagement. Besides, most lecturers (n = 44. 50.6%) are not satisfied with the current assessment method used during online teaching. However, some of them are satisfied with the outcome of the online session (n = 70.81.1%) and would prefer the current online teaching method to continue for the upcoming semesters (n = 41.47.1%).

## **Relationship between age, teaching experience, and duration of online teaching with perception, challenges, and satisfaction**

The majority of lecturers, whether they are young or old, have a favorable opinion of online instruction, which is consistent with the finding by Shambour & Abu-Hashem (2022), stating that instructors' views regarding the efficiency of online instruction compare favorably to traditional instruction regardless of their age. There is no denying that younger generations have had more exposure to technological advancements than the older generation, so hence, younger lecturers will undoubtedly respond better to the online teaching system. In contrast, older lecturers with more experience in face-to-face instruction will prefer in-person instruction over online classes.

All lecturers encountered challenges when delivering online instruction, particularly during the Movement Control Order (MCO) period. This condition has forced them to adapt to the new environment rather quickly. They are now in charge of keeping up with the most recent technological advancements to facilitate the teaching process in this new normal education system. Ramayah & Kumar (2020) noted that when lecturers were requested to teach online for the first time, the transition from classroom to online instruction presented new obstacles. According to Fleming, Becker & Newton (2017), age has little bearing on future use intentions or e-learning satisfaction. One argument is that using technology to enhance lecturers' skills and creativity made it easier for them to create instructional materials that gave students more chances to study and collaborate.

In a study by Shambour & Abu-Hashem (2022), instructors with much expertise in traditional teaching prefer face-to-face instruction over online instruction. In contrast, participants with less experience tend to support distance learning. They are struggling to stay current with technological developments and master the newest teaching technologies, such as Google Classroom, Webex, and Google Meet. It takes time for everyone to become adept at it and learn how to use it. Therefore, the institution's role in assisting lecturers with online teaching and learning is essential. Regardless of their prior teaching expertise, all lecturers have difficulty teaching online. This finding is corroborated by a study by Ramayah & Kumar (2020), who found that because lecturers have to set aside extra time to integrate technology and modify their courses for the online environment, aligning with their teaching methods and module content is difficult. However, it is indisputable that a lecturer will become more attentive to the problems that frequently arise throughout the teaching process as their career as a lecturer lengthens.

It is anticipated that lecturers with prior e-learning experience, particularly before the COVID-19 outbreak, will be able to perform and will not have a difficult time adapting to the situation; in fact, they will be able to serve better because of their prior experience in lesson planning. This assertion is consistent with a study in which the authors claimed that the unexpected switch from traditional to online instruction during the COVID-19 pandemic had a detrimental effect on the efficiency of teaching and learning based on the lecturers' reactions (Shambour & Abu-Hashem, 2021). This study also shows that there is no relationship between the duration of conducting online teaching and satisfaction. However, it is anticipated that the lecturers will be able to manage the challenges that constantly arise during their teaching sessions because they have extensive expertise in teaching online lectures. This assertion is consistent with the findings of another study showing instructors' inability to conduct online remote teaching and learning presented additional difficulty (Soliman, 2014).

As technology advances, lecturers have more planning and preparation tools at their fingertips, considerably improving their readiness and confidence to lead online sessions. This finding is consistent with an earlier study on Online Teaching Satisfaction amid the COVID-19 Pandemic: Evidence from a Vietnamese Higher Education Context, which found that teachers in the study could still conduct live online lessons despite having no prior experience teaching online (Pham & Van Nghiem, 2022). However, the lecturers may be better prepared to weigh the benefits and drawbacks of online classes if they have considerable experience teaching online courses and advanced technological skills.

## **CONCLUSION**

Lecturers' perceptions of online teaching are found to be positive. Although it increases the lecturers' burden and working hours, online education is helpful and improves the technical knowledge of the lecturers, especially those with minimal technology and software knowledge. However, lecturers also need help conducting online

classes as they face significant challenges with internet connectivity and students' self-motivation to learn. Apart from that, lecturers are satisfied with the online teaching classes, especially with the current assessment method used and the students' knowledge and engagement during the online courses. These findings also revealed no relationship between age, teaching experience, and duration of online teaching and lecturers' perceptions, challenges, and satisfaction with online education.

From this study, the lecturers will be able to identify the frequent challenges of conducting online classes, especially those requiring lab sessions and hands-on practical learning. This study will allow the lecturers to incorporate digital technology in education to ensure the quality of online nursing education and produce skilled and knowledgeable students and dedicated nurses in the future. Therefore, future studies should focus on exploring the effects of other factors that influence the lecturers' perceptions using data mining tools that can assist researchers with diverse interests and expertise in their work. This study can also be an indicator for future research to assess the association between the challenges lecturers face in delivering online teaching and its effect on the student's learning performance, especially in courses that require lab sessions and hands-on practical learning.

### Recommendation

This study can also be an indicator for future research to assess the association between the challenges lecturers face in delivering online teaching and its effect on the student's learning performance, especially in courses that require lab sessions and hands-on practical learning.

### Conflict of Interest

The authors agree that this research was conducted in the absence of any self-benefits, commercial, or financial conflicts and declare the absence of conflicting interests with the funders.

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