

## Article

# Challenges and Issues of Teaching and Learning during the Pandemic (COVID-19)

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**Abstract:** This study is conducted to investigate the effectiveness and readiness of teaching and learning among students during the pandemic (COVID-19) towards the online learning among hospitality and tourism students. A quantitative method was employed and students from the Faculty of Hotel and Tourism Management Penang Campus were chosen as the target sample. The sample size for this study was 430 and a total of 360 questionnaires were successfully collected with the return rate of 83.72%. Descriptive analysis was used to interpret the demographic data, Pearson Correlation analysis was employed to examine the correlation among variables, and multiple regression analysis was used to measure the overall relationship between independent and dependent variables. From these analyses, the three (3) variables (social presence, cognitive presence, and teaching presence) were found to have positive relationships with a student's learning experience. Overall, this study is important to fellow academicians, academic researchers, and practitioners in improving their methods of teaching and learning, assisting the students, and strengthening their teaching techniques in online learning.

**Keywords:** online learning; social presence; cognitive presence; teaching presence; learning experience



**Citation:** Lahap, J.; Hussin, T.S.T.; Said, N.M.; Ariffin, H.F.; Azmi, A. Challenges and Issues of Teaching and Learning during the Pandemic (COVID-19). *Sustainability* **2023**, *15*, 6543. <https://doi.org/10.3390/su15086543>

Academic Editors: Anna Visvizi, Linda Daniela and Zanda Rubene

Received: 29 November 2022

Revised: 15 February 2023

Accepted: 22 February 2023

Published: 12 April 2023



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## 1. Introduction

Despite the easing of restrictions on traveling and lockdowns by many countries, the phenomenon of the COVID-19 pandemic has changed many aspects of life, including the economy, society, technology, the environment, and politics. The world of academia and academic institutions is one of the entities that was affected by the COVID-19 pandemic. The pandemic originated in Wuhan, China, in January 2020; the virus was soon reported to be spreading to all over the world. In six months', the virus infected millions of people around the world. However, few cases were reported in Malaysia back in February 2020. The virus finally spread all over Malaysia, and as result the Malaysian government took the drastic measure to introduce the Movement Control Order (Lockdown), which began in 18 March 2020. Subsequently, public agencies and private companies were ordered to be closed and an emergency law was announced to the public that required everyone to work or learn from home. In relation to this development, kindergarten, schools (primary and secondary), and public and private universities were also mandatorily ordered to be temporarily closed. Hence, all students from different levels of education were required to study from home using any form of online learning platform. As such, this research has been carried out to examine the effectiveness of teaching and learning during the pandemic (COVID-19) with a focus on hospitality and tourism students in Penang. Hence, three (3) variables were adopted to examine the students' learning experience, namely: (a) social presence, (b) cognitive presence, and (c) teaching presence. Even though the pandemic is in transition to the endemic phase, documenting the students' experiences of online teaching and learning were found to be significant for future research.

In the context of a university, studying online poses several challenges, not only to students but also to the academicians. To understand better what online learning is, there

are several approaches that need to be adhered to. Online learning, which is better known as Open Distance Learning (ODL), includes live (synchronous) and pre-recorded classes (asynchronous); this method of knowledge transfer is called 'Electronic Learning'. There are issues that are known to influence the process of open distance learning positively and negatively. To support the contention, Hrastinski [1] has explained that there are two types of online learning: "offbeat" (asynchronous) and "simultaneous" (synchronous). The ontology of online learning for higher education in Malaysia was first introduced in the 1990s [2]. Since then, the use of online learning has gained popularity because it is easy of access, able to reach a larger audience, unique, and flexible [1,3]. Referring to the Malaysian Higher Education Blueprint 2015–2025, the Ministry of Higher Education has taken initiative by encouraging and supporting online learning in public and private universities as well as in continuous education [4]. However, there are several concerns about the implementation of online learning [5]. Internet access, the availability of information technology gadgets, internet accessibility, and students' demographic, geographical, and financial status were found to affect the effectiveness of students' readiness to adopt online learning among university students in Malaysia [6]. Financial issues were found to be the main problem faced by students [7]. Smith [8] revealed that students who are without proper internet access or monetary resources are less fortunate and that students from rural area are likely to experience difficulties during online learning. Many underdeveloped and developing countries acknowledge that they face many challenges in implementing online learning, with one of the most arguably agreed-upon issues being internet access [9]. Henceforth, only certain groups of students can continue to experience online learning [10].

Other studies have reported that due to the scarcity of resources (information technology gadget, internet coverage, internet accessibility), online learning poses several problems to students. In many circumstances, during the height of the pandemic many university students were left out as they did not have sufficient internet access and were unable to participate in online learning [4,11]. Surprisingly, it has been found that many university lecturers do not have the competency or experience to teach online, as they are used to teaching in the classroom [12]. A study by Kozan and Caskurlu [13] has suggested that in an online learning environment, lecturers must have the skills to prepare digital teaching materials and deliver online lectures, have access to information technology tools and a conducive teaching environment, and the ability to use e-resources that are abundantly available on the internet. To further explain the situation, the most important requirements in online learning are a powerful internet connection, wider internet coverage, and access to a secure internet connection [14]. In terms of human psychology, it was found that many lecturers experienced high levels of stress while conducting online learning [15]. For that reason, the stress level was not only felt by the students, but it was also experienced by academicians. Students that was most affected by the pandemic were from rural areas. In some cases, students were known to walk into the jungle, set a hut on top of the tree, or climb a hill to get internet coverage [6].

UNESCO (2020) has reported that more than 60% of students from different levels of education worldwide have suffered from the lockdown. In fact, many university students were found to have no computer devices and internet coverage, which is deemed to be compulsory for online learning [6]. A lack of information technology devices (etc. computer, laptop, tablet) and internet accessibility diminishes students' motivation to learn online [16,17]. To overcome these problems, it was suggested that governments of developing countries provide some proportion of their annual budget in assisting students (laptops etc.) and improving the telecommunication infrastructure (internet access), however, for some countries, such investments was found to be expensive [12,18,19]. Separately, developing e-learning materials and content poses several challenges to lecturers, because the majority of them were found to be skeptical towards online learning. Despite the easing of travel restrictions and lockdowns in many countries, the phenomenon of the COVID-19 pandemic has changed many aspects of life that includes the economy, society, technology, the environment, and politics [20]. The world of academia and academic institutions is one

of the entities that was affected by the COVID-19 pandemic. The pandemic originated in Wuhan, China, in January 2020; the virus was soon reported to be spreading all over the world. In six months', the virus infected millions of people around the world. However, few cases were reported in Malaysia back in February 2020. The virus finally spread all over Malaysia and as result the Malaysian government took the drastic measure of introducing the Movement Control Order (Lockdown), which began on 18 March 2020. Subsequently, public agencies and private companies were ordered to be closed and an emergency law was announced to the public that required everyone work or learn from home. In relation to this development, kindergarten, schools (primary and secondary), and public and private universities were also mandatorily ordered to be temporarily closed. Hence, all students from different levels of education were required to study from home using any form of online learning platform. As such, this research has been carried out to examine the effectiveness of teaching and learning during the pandemic (COVID-19) with a focus on hospitality and tourism students in Penang. Hence, three (3) variables were adopted to examine students' learning experience namely: (a) social presence, (b) cognitive presence, and (c) teaching presence. Even though the pandemic is in transition to the endemic phase, documenting students' experiences towards online teaching and learning were found to be significant for future research.

In this research, the Community of Inquiry (CoI) model was adopted to facilitate the study [21]. In this model, there are three main important antecedents, namely: (a) Social Presence, (b) Cognitive Presence, and (c) Teaching Presence. The Community of Inquiry (CoI) framework was first developed to provide a holistic understanding of the efficiency of the online conference [22]. The model was found to be suitable in assisting academics and students in participating and engaging in online learning [22]. The framework is highly focused on critical inquiry and critical thinking and can be used to examine both the student and the academician. Cooper and Scriven [23] have explained that the Community of Inquiry (CoI) framework is also used to develop academic curriculum, enhance educational experience, and optimize the availability of e-learning facilities.

Learning experience can be defined as " . . . any interaction, course, program, or other experience in which learning takes place, whether it occurs in traditional academic settings (schools, classrooms) or nontraditional settings (outside-of-school locations, outdoor environments), or whether it includes traditional educational . . . " [22]. There are several issues that arise in an online learning experience. One of these is the effectiveness of online teaching and learning. The process is highly reliant on the availability of internet connection, coverage, and access. These posed major concerns to students who are without internet access while participating in online learning [24]. The second issue was digital readiness among students. It has been found that not all students are ready to embrace technology in learning [25]. In another review of the literature, some countries were found to have a poor digitalization infrastructure and human capital in online learning [26]. From a review of the literature, it can be postulated that the Malaysian government should be ready to invest in and assimilate information technology into the education ecosystem. The issues of internet connection, infrastructure, infostructure, and university student readiness towards online learning are known to be the main issues that arise in the Malaysian higher education system. These issues are important and need to be addressed immediately in line with the United Nation Sustainable Development Goals (SDGs): 4—Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

Social presence can be defined as " . . . the ability to identify with the community, communicate purposely in a trusting environment and develop interpersonal relationships by way of projecting their individual personalities . . . " [21]. Social presence is a continuous process of connections, community building, and communication and utilization [27]. To enact social presence, educators' (academicians') teaching would have an impact on the students; their ability to control students' emotion, attract their attention, entice their interest and engage in effective two-way communication would make the learning process effective [28]. Emotional expression includes interpersonal communication, open commu-

nication, mutual communication, polite communication, and cohesion in creating a sense of belonging during teaching and learning [28]. Therefore, social presence is essential to the learning experience, as a student's attentiveness is created through effective communication. Effective communication, unique teaching pedagogy and/or andragogy, and word choices were found to create an attractive teaching and learning environment. This is important because teaching face-to-face versus online offers different dynamics, challenges, and acceptances in lecturers and students. To get students' attention during an online learning course is seen to be challenging. Therefore, one hypothesis was developed to measure the relationship between social presence and learning experience.

**H1.** *There is a positive relationship between social presence and learning experience among hospitality and tourism students in UiTM Pulau Pinang.*

As for cognitive presence, it can be defined as "... the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse in a critical community of inquiry [21]. Student satisfaction and perceived learning in higher education are examples of perceptions that have been used in most research on cognitive presence [21]. Akyol & Garrison [29] explained that to measure the outcome of learning in online learning, a variety of collaborative methods can be used. A deep understanding of online learning processes and outcomes are essential to online learning experiences that support cognitive knowledge [29]. In this study, the effectiveness of teaching and learning can be measured by using cognitive presence, as a successful knowledge transfer will only occur, when a student conforms with what is effectively delivered by the lecturer during the teaching and learning process. Therefore, to measure the relationship between cognitive presence and learning experience, a second hypothesis was developed.

**H2.** *There is a positive relationship between cognitive presence and learning experience among hospitality and tourism students in UiTM Pulau Pinang.*

Teaching presence can be defined as "... the design, facilitation and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes ... " [28]. Teachers' presence was found to be extremely important in designing, facilitating, and directing social and cognitive development and achieving meaningful learning outcomes [28]. A teacher's presence is absolutely required for 'online instructional orchestration' (Garrison et. al, 2000) [28]. Anderson et. al., [28] have further explained that teaching presence consists of the following three components: (a) instructional design and organization, (b) dialogue facilitation, and (c) direct instruction, (or a combination of these). The challenge in knowledge transfer in online learning is distinctive from conventional teaching (face-to-face). To attract students' attention and deliver a meaningful academic insight in synchronous and asynchronous environments poses a different dynamic to students. For instance, the lecturer does not know whether students are actively present in the online class as they seem to appear (stagnant picture) on the screen, but, in reality, the lecturer does not know whether they are around. This is unlike a face-to-face class where active discussion and participation can be executed at any time due to the lecturer and students being present at the same time (concurrent). Therefore, the lecturer's presence was known to have a high impact in delivering meaningful academic content to students during online learning. For that reason, the third hypothesis was developed to measure the relationship between teaching presence and learning experience.

**H3.** *There is a positive relationship between teaching presence and learning experience among hospitality and tourism students in UiTM Pulau Pinang.*

The availability of technological devices was also among the central issues. It was found that during the peak of the pandemic (lockdown), the majority of the university's students had problems participating in online learning due to the absence of devices [computer desktop or laptop] [27]. This problem was experienced by many countries

because the majority of university students in some countries were classified as poor students [24]. In addition, while many of the university's students were using basic smartphones to attend the class, the situation further worsened when there was no internet coverage. In terms of metacognition, different students have different levels of engagement (level of knowledge absorption), understanding (knowledge acceptance), and interaction (effective communication) during online learning [30]. Limited face-to-face interactions between lecturer and student, less motivation, and the burden of online learning haunt the students [31]. Notwithstanding, it can be contended that lecturers should develop their teaching methods by inventing, improving, and strengthening their knowledge on e-learning and by equipping themselves with the latest technology in teaching and learning. This is vital as the rapid development of technology and the era of digitalization in higher education continues. Hence, the respective entities (government, university, related agency) would have to consider addressing this issue.

## 2. Materials and Methods

In this study, a quantitative methodology was employed. A stratified sampling was chosen and the study sampling was exclusively controlled due to the requirement of certain respondent characteristics. The main target sample were students from the Faculty of Hotel and Tourism Management UiTM Penang Branch that had experience participating in or undergoing online learning during the Movement Control Order (lockdown) period (18 March 2020–31 December 2021). The questionnaires were distributed through several platforms, namely official email, WhatsApp, telegram, Instagram, and Facebook. A screening process was conducted to identify the valid respondents (hospitality and tourism students only). From these, a total of 360 responses were collected from 430 target samples representing an 83.71% return rate. In this sample, male (64.72%) surpassed female (35.27%) respondents. Prior to the distribution of the questionnaire, a pilot study was conducted with 30 respondents to measure the reliability and validity of the instrument. In the reliability test, the Cronbach's Alpha values for teaching presence, cognitive presence, social presence, and learning experiences were 0.835, 0.861, 0.822, and 0.887, respectively. In descriptive analysis, the demographic information, mean and standard deviation, and regression analysis were used to examine the relationship between the independent variables and dependent variables.

## 3. Results

Hotel Management, Foodservice Management, Tourism Management, Culinary Art, and Pastry and Cake Making students were chosen as a sample selection. From the study, 360 responses were successfully collected. From the total of 360 valid responses, Hotel Management students represented 24.4% (88), Foodservice Management represented 11.1% (40), Culinary Art (Diploma) represented 18.3% (66), Tourism Management represented 13.9% (50), Culinary Art management (Degree) represented 20.8% (75), and Pastry Art and Cake Baking represented 11.4% (41). From the descriptive analysis, male respondents dominated the total number of respondents. Table 1 depicts the respondents' profile.

**Table 1.** Demographic.

Demographic		Frequencies ( $n = 360$ )	Percentage (%)
<b>Gender:</b>			
-	Male	233	64.7
-	Female	127	35.3
<b>Age:</b>			
-	18–20	182	50.6
-	21–23	143	39.7
-	24–26	35	9.7
<b>Courses:</b>			
1.	Culinary Art Management (Diploma)	66	18.3
2.	Tourism management (Diploma)	50	13.9
3.	Culinary Arts Management (Degree)	75	20.8
4.	Hotel Management (Diploma/Degree)	88	24.4
5.	Food Service Management (Diploma)	40	11.1
6.	Pastry Art (Diploma)	41	11.4
<b>Programs:</b>			
	Diploma	166	46.1
	Degree	194	53.9

### 3.1. Research Sampling and Design

The target sample for this study was students in the Faculty of Hotel and Tourism Management, Universiti Teknologi MARA in Penang Branch. They were chosen as they were involved in online learning during the pandemic. The estimated population was 1985 with the sample size of  $n = 352$ . Respondents were selected by using simple random sampling. The questionnaires were distributed via WhatsApp, Facebook, telegram, and student email.

### 3.2. Research Instrumentation

The instruments used in this study were divided into five sections: Part A. Demographics; Part B. Questions pertaining to students' learning experience (8 questions); Part C. 7 questions (cognitive presence); Part D. 5 questions (social presence); and Part E. 5 questions (teaching presence). All questions were adopted from Harrell [32]. Please see the table below (Tables 2–5).

**Table 2.** Learning Experiences.

Key Code	Items
LE1	I can imagine myself working in the subject area covered by this unit.
LE2	The handouts and other materials we were given helped me to understand the unit.
LE3	The teaching encouraged me to rethink my understanding of some aspects of the subject.
LE4	I could see the relevance of most of what we were taught in this course
LE5	The teaching encouraged me to rethink my understanding of some aspects of the subject.

**Table 2.** *Cont.*

Key Code	Items
LE6	It was clear to me what was expected in the assessed work for this course
LE7	The feedback given on my work helped me to improve my ways of learning and studying.
LE8	The web pages provided by lectures helped me to understand the topics better.

**Table 3.** Cognitive Presence.

Key Code	Items
CP1	Problems posed increased my interest in course issues
CP2	Learning activities helped me construct explanations/solutions.
CP3	I felt motivated to explore content related questions.
CP4	Brainstorming and finding relevant information helped me resolve content related questions.
CP5	Online discussions were valuable in helping me appreciate different perspectives.
CP6	Combining new information helped me answer questions raised in course activities.
CP7	Reflection on course content and discussions helped me understand fundamental concepts in this class

**Table 4.** Social Presence.

Key Code	Items
SP1	Getting to know other course participants gave me a sense of belonging in the course.
SP2	Online or web-based communication is an excellent medium for social interaction.
SP3	I felt comfortable conversing through the online medium.
SP4	I felt comfortable disagreeing with other course participants while still maintaining a sense of trust
SP5	I felt that my point of view was acknowledged by other course participants.

**Table 5.** Teaching Presence.

Key Code	Items
TP1	The instructor clearly communicated important course topics.
TP2	The instructor clearly communicated important due dates/time frames for learning activities
TP3	The instructor was helpful in guiding the class towards understanding course topics in a way that helped me clarify my thinking.
TP4	The instructor helped to keep course participants engaged and participating in productive dialogue
TP5	Instructor actions reinforced the development of a sense of community among course participants.

### Reliability Test

The results from the reliability coefficients test for each component of the survey questionnaire are summarized in Table 6. In Part B, the Cronbach Alpha value for learning experiences was 0.822. The cognitive presence for section C was 0.844, the social presence for section D was 0.786, and the teaching presence for the last section was 0.820. Hence, all Cronbach's Alpha values for each variable were found to be accepted (reliable and valid).

**Table 6.** Reliability and Validity Test.

Variable	Number of Items	Cronbach Alpha
Learning Experiences	8	0.822
Cognitive Presence	7	0.844
Social Presence	5	0.786
Teaching Presence	5	0.820

### Mean and Standard Deviation

The mean and standard deviation for each element of the learning experience measure are shown in Table 7. According to the analysis, the average mean for learning experiences was 4.153, indicating the highest mean score for all variables. The average score for standard deviation was 0.644 (above average). This indicates that the majority of respondents believe that learning experiences are a critical element in teaching and learning.

**Table 7.** Mean and Standard Deviation of Learning Experiences.

Items	Means	Standard Deviation
1. I can imagine myself working in the subject area covered by this unit.	4.211	0.6332
2. The handouts and other materials we were given helped me to understand the unit.	4.097	0.6236
3. The teaching encouraged me to rethink my understanding of some aspects of the subject.	4.075	0.6570
4. I could see the relevance of most of what we were taught in this course	4.175	0.6799
5. The teaching encouraged me to rethink my understanding of some aspects of the subject.	4.142	0.6587
6. It was clear to me what was expected in the assessed work for this course	4.197	0.6399
7. The feedback given on my work helped me to improve my ways of learning and studying.	4.111	0.6145
8. The web pages provided by lectures helped me to understand the topics better.	4.217	0.6530

$n = 360$ : Average Mean: 4.153 = Average Standard Deviation: 0.6449.

The mean and standard deviation for each item on the cognitive presence measure are depicted in Table 8. According to the analysis, the average mean for cognitive presence was 4.185, indicating that the mean score is high. The average score for standard deviation was 0.6188 (above average). This implies that the majority of respondents believe cognitive presence is also critical in teaching and learning during online classes.

**Table 8.** Mean and Standard Deviation of Cognitive Presence.

Items	Means	Standard Deviation
1. Problems posed increased my interest in course issues	4.092	0.671
2. Learning activities helped me construct explanations/solutions.	4.208	0.618
3. I felt motivated to explore content related questions.	4.153	0.589
4. Brainstorming and finding relevant information helped me resolve content related questions.	4.217	0.635
5. Online discussions were valuable in helping me appreciate different perspectives.	4.211	.0.619
6. Combining new information helped me answer questions raised in course activities.	4.242	0.606
7. Reflection on course content and discussions helped me understand fundamental concepts in this class	4.169	0.589

$n = 360$ : Average Mean: 4.185 = Average Standard Deviation: 0.6188.

The mean and standard difference of items stated in the social presence measure are illustrated in Table 9. On the basis of data analysis, the average social presence of respondents was 4.228, showing a high average score. The average score for standard deviation was 0.6081. This means that most respondents agree that social presence is also a significant antecedent in teaching and learning during online class sessions.

**Table 9.** Mean and Standard Deviation of Social Presence.

Items	Means	Standard Deviation
1. Getting to know other course participants gave me a sense of belonging in the course.	4.225	0.5895
2. Online or web-based communication is an excellent medium for social interaction.	4.267	0.6027
3. I felt comfortable conversing through the online medium.	4.203	0.5834
4. I felt comfortable disagreeing with other course participants while still maintaining a sense of trust	4.222	0.6382
5. I felt that my point of view was acknowledged by other course participants.	4.225	0.6082

$n = 360$ : Average Mean: 4.2284/Average Standard Deviation: 0.6081.

From the data analysis, Table 10 indicates that the average mean for teaching presence is 4.258. The average score for standard deviation was 0.58616. Although the score for standard deviation was slightly low compared to the two independent variables, it can still be accepted. This shows that most respondents agree on the importance of teaching presence on individuals' behavior in online learning during the pandemic.

**Table 10.** Mean and Standard Deviation of Social Presence.

Items	Means	Standard Deviation
1. The instructor clearly communicated important course topics.	4.197	0.6041
2. The instructor clearly communicated important due dates/time frames for learning activities	4.325	0.5900
3. The instructor was helpful in guiding the class towards understanding course topics in a way that helped me clarify my thinking.	4.236	0.5993
4. The instructor helped to keep course participants engaged and participating in productive dialogue	4.278	0.5641
5. Instructor actions reinforced the development of a sense of community among course participants.	4.253	0.5733

$n = 360$ : Average Mean: 4.258/Average Standard Deviation: 0.58616.

### Hypothesis Testing

The value of the correlation coefficient analysis was to measure the strength of each variable in the study. Pearson correlation analysis was employed to analyze the correlation between variables. Correlation had the zone of tolerance in which correlation 0 indicated that the variables were totally unrelated. A correlation value of 1.0 showed a positive (+) correlation and a value of  $-1.0$  explained that there was no relationship between variables.

#### (a) (Social Presence—Learning Experience (SP-SL) (Table 11))

**Table 11.** Social Presence—Learning Experience (SP-SL).

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-Order	Partial	Part	Tolerance	VIF
(Constant)	1.085	0.145		7.506	0.000	0.801	1.370					
1 Social Presence	0.726	0.034	0.748	21.336	0.000	0.659	0.792	0.748	0.748	0.748	1.000	1.000

Dependent Variable: Learning Experiences.

The objective of the first hypothesis was to examine the relationship between social presence and learning experience. Based on the analysis, the regression value was ( $r = 0.748$ ). The value shows that there is a positive (+) and strong relationship between social presence and learning experience. while for the value of sig-r, the value showed a significant relationship between social presence and learning experience, which was at the level of 0.005 (sig = 0.000).

**(b) Cognitive Presence and Learning Experience (CP-LE) (Table 12)**

**Table 12.** Cognitive Presence and Learning Experience (CP-LE).

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-Order	Partial	Part	Tolerance	VIF
Constant	0.827	0.123		6.729	0.000	0.585	1.069					
1 Cognitive Presence	0.795	0.029	0.821	27.204	0.000	0.737	0.852	0.821	0.821	0.821	1.000	1.000

Dependent Variable: Learning Experiences.

The next hypothesis measured the relationships between cognitive presence and learning experience. Based on the analysis, the correlation value between cognitive presence and learning experience showed a high correlation ( $r = 0.821$ ). Despite problems occurring in online learning, the students were keen to absorb as much knowledge as possible during the online classes.

**(c) Teaching Presence and Learning Experience (TP-LE) (Table 13)**

**Table 13.** Teaching Presence and Learning Experience (TP-LE).

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-Order	Partial	Part	Tolerance	VIF
Constant	1.124	0.147		7.658	0.000	0.835	1.412					
1 Teaching Presence	0.712	0.034	0.739	20.762	0.000	0.644	0.779	0.739	0.739	0.739	1.000	1.000

Dependent Variable: Learning Experiences.

The third hypothesis examined the lecturer’s presence in relation to the students during the online learning experience. From the analysis, it was found that the regression results showed a significant correlation between teaching presence and learning experience ( $r = 0.739$ ). Therefore, it can be reiterated that the lecturer’s participation in an online class is significant and has an impact on students’ learning experience.

**Summary of the Coefficient**

The cognitive presence value was 0.521, the social presence value was 0.161, and the teaching presence value was 0.194, as per Table 14, the standardized coefficient B. The constant value of this model was 0.468. The social presence had the highest standardized coefficient value at 0.51, according to the findings of this study. During the COVID-19 pandemic, the most significant influences on the efficacy of teaching and learning was social presence.

**Table 14.** Summary of the Coefficient.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	0.468	0.126		3.719	0.000	0.221	0.716
1 COGNITIVEPRESENCE	0.521	0.048	0.538	10.936	0.000	0.427	0.615
SOCIAL_PRESENCE	0.161	0.051	0.166	3.174	0.002	0.061	0.261
TEACHING_PRESENCE	0.194	0.047	0.201	4.083	0.000	0.100	0.287

Dependent Variable: LEARNING EXPERIENCES.

## Regression Test

### (a) Cognitive Presence

The F-value and P-value based on Table 15 were used to predict and determine if the regression model of this study was in line with the data in accordance with the F-value regression of 740.042, while that of 0.000 in terms of  $p$ -value. The regression model was well adapted to the data, because the  $p$ -value was below  $\alpha = 0.05$ .

**Table 15.** ANOVA Table for Cognitive Presence.

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	44.869	1	44.869	740.042	0.000 <sup>b</sup>
	Residual	21.706	358	0.061		
	Total	66.575	359			

Dependent Variable: Learning Experiences; <sup>b</sup> Predictors: (Constant), Cognitive Presence.

### (b) Social Presence

The F-value and  $p$ -value based on Table 16 were used to predict and determine if the regression model of this study was in line with the data in accordance with the F-value regression of 455.227, while that of 0.000 in terms of  $p$ -value. The regression model was well adapted to the data, because the  $p$ -value was below  $\alpha = 0.05$ .

**Table 16.** ANOVA Table for Social Presence.

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	37.267	1	37.267	455.227	0.000 <sup>b</sup>
	Residual	29.308	358	0.082		
	Total	66.575	359			

Dependent Variable: Learning Experiences; <sup>b</sup> Predictors: (Constant), Social Presence.

### (c) Teaching Presence

The F-value and  $p$ -value based on Table 17 were used to predict and determine if the regression model of this study was in line with the data in accordance with the F-value regression of 431.071, while that of 0.000 in terms of  $p$ -value. The regression model was well adapted to the data, because the  $p$ -value was below  $\alpha = 0.05$ .

**Table 17.** ANOVA Table for Teaching Presence.

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	36.370	1	36.370	431.071	0.000 <sup>b</sup>
	Residual	30.205	358	0.084		
	Total	66.575	359			

Dependent Variable: Learning Experiences; <sup>b</sup> Predictors: (Constant), Teaching Presence.

## Summary of ANOVA

The F-value and  $p$ -value based on Table 18 were used to predict and determine if the regression model of this study was in line with the data in accordance with the F-value regression of 297.111, while that of 0.000 in terms of  $p$ -value. The regression model was well adapted to the data, because the  $p$ -value was below  $\alpha = 0.05$ .

**Table 18.** Summary of ANOVA.

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47.574	3	15.858	297.111	0.000 <sup>b</sup>
	Residual	19.001	356	0.053		
	Total	66.575	359			

Dependent Variable: Learning Experiences; <sup>b</sup> Predictors: (Constant), Teaching Presence, Cognitive Presence, Social Presence.

### Model Summary

Based on the Table, the  $r$  is equal to 0.845, the  $p$  is equal to 0.000, and the square R value has a 0.715 value (Table 19). This indicates that the variables are closely related to learning experiences, cognitive presence, social presence, and teaching presence. This means that the variables have a significant relationship.

**Table 19.** Model Summary.

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.845 <sup>a</sup>	0.715	0.712	0.23103

<sup>a</sup> Predictors: (Constant), TEACHING\_PRESENCE, COGNITIVE\_PRESENCE, SOCIAL\_PRESENCE; <sup>b</sup> Dependent Variable: LEARNING\_EXPERIENCES.

### Summary of Finding (Table 20)

**Table 20.** Summary of Hypothesis Testing.

Research Hypothesis	Result
H1: There is a positive relationship between social presence and learning experience among hospitality and tourism students in UiTM Pulau Pinang	Supported
H2: There is a positive relationship between cognitive presence and learning experience among hospitality and tourism students in UiTM Pulau Pinang	Supported
H3: There is a positive relationship between teaching presence and learning experience among hospitality and tourism students in UiTM Pulau Pinang	Supported

### Overall Synthesis

This study is significant to the world of academia and valuable to policymakers in Malaysia. It is especially useful to people with power (the Malaysian Government). The study has the capacity to improve knowledge about student behavior around and acceptance of online learning in higher learning institutions. From the results, it was found that cognitive presence influenced learning experience (beta 0,726); this is in line with the results obtained by Yates et al., [31]. As for social presence towards learning experience, the beta value scored 0.795, which is consistent with the results in studies by Aldama [10] and Ating [30] that reveal that student satisfaction is crucial in university survivability. Finally, the active involvement of lecturers and lively class interactions (0.712) between lecturers and students during online learning was found to be important. This is consistent with the findings of Smith's [23] and Hodges, Moore, Locke, Trust and Bond [33] study, which concurs that teaching presence is important in knowledge transfer. The regression analysis shows that the score between variables ( $R = 0.845a$ ) is in line with the findings

of Hofer, Nistor & Scheibenzuber [12], reiterating that the challenge in online learning is influenced by many factors. To sum up, those three variables were found to influence the effectiveness of teaching and learning among Universiti Teknologi MARA Penang Branch Campus students. Nonetheless, from the university management point of view, this study has the capacity not only to identify students' issues during online learning, but also to improve online learning.

#### 4. Limitations of Study and Recommendation

This study poses some limitations. First of all, the sample size was not diverse, therefore, it is proposed that future researchers could expand the sample to a bigger audience that includes other fields of study and discipline. This study only focused on Faculty of Hotel and Tourism Management students, Universiti Teknologi MARA Penang Branch, which does not represent the entire student population in Malaysia's public and private University. It can also be suggested that, in the near future, the research should include students from other public and private universities in Malaysia. The larger the sample size, the better the results gathered; these findings can then be generalized and used as a reference. Finally, this study only focuses on three factors that impact the effectiveness of online teaching and learning. Future research may consider adopting other variables to improve the findings of this study.

#### 5. Conclusions

In conclusion, based on the results, a large number of students who experienced online learning during the COVID-19 pandemic agreed that social presence, cognitive presence, and teaching presence played a significant role in impacting their online learning experience. It can be generally reiterated that the COVID-19 pandemic was known to impact various industry and business sectors and without exception the education industry. Finally, various entities should consider embracing the new norms in education sectors (digitalization) as this will be the new normal to academicians, students, policymakers, lawmakers, and practitioners in the future.

**Author Contributions:** Formal analysis, H.F.A. and A.A.; Investigation, N.M.S.; Data curation, T.S.T.H.; Writing—review & editing, J.L. All authors have read and agreed to the published version of the manuscript.

**Funding:** This research received no external funding.

**Institutional Review Board Statement:** Not applicable.

**Informed Consent Statement:** Not applicable.

**Data Availability Statement:** Not applicable.

**Conflicts of Interest:** The authors declare no conflict of interest.

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