COVID-19 Pandemic: Langkawi Vocational College Student Challenge in Using Google Classroom for Teaching and Learning (T&L)

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ABSTRACT

The implementation of government-issued social awareness during the COVID-19 pandemic has affected the teaching and learning (T&L) activities. This study aims to identify the challenges that students face in using Google Classroom as a T&L method during the COVID-19 pandemic. A total of 39 Culinary Arts Diploma students at Langkawi Vocational College, Kedah who took the subjects of DHA1234 - Basic Food and Cookery, DHA 3051 - Final Year Project 1 and DHA 1123 - Introduction to Hospitality Industry participated in the study. The questionnaire used was adapted from the previous study and had received expert's confirmation before being used in the study. The results of the study were analyzed using descriptive statistics involving average use, standard deviation, percentage, frequency, and score. Inferencial statistics involved pearson correlation tests. The study showed that the mean level of challenge faced by students in using Google Classroom is 3.46. Meanwhile, the pearson correlation test found that the significant value was .000. Therefore, there was a relationship between motivational and internet networks aspects. Therefore, the hypothesis (H0) stated in the hypothesis section was rejected.

Key words: e-learning, Teaching and Learning, google classroom

1. INTRODUCTION

The COVID-19 pandemic is no longer something new to talk about. This crisis not only affects Malaysia, but the whole world [1]. Health professionals from around the world are yet to find a cure for this pandemic and confirm that there is no certainty when the crisis will end. The COVID-19 disrupts various sectors of the country including the economic sector [2]. The quick action of the Malaysian government to declare the Movement Control Order (MCO) starting March 18, 2020 is a very effective effort to curb the spread of the epidemic [3]. The government's swift efforts are to be praised in dealing with the outbreak. Based on the COVID-19 pandemic outbreaks statistics, it could be said that the MCO has been able to control the outbreak.

Among other sectors that has been paralyzed is the education sector. The world of education is no exception to this crisis [4]. The COVID-19 pandemic has led to a worldwide education system where almost all schools, universities and colleges are closed [5]. Children are not allowed to go to schools and educational institutions to ensure that their lives and families are not endangered. The global crisis caused by the outbreak of the COVID-19 did not only cause conventional T&L to be delayed, but also made teacher assignments more challenging when they needed to adapt to the new norms that required the T&L process to be implemented online.

In the new millennium that prioritizes lifelong learning skills, there is no choice but to leverage online education technologies and applications [6] state that information at the fingertips needs to be utilized fully to ensure that although they are unable to attend school to seek knowledge, the knowledge must be conveyed to them via various mediums or platforms. [7] stated that ideally, virtual learning should be pursued using a variety of approaches, be it synchronous learning or asynchronous learning. Learning tools used can be customized to suit the learning needs. There are various mediums to be used including Microsoft Teams, Facebook Live, Google Classroom, Webex, Zoom and other chat applications like Whatsapp and Telegram [8]. Thus, the objectives and hypotheses of this study are as follow:

I. Identify the challenges of using google classroom in Langkawi Vocational College students' learning in terms of internet connection, ICT knowledge, ease of use, family and motivation.

II. Identify the relationship between the challenges of internet networks and the motivation for using google classroom in Langkawi Vocational College student learning.

Ho: There is no significant relationship between internet network and Vocational College student motivation in using google classroom.

Ha: There is a significant relationship between internet network and Vocational College student motivation in using google classroom.

2. LITERATURE REVIEW

2.1 COVID-19 Pandemic

The novel Coronavirus, designated as 2019-nCoV or COVID-19, was first identified in Wuhan, China, at the end of 2019 [9]. According to the World Health Organization (WHO), Coronavirus forms a large family of viruses that can infect birds, mammals and even humans. Coronavirus belongs to the small family Coronavirinae within the family Coronaviridae [10]. According to [11], there are many different types of human coronaviruses in terms of how severe the disease becomes and how far they can spread. Doctors currently recognize seven types of coronavirus that can infect humans [12]. According to [12] the virus has also been attributed to several outbreaks worldwide, including the severe acute respiratory syndrome (SARS) outbreak in 2002-2003 and the Middle East respiratory syndrome (MERS) epidemic in South Korea in the year of 2015.

As of January 24, 2020, at least 830 cases have been diagnosed in nine countries, namely, China, Thailand, Japan, South Korea, Singapore, Vietnam, Taiwan, Nepal and the United States, with the first 26 deaths occurring, especially in patients with serious illness [10]. Although many details about the origin of the virus have its roots and its ability to spread among humans, it remains unclear and the number of cases is increasing day by day [13]. Given the outbreak of severe acute respiratory syndrome (SARS-CoV) in 2002 and the Middle East respiratory syndrome (MERS-CoV) in 2012, 2019-nCoV is the third coronavirus to appear in the human population in the last two decades [14].

More than 74,000 people are infected with the virus in China [15]. Health authorities have identified many individuals with COVID-19 worldwide, including in the United States. As of January 31, 2020, the virus continues to spread from one individual to another in the United States [16]. WHO has declared a public health emergency related to COVID-19 [17]. WHO has advised that it is likely that the spread will continue to spread to more individuals. COVID-19 has begun to cause disruptions in at least 25 other countries [15]. The first person infected with COVID-19 has links to the animal and seafood markets [10]. This fact shows that animals initially transmitted the virus to humans. However, the other individuals diagnosed with COVID-19 have no relationship or exposure to the market [18]. Therefore, this proves that humans can transmit the virus to each other.

2.2 E-Learning

Online learning (e-learning) is a form of T&L delivered through the use of digital technology. The T&L materials presented using this medium have visual, word, animation, video or audio visuals. In addition, it also provides facilities such as classroom learning and assisted by educators in specific fields online [19].

This online learning skill is one of the key skills in the 21st Century Skills that every person needs to master in order to succeed in this challenging age. These skills require someone who is able to determine what to learn, find information or materials to learn, have self-directed and self-directed learning skills, be motivated, and be able to reflect on their learning through self-assessment or other means. Through online learning, teachers and students are able to practice continuous T&L while also being able to convey knowledge more effectively [20].

According to [21], the four main factors affecting online learning are content, communication, testing, and also the convenience of uploading or downloading related learning materials. The contents of the learning content include aspects of the usage guide, notes or learning modules, media elements used, learning info links, content links, and even interactive resources. In terms of communication, the related elements are announcements, chat sites, discussion sites, and even mails while the tests include assignments, quizzes, grades, reinforcement training, past questions, journals related to learning topics, and research questions.

In addition, the convenience of submitting assignments online through the turn in method makes it easy for teachers as well as students because the crediting and marking of assignments can be done anywhere without the need for paper and pen [22]. In contrast to [23], e-learning and distance learning involve learning based on web usage. In addition, the determination of subjects, learning topics and learning objectives depend on self-directed, directed or teacher-based learning.

2.3 Google Classroom In Education And Learning

Google classroom has officially become a learning platform in place of Frog VLE. Common sense google classroom is a user-friendly and lightweight Google educational application. In addition to being free, there are many benefits in using google classroom in creating a learning environment in line with 21st century learning [24]. According to Dr. Wagheeh Shukry Hasan, Chief Assistant Director of the Learning Platform Sector, Educational Resources Division at Ministry of Education, google classroom was chosen because it complies with International Society for Technology in Education (ISTE) international standards and is easy to use because it is user friendly.

[25] emphasize that T&L activities should be constantly updated and improved as the techniques evolve. He suggested that teachers equip themselves with learning and mastering contemporary teaching techniques that are more relevant to media and technology use. This approach is supported by [26] who stated that the use of technology in T&L process can

broaden the scope of teaching, increase the quality of teaching and reduce costs and provide opportunities for students to master their learning and encourage interaction and feedback from students.

According to [27], google classroom is accessible through web browsers as well as smart applications on Chrome OS, iOS and Android. Offers on all of these major platforms make it easy to access and enable anyone to use them. [28] state that google classroom is an online liaison platform that enables teachers to post announcements, share learning materials, assign assignments and evaluate student assignments. In order to become proficient in Google Classroom, educators also need to master other applications in their ecosystem [29]. These include the use of Google Drive, cloud storage and other cloud productivity applications such as Google Forms, Google Docs, Google Sheets, Google Slides, Google Calendar, Google Jamboard, Google Sites, and more. Interestingly, most of these applications can be used offline using applications on Android, iOS and Chrome OS.

3. RESEARCH METHODOLOGY

This research involves a quantitative study. Data were collected using modified questionnaire based on previous studies. The modified questionnaire was subsequently checked by the expert before being used in the study. The population of this study involved 39 students of Diploma in Culinary Arts at Langkawi Vocational College, Kedah who took the subjects of DHA1234 - Basic Food and Cookery, DHA 3051 - Final Year Project 1 and DHA 1123 - Introduction to Hospitality Industry. The sample consisted of 12 Year 1 students, 9 Year 2 students and 18 Year 3 students. A total of 10 Year 3 students were selected as respondents in the pilot study. Cronbach's alpha test was performed and the mean value was .617. This value is in good category. According to [30], alpha values above .60 were frequently used in studies. The questionnaire comprised five (5) sections as shown in Table 1. The questionnaire used a five-level likert scale which were strongly disagree, disagree, uncertain, agree and strongly agree.

Table 1: Questionnaire Instrument

Section	Aspects	Number of Question
A	Respondent's Information	4
B	Internet Network	5
C	ICT Knowledge	5
D	Easy To Use Response	5
E	Motivation	5

The analysis used in this study involved descriptive and inference analysis. Descriptive analysis was intended to describe something. It usually involves the mean, sum and so on. While inferencial analysis investigated if there was a

relationship between the variables studied. In this study, one study question used descriptive analysis. Inferencial analysis was performed to answer the second research question. The implementation of Google Classroom was carried out during the COVID-19 outbreak of MCO. Lecturers were tasked with using Google Classroom as a medium to replace the online T&L process so that students can continue learning without face to face interaction in the classroom. Figure 1 below shows the implementation of Google Classroom m-learning for Langkawi Vocational College Diploma in Culinary Arts students.
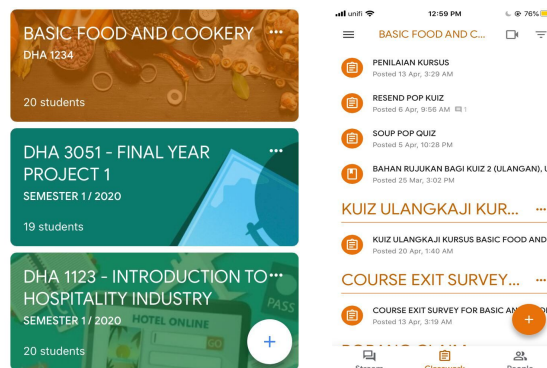
Figure 1: Google Classroom implementation

4. ANALYSIS AND DISCUSSION OF STUDY

The study involved 39 students of Diploma in Culinary Arts at the Langkawi Vocational College, Kedah who took the subjects DHA1234 - Basic Food and Cookery, DHA 3051 - Final Year Project 1 and DHA 1123 - Introduction to Hospitality Industry. The interpretation of mean scores for this study was based on [31] as described in Table 2.

Table 2: Interpretation of Mean Scores

	Level	Mean
1	Very low	1.00 – 1.80
2	Low	1.81 – 2.60
3	Moderate	2.61 – 3.40
4	High	3.41 – 4.20
5	Very high	4.21 – 5.00

4.1 Respondents' Demographic Distribution

Table 3 shows the distribution of students by gender. A total of 18 male students (46.15%) and 21 female students (53.85%) were involved in this study. The respondents in this study were purposefully sampled. Therefore, the percentage of gender was not the same as the research questions distributed based on the class of students.

Table 3: Frequency and percentage of respondents by gender

Gender	Frequency	Percent (%)
Male	18	46.15
Female	21	53.85
Total	39	100

The analysis of the study showed that the respondents were of various ethnicities. The majority of respondents who answered the questionnaire were the Malays of 37 students (94.87%) and 2 (5.13%) Chinese students. No Indians and other ethnic groups were involved. Table 4 shows the frequency and percentage of respondents by race.

Table 4: Frequency and percentage of respondents by race

Race	Frequency	Percent (%)
Malay	37	94.87
Chinese	2	5.13
Total	39	100

Subsequently, Table 5 shows the frequency and percentage of respondents by year of study. The majority of respondents who answered the questionnaire were year 4 involving 18 students (46.15%), followed by year 1 involving 12 students (30.77) and last year 3 involving 9 students (23.08%).

Table 5: Frequency and percentage of respondents by year of study

Year Of Study	Frequency	Percent (%)
1 year	12	30.77
3 year	9	23.08
4 year	18	46.15
Total	39	100

The data analysis for the frequency of Google Classroom usage during the week shows that the majority of students used it 1-5 times a week with 24 students (61.5%) followed by 6-10 times with 11 students (28.3%) and 11-20 times with 4 with students (10.3%). Table 6 shows the frequency and percentage of respondents by race.

Table 6: Frequency and percentage of respondents by frequency of use of Google Classroom during the week

how often you use Google Classroom during the week	Frequency	Percent (%)
1 – 5 times	24	61.54
6 – 10 times	11	28.21
11 – 20 times	4	10.26
Total	39	100

4.2 Challenges of using Google Classroom for Internet Network aspect

In this section the researcher discusses the challenges students face on the internet to use google classroom in learning. Based on the analysis, the highest meanings found in internet network aspects is 3.82 in item A1 "I find it difficult to find internet facilities at home". Therefore, [32] suggest that stakeholders play a role in ensuring that Internet facilities and facilities are available for student engagement with e-learning. Meanwhile, the lowest mean in item A3 of "My home network can't support access to information in Google Classroom" has a mean value of 3.54. This is very important and needs to be emphasized because online learning is a teaching and learning process that uses electronic networks (LAN, WAN or Internet) to convey content, information and to interact with it. Internet, intranets, satellites, audio-video tapes, interactive tv fan CD-rom are some of the electronic media used to practice e-Learning [33]. However, overall this aspect has a high mean value of 3.65. Where it can be concluded that students at Malaysian HEIs are aware of the importance of e-learning and this statement is supported by [34]. Table 7 shows the analysis results obtained for internet network aspects.

Table 7: Challenges of using Google Classroom for Internet Network aspect

No	Item	Mean	Standard deviation	Interpretation
A1	I find it hard to find internet access at home.	3.82	1.34	High
A2	I can't afford to subscribe to the internet	3.56	1.31	High
A3	My home network does not support access to information in Google Classroom.	3.54	1.43	High
A4	The internet access area at my house is in poor condition.	3.69	1.36	High
A5	Upload / download a learning material in my home area is in poor condition.	3.62	1.33	High
Overall Score		**3.65**	**1.24**	High

4.3 Challenges of using Google Classroom for ICT Knowledge aspect

Based on Table 8, the discussion regarding students' ICT knowledge in conducting learning using google classroom.

The results of the analysis showed that the highest mean value in item B4 was "I rarely use Google Classroom (less than 5 times a week)" of 3.64. This may be because educators or lecturers were less likely to implement the online T&L and still use conventional approaches. [35], in their study raised the question that the use of mobile technology among students in Higher Education Institutions (HEIs) is influenced by two sets of opposing traits, namely Y-generation characteristics and the inherited cultural values. For example, as Y generation, they wanted something fast and were open-minded, but they also highlighted the inherited cultural trait of being too dependent on teachers, responding only when asked by teachers and communicating in a group setting. In addition, the lowest mean value was in item B3 "I feel less confident when using Google Classroom" which was 2.85. Before using google classroom, educators or lecturers should first provide students with instruction and start with easy-to-use lessons for students to use. This was also supported by [36] who stated that Academic Staff were encouraged to play the role of guiding students in mastering technology to develop appropriate teaching pedagogy. Overall, the mean for ICT knowledge aspect was at a moderate level of 3.24. Therefore, the results show that respondents have skills in using ICT. They do not face obstacles caused by knowledge constraints using ICT.

Table 8: Challenges of using Google Classroom for ICT Knowledge aspect

No.	Item	Mean	Standard deviation	Interpretation
B1	I have no skills in using Google Classroom.	3.13	1.40	Moderate
B2	I always face obstacles when using Google Classroom because of my knowledge limitations.	3.15	1.35	Moderate
B3	I feel less confident when using Google Classroom.	2.85	1.35	Moderate
B4	I rarely use Google Classroom (less than 5 times a week)	3.64	1.14	High
B5	I'm not ready to face the challenges of using Google Classroom.	3.44	1.07	High
Overall Score		**3.24**	**1.02**	**Moderate**

4.3 Challenges of using Google Classroom for Easy to Use Response aspect

The results from Table 9 show the highest mean value of 3.77 in item C5 "I have difficulty using Google Classroom when it comes to group work". Meanwhile, the lowest mean value was 3.10 on item C4 "I find it very difficult to submit assignments". Although e-learning offered many advantages, it did not always help and meet the overall learning needs. This statement was also supported by [37]. Therefore, educators or lecturers should identify other alternatives for group work or the weaknesses found in the implementation of google classroom. Overall, the mean value was high with a value of 3.47.

Table 9: Challenges of using Google Classroom for Easy to Use Response aspect

No	Item	Mean	Standard deviation	Interpretation
C1	I'm having trouble using Google Classroom due to internet restrictions.	3.67	1.34	High
C2	I find the Google Classroom system quite difficult to use.	3.15	1.25	Moderate
C3	I find using Google Classroom a bit difficult for me to ask a teacher for a topic I don't understand.	3.64	0.99	High
C4	I find it very difficult to submit assignments.	3.10	1.23	Moderate
C5	I have trouble using Google Classroom when it comes to group work	3.77	1.13	High
Overall score		**3.47**	**0.91**	**High**

4.4 Challenges of using Google Classroom for Motivation aspect

Table 10 shows the analysis results for the motivation aspect, from which the high mean value was 3.64, in item E3 "I cannot focus when I am at home by following Google Classroom". Furthermore, the low mean value was 3.31 in item E4 "I am not confident about participating in Google Classroom". In the learning process, a positive environment also played an important role in raising the students' learning. In addition, educators need to be sensitive and guiding when using google classroom as uncontrolled interactive sessions can affect students' emotions and academic performance [38]. Therefore, the overall mean value of 3.48 was found to be high. [39] stated that motivation was important in encouraging students to use e-learning. The use of Motivated-Oriented Design is to give students autonomy and control in e-learning.

Table 10: Challenges of using Google Classroom for Motivation aspect

No	Item	Mean	Standard deviation	Interpretation
E1	I find learning through Google Classroom very challenging.	3.54	1.19	High
E2	I have no passion for Google Classroom.	3.38	1.35	High
E3	I can't focus when I'm at home by following Google Classroom.	3.64	1.18	High
E4	I don't have the confidence to go to Google Classroom.	3.31	1.32	Moderate
E5	I need someone to guide me through Google Classroom.	3.54	1.23	High
	Overall score	**3.48**	**1.01**	**High**

4. 5 Overview of The Challenges in Using Google Classroom

This section will discuss the challenges of using the google classroom which include internet network construction, ICT knowledge, ease of use, and student motivation. The main purpose of this study was to determine whether the level of challenge faced by students was at a high, medium or low level. The mean of all four constructs were summed and subtracted to obtain the overall mean value representing the

level of challenge in using google classroom. Based on Table 11, the overall mean value obtained was 3.46 which was high. However, in order to implement online learning, there were several factors that educators or lecturers need to keep in mind, that the content of the software or web site that met the syllabus was important to ensure its appropriateness as a teaching tool. This statement was also supported by [40] who argued that the content of online lessons that met the syllabus was important. In addition, [41] stated that the level of student acceptance also varied by people and caused the weak students to be left behind if they did not understand clearly and did not accept the input, they had been given ".

Table 11: Overview of the Google Classroom Challenge Level Construction (n = 39)

Aspect	Mean
Internet network	3.65
ICT knowledge	3.24
Easy to Use Response	3.47
Motivation	3.48
overall	**3.46**

4.6 Challenges of Relationships Between Internet Networks and Motivation in Using Google Classroom

Based on Table 12, the study found that the mean value obtained was .000 which was lower than 0.05. Therefore, there was a relationship between internet networks and motivational. Therefore, the hypothesis (H0) stated in the hypothesis section was rejected. However, the level of correlation between motivational internet networks was modest because the R value was .556. In addition, the relationship between these two constructs can be summarized as the lower the internet network level was the higher the motivation level became because the R value was positive. There were several factors that had to be taken into account in the implementation of online learning, namely student-lecturers, administrators and administrators, student-to-system interactions, and the time allotted for each interaction [42]. The cultural aspects surrounding students' thinking also need to be addressed so that they are more open and positive and constructive in the google classroom [43].

Table 12: Challenges of Relationships between Internet Networks and Motivation in using Google Classroom

Variable	Internet Network		Motivation	
	R	Sig.	R	Sig.
Internet Network	1	-	.556	.000
Motivation	.556	.000	1	-

5. CONCLUSION

In conclusion, according to the results of the study discussed, the researchers found that the overall challenges faced by students in online learning were high. Therefore, the findings of this study need to be considered before the educators or lecturers conduct online learning. It is very important for all students to continue the learning that the lecturers are conducting without having any drop out. In addition, the researchers feel that the management of the Vocational College needs to enhance the existing infrastructure of the hostel and college which will increase the likelihood of effective use of e-learning among the students. The researchers also hope that the findings of this study can serve as a guide or benefit to the relevant parties.

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