Effects of Social Media Features on Music Teaching and Learning During the COVID-19 Movement Control Order (MCO)

Jinky Jane C Simeon, University Malaysia Sabah, Malaysia
Resot Iggau, University Malaysia Sabah, Malaysia

The European Conference on Arts, Design & Education 2022
Official Conference Proceedings

Abstract
The COVID-19 pandemic has caused many education organisations to make full use of various online communication platform technologies to continue teaching. This study aims at gaining a deeper understanding of the usefulness of an e-learning platform for teaching and learning activities. It focuses on the trends of social media usage as well as a student's attitude towards knowledge sharing. A survey research was conducted to examine undergraduate music students on their music instruments learning during the lockdown period. The study's sample consisted of 70 music undergraduates of Universiti Malaysia Sabah (UMS). Data were collected via online questionnaires using Google Forms. The music instruments teaching and learning activities during the lockdown were analysed via statistical analysis. Based on the analysis, the majority of undergraduates gained less knowledge from online learning. Besides, this study found that their experience accompanied them as part of their studies. Network connectivity, especially in the rural areas was a major issue for their online learning. In conclusion, online teaching has both strengths and weaknesses.

Keywords: Online Music Teaching, Musical Instruments, Social Media Usage, E-Learning, Music Instruments Learning

Introduction

Malaysia announced the first COVID-19 case on 25 January 2020, whereby an infected Chinese national travelled to Malaysia from Singapore (Profdten & Ahmad, 2021). On 15 March 2020, Malaysia reported the highest number of coronavirus cases in Southeast Asia. As a result, on 18 March 2020 Malaysia implemented the movement control order (MCO) or lockdown (Department of Statistic Malaysia, 2020). Moreover, on 4 May 2020 MCO was replaced by the conditional movement control order (CMCO) and thereafter, on 10 June 2020 CMCO was replaced by the recovery movement control order (RMCO). Therefore, the global COVID-19 pandemic has forced closure of the country's economic, education and social systems.

During such situations, social media are important for communicating and sharing information amongst the community. Based on a study by Amir (2020), the use of social media or online platforms remained the norm for Malaysians until the end of MCO. This led to teaching and learning methods shifting towards the online platform (Biwer et al., 2021; Henriksen et al., 2020; Xhelili et al., 2021; Rucsanda et al., 2021). In terms of music education, Groulx and Hernly (2010) stated that online music education is served as an additional teaching tool. It was neither exclusive nor inferior, or superior to traditional coursework. In an online teaching, teachers are encouraged to use and explore the effectiveness of technology resources.

One related issue at the universities was that the music education teachers have no experience in distance teaching. According to the recent research findings, the subject matters that were appropriate to this system would be theoretical and group (music theory, composition, music history, anthropology, teacher's education, aesthetics, semantics, etc.) (MacLeod, 2013; Albert, 2014; Schmidt-Jones, 2017).

Theory based studies are easier to transmit and present in online settings (Biasutti, 2017). It is difficult for practical lessons, such as music performance or instrumental studies. In this context, a teacher cannot correct the student's posture or finger position physically and techniques of playing via online teaching. However, a music teacher can demonstrate sound, rhythm pattern, dynamics, phrasing as well as explain the characteristic of the music (Rucsanda et al., 2021).

Based on these backgrounds, the objectives of this study are: i) to evaluate the level of online learning readiness for music major study courses through the aspects of self-efficacy, subjective norms, experiences, perceived ease of use, perceived usefulness and behavioural intention; ii) to identify the main problems frequently faced by undergraduate music students during the implementation of online learning for major study courses; and iii) to identify the challenges and values faced by undergraduate music students in continuing the use of online learning methods for major study courses in the future.

Methodology

This survey was conducted in five months or one semester from March to July 2021 at the Academy of Arts and Creative Technology (ASTiF), Universiti Malaysia Sabah (UMS) during the MCO. Online survey method was used to obtain the data from respondents using Google Forms. This study used a purposive sampling technique, whereby the selection sampling was due to the existence of certain characteristics (Jacqueline, M. G. et. al, 2006). A

total of 70 undergraduate music students were involved in this study. Furthermore, this study adapted the study by Pangayan (2021), which contained a total of six categories and 29 items. The categories were self-efficacy, subjective norms, experiences, perceived ease of use, perceived usefulness and behavioural intention. This study also used a 5-point Likert scale as the data collection tool.

Several steps had been taken to refine and improve the validity and reliability of the study's instrument. Each item in the questionnaire had undergone a refining process for satisfactory application in the field of music. The researcher conducted a back-to-back translation process from the English language to Malay language and vice versa. This was done to enable each item to be clear-cut. The majority of respondents understood the Malay language, however, there were also foreign students. A pilot study was conducted for the purpose of correcting any weaknesses inherent in the items of this questionnaire. The Cronbach's alpha range values for each category were 0.787 to 0.921. According to Awang (2012) Cronbach's alpha value of >0.7 was sufficient and acceptable. The obtained data were analysed using the Statistical Package for the Social Sciences (SPSS) version 25. The findings were analysed with an illustrative description to observe the frequency, percentage and mean for each part of the instrument to achieve the study's objectives.

Results

A total of 70 undergraduate students from the music programme, ASTiF, UMS were involved in this study, which included 27 students from Year 1, 24 students from Year 2, 15 students from Year 3 and 4 students from Year 4. Table 1 shows the percentage of respondents by year of study. In terms of gender, overall there were 34 males and 36 female students (Table 2).

Table 1. Percentage of respondents by year of study

Year of Study	Frequency	Percentage
Year 1	27	38.6%
Year 2	24	34.3%
Year 3	15	21.4%
Year 4	4	4%

Table 2. Percentage of gender

Gender	Frequency	Percentage
Male	34	48.6%
Female	36	51.4%

Table 3. Percentage of residency area category

Category Area	Frequency	Percentage
Urban Area	22	31.4%
Sub Urban Area	15	21.4%
Rural Area	33	47.1%

All respondents started online learning studies from March to July 2021 during MCO. The respondents also registered for the subject of Major Study I CM10302 for Year 1, Major Study III CM21502 for Year 2, and Major Study V CM32902 for Year 3. These subjects involved musical instrument playing skills offered throughout the study until the end of their

music degree programme. Amongst the musical instruments learned by the students were Classical Vocal, Classical Piano, Jazz Piano, Drum, Electric Guitar, Classical Guitar, Electric Bass, Violin, Viola, Cello, Clarinet, Flute, Alto Saxophone, Tenor Saxophone, Trombone and Trumpet. Each student was taught online individually by a lecturer or tutor for one hour weekly within 14 weeks. Furthermore, the respondents' demographic data on residency area category was also explained in this study. A total of 31% of the respondents live in urban areas, 15% live in sub-urban areas and 33% live in rural areas (Table 3).

Self-Efficacy

This category was to evaluate the student's online learning readiness in major study through the aspect of self-efficacy. The overall mean and standard deviation (SD) were used to explain and answer the research questions. The percentage of responses to each item by the respondents was also explained (Table 4).

Table 4. Percentage, mean and standard deviations for self-efficacy category

Items	**Strongly Disagree**	**Disagree**	**Not sure**	**Agree**	**Strongly Agree**	**Mean**	**SD**
I can use e-learning systems for Major Instrument subjects (e.g., Google Classroom, SmartV3UMS, WhatsApp and YouTube) without the guidance of others.	5.7 %	10%	17.1%	**51.4%**	15.7%	3.61	**1.0535**
I can use the e-learning system for Major Instrument subjects even if I have never used the system before.	2.9%	12.9%	17.1%	**57.1%**	10%	3.58	0.94013
I can use the e-learning system for Major Instrument subjects just by referring to the instructions as a guide.	2.9%	10%	17.1%	**64.3%**	5.7%	3.60	0.85804
I am able to deal with any technical issues when using the e-learning system for Major Instrument subjects.	1.4%	22.9%	18.6%	**47.1%**	10%	3.40	0.99990
I can use the e-learning system for Major Instrument subjects at any time.	1.4%	12.9%	15.7%	**60%**	10%	**3.64**	0.88524
Overall mean and standard deviation						**3.56**	0.947362

Overall, the mean value and SD value for self-efficacy category were 3.56 and 0.94732, respectively. According to Ahmad, J. (2002), the mean value of 1.00 – 2.33 was low, 2.34 – 3.66 was moderate and 3.67 – 5.00 was high. This indicated that the overall mean value for this construct was moderately good. The findings of this study showed that most of the students had a moderate level of self-efficacy in their online major instruments learning during MCO. More than half of the students (51.4%) were proficient in using e-learning platforms, such as Google Classroom, SmartV3UMS, WhatsApp and YouTube. A total of 64.3% of the respondents agreed that they know how to use the e-learning platform only with the manual guidance as a guideline. Meanwhile, 60% of the respondents agreed that they could use the e-learning system for learning purposes at any time. The findings also found that the item, *"I can use the e-learning system for Major Instrument subjects at any time"*, had the highest mean value of 3.64. However, the item, *"I am able to deal with any technical issues when using the e-learning system for Major Instrument subjects"*, had the lowest mean value of 3.40. While the lowest SD value was 0.85804 for the item, *"I can use the e-learning system for Major Instrument subjects just by using the instructions as a guide"*. Overall, most of the music students had a moderately high level of confidence and perseverance despite facing various obstacles when online learning was conducted.

Subjective Norm

The overall mean value for the subjective norm category and SD were 3.43 and 0.935935, respectively, (Table 5). The findings of this study indicated that the respondents' level of subjective norm was at a moderate level. It is undeniable that the environment plays a big role in the readiness of students to implement the online learning class. However, the findings found that 45.7% of the respondents reported that they were skeptical whether peers and lecturers had an impact in using online learning during MCO. This may be because the students were less able to interact with peers or lecturers during the MCO. Therefore, cooperation needs to be enhanced between students, lecturers and faculty to monitor the students' involvement in online learning sessions. Two-way communication between the students and lecturers needs to be improved to enable the teaching process to run smoothly and to avoid students from being left behind, failed or dropouts during the MCO online learning.

Table 5. Percentage, mean and standard deviations for subjective norm category

Items	**Strongly Disagree**	**Disagree**	**Not sure**	**Agree**	**Strongly Agree**	**Mean**	**SD**
My peers think and expect me to use an e-learning system for Major Instrument subjects.	7.1%	15.7%	**45.7 %**	24.3%	7.1%	3.08	0.98897
My lecturer thinks and expects me to use an e-learning system for Major Instrument subjects.	4.3%	5.7%	**45.7 %**	32.9%	11.4%	3.41	0.92459
The management of my University/Faculty thinks and expects me to use the e-learning system for Major Instrument subjects.	4.3%	8.6%	32.9%	**42.9%**	11.4%	3.48	0.95921
Generally, I will do what is expected by the lecturer on the use of e-learning systems in Major Instrument subjects.	1.4%	5.7%	25.7%	48.6%	18.6%	**3.77**	0.87097
Overall mean and standard deviation						**3.43**	0.935935

Experience

Table 6. Percentage, mean and standard deviations for experience category

Items	**Strongly Disagree**	**Disagree**	**Not sure**	**Agree**	**Strongly Agree**	**Mean**	SD
I enjoy using computers for Major Instrument subjects.	7.1%	**38.6%**	22.9%	17.1%	14.3%	3.01	1.14253
I learn to use the internet for Major Instrument subjects.	2.9%	11.4%	21.4%	**48.6%**	15.7%	3.33	0.98056
I am proficient at saving and finding files online for Major Instrument subjects.	1.4 %	11.4%	20.0%	**51.4%**	15.7%	3.40	0.92537
I enjoy using emails for Major Instrument subjects.	5.7%	15.7%	24.3%	**45.7%**	8.6%	3.36	1.03610
I know how to upload and download files online for Major Instrument subjects.	1.4%	4.3%	10.0%	**58.6%**	25.7%	**3.41**	0.81599
Overall mean and standard deviation						**3.30**	0.98011

Table 6 shows the percentage, mean and SD for the experience category. Overall, the mean value and SD were 3.30 and 0.98011, respectively. This mean value was moderately high and indicated that the level of student satisfaction to use the computers during online learning throughout the MCO was moderately high. The data collected showed that 48.6% of the respondents agreed that they were learning by using the internet for their online learning major study. However, 51.4% of the respondents agreed that they were proficient in saving and finding files online and 58.6% were proficient in uploading and downloading files for major study subjects. However, 38.6% of the respondents expressed dissatisfaction when learning a major study subject online. This may be because the subject of major study is a subject that involves fully practical skills that require lecturers or tutors to make detailed teaching demonstrations through individuals. Instrument playing techniques need to be clearly shown before students will understand to play the instrumental techniques. Unclear sounds and displays during online teaching will affect the delivery of learning content. Students also need to have some basic installation of microphones in the computers and cable instruments to get a clear sound during online learning. Sometimes there are instruments that need to use more than one camera to get a clear screen display, such as Drum and Guitar instruments. What more if the student is just starting and a beginner, then this online learning is less effective in delivering the practical lessons. The faculty and university should address

these issues because it shows the students' low level of readiness to fully switch to online learning.

Perceived Ease of Use

Table 7. Percentage, mean and standard deviations for perceived ease of use category

Items	**Strongly Disagree**	**Disagree**	**Not sure**	**Agree**	**Strongly Agree**	**Mean**	**SD**
The e-learning system simplifies my learning process in Major Instrument subjects.	4.3%	14.3%	34.3%	**38.6%**	8.6%	2.95	0.77388
The e-learning system is easy to use in Major Instrument subjects.	4.3%	**47.1%**	14.3%	10.0%	24.3%	2.91	0.57059
The e-learning system makes it easy for me to get the information needed for Major Instrument subjects.	5.7%	15.7%	**32.9%**	**32.9%**	12.9%	2.85	0.76555
The interactions in e-learning system are direct and easy to understand for Major Instrument subjects.	5.7%	21.4%	20.0%	**40.0%**	12.9%	2.93	0.72574
I find that e-learning systems in Major Instrument subjects are flexible to interact with.	8.6%	**37.1%**	22.9%	20.0%	11.4%	2.45	0.65685
It is easy for me to become proficient in using e-learning systems for Major Instrument subjects.	8.6%	11.4%	25.7%	**42.9%**	11.4%	2.85	0.60560
Overall mean and standard deviation						**2.82**	0.68303

The perceived ease of use aspect of students in online learning and teaching was also a concern in this study analysis. Table 7 shows the percentage, mean and SD for the perceived ease of use category. The overall mean and SD values were 2.82 and 0.68303, respectively. This mean value was relatively low and showed that the students faced various difficulties while implementing online learning. According to the data collected, 32.9% of the students reported that they were unsure whether the e-learning system could help in their online learning. However, 37.1% of the respondents reported that the online e-learning system was

inflexible for major study subjects. Additionally, 47.1% of respondents stated that the e-learning system used was not user friendly. This situation might be due to the existing e-learning system was unable to meet the needs of students in learning major instruments, which were much related to technical aspects and sound. The application used was also less flexible, causing students or lecturers to have less choice. For example, the Outcome Based Education System (OBE) application for attendance is sometimes difficult for students to access if the internet connection is bad, therefore the need for other alternative ways that are easier to access.

Perceived Usefulness

The next objective is how the students perceived the usefulness of online teaching and learning of the major instruments subject during MCO. Table 8 shows the overall percentage, mean and SD values for the perceived usefulness category. The overall mean and SD values were 2.28 and 0.586446, respectively, which were at a low level. The findings showed that the students felt less favourable in the major study online learning. According to the data obtained, the majority of respondents (30%) strongly disagree with the implementation of online learning for the music subject that requires hands-on learning. They also disagree that the use of e-learning systems made their major instrument learning easier. Furthermore, 34.3% of respondents also expressed disagreement that the use of e-learning systems improved their learning achievement in major study subjects. Consequently, 41.4% of respondents disagree that the use of e-learning systems helped to complete their major instrument assignments faster. This is obviously due to the nature of this subject, which is entirely practical. This subject requires a lecturer or tutor to demonstrate clearly in terms of playing techniques either through visuals or sound during the online lessons. This is quite difficult to do through online learning, especially if the internet connection is bad with frequent interruptions. This situation makes it difficult to achieve the learning objectives set by the program.

Table 8. Mean and standard deviations for perceived usefulness category

Items	Strongly Disagree	Disagree	Not sure	Agree	Strongly Agree	Mean	SD
I feel that the e-learning system is helpful in my Major Instrument study that requires hands-on (practical) learning.	**30.0**	15.7	20.0	18.6	15.7	2.08	0.55927
The use of an e-learning system made my Major Instrument learning easier.	5.7	**30.0**	28.6	21.4	14.3	2.26	0.52528
The use of e-learning system improves my learning achievement in Major Instrument study.	8.6	**34.3**	32.9	12.9	11.4	2.36	0.69922
The use of e-learning system increases my learning effectiveness in Major Instrument study.	8.6	**31.4**	15.7	30.0	14.3	2.28	0.45075
The use of e-learning system helps me complete my Major Instrument assignments faster.	5.7	**41.4**	22.9	15.7	14.3	2.42	0.69771
Overall mean and standard deviation						**2.28**	0.586446

Behavioural Intention to Use

Behavioural intention to use was also included in this analysis. Table 9 shows the overall percentage, mean and SD for behavioural intention to use category. The mean and SD values as a whole were 2.48 and 0.60951, respectively, and it was considered as low level. The findings indicated that the overall student's behavioural intention to use for online learning implementation was very low and unsatisfactory. The results of the Likert scale percentage are shown in Table 7. The majority of students (40%) stated that they disagree to use the e-learning system for major instrument courses in the future. Moreover, 34.3 % of respondents stated that they disagree with the recommendation on the use of e-learning systems for major instruments to others. This may be due to the inadequacy of major instruments taught online as they are entirely practical. This also indicated that the students were not fully prepared to undergo online learning lessons, moreover, when they often face problems of poor internet connection, unconducive environment and lack of training facilities. Therefore, the university may need to think of other alternative ways, such as holding hybrid classes in the future so that practical classes can be conducted face-to-face. However, 44.3% of respondents agreed to use online learning for examination preparations and to complete assignments for the

subject of Musical Instruments. This may be because the students have relatively easy access to materials on the internet for preparation of examinations and assignments.

Table 9. Mean and standard deviations for behavioural intention to use category

Items	**Strongly Disagree**	**Disagree**	**Not sure**	**Agree**	**Strongly Agree**	**Mean**	**SD**
I will use the e-learning system for Major Instrument study more often in future.	8.6	35.7	12.9	**31.4**	11.4	2.24	0.59592
I will recommend the use of e-learning systems for Major Instrument study to others.	7.1	**34.3**	30.0	12.9	15.7	2.38	0.52021
I plan to use the e-learning system for Major Instrument study in the future.	8.6	**40.0**	30.0	8.6	12.9	2.40	0.59545
I intend to use the e-learning system in preparation for exams and completing assignments for my Major Instrument study.	2.9	11.4	20.0	**44.3**	21.4	2.90	0.72646
Overall mean and standard deviation						**2.48**	0.60951

This study also identified the main issues often faced by music students during the implementation of online learning in major study subjects. Table 10 shows the percentage value of the main issues category. The findings indicated that poor internet connection (48.5%) was the highest problem faced by the music students. Followed by difficulty to understand the teaching content (12.8%), unclear audio and visual (11.4%), unconducive environment (8.5%), lack of motivation (4.2%), lack of communication between lecturer and student (2.8%), nothing (2.8%), lack of discipline (1.4%), electricity supply disruption (1.4%), undeveloped skills (1.4%), lack of exposure to face-to-face class (1.4%), lack of focus (1.4%) and lack of proper guidance (1.4%).

Table 10. Percentage of main issues category

Reason	Frequency	Percentage
Poor internet connection	34	**48.5%**
Difficulty to understand the teaching content	9	12.8%
Audio and visual issues	8	11.4%
Unconducive environment	6	8.5%
Lack of motivation	3	4.2%
Lack of communication between lecturer and student	2	2.8%
Nothing	2	2.8%
Lack of discipline	1	1.4%
Electricity supply disruption	1	1.4%
Undeveloped skills	1	1.4%
Lack of exposure to f2f class	1	1.4%
Lack of focus	1	1.4%
Lack of proper guidance	1	1.4%

Discussion

One of the steps taken by the university to continue teaching and learning during the COVID-19 MCO was through the implementation of teaching online learning. Although this online learning method has long been implemented at the university level, it was not comprehensive until the COVID-19 pandemic hit worldwide. This has resulted in online learning methods being fully implemented in the education system, including in all institutions of higher learning in Malaysia. This implementation had a negative or positive impact on the overall quality of teaching and learning delivery to the students.

Similarly, the learning of undergraduate music students at UMS was still carried out even during the MCO. Based on the results of the analysis, the findings showed that the students' level of preparation for online learning was low. A large number of respondents reported that they were less prepared in conducting online learning classes. The findings supported the studies by Pangayan (2021), Lee (2020), Isa and Latiff (2020), Chung et al. (2020) and Choong (2020). Therefore, the music students also showed a low level of satisfaction when following online learning and showed a less satisfactory perception of the effectiveness of its implementation. Furthermore, the findings showed that they were less confident to continue with the online learning classes in the next semester if given the choice. This low level of student readiness was due to various factors related to the online learning system, instructor training and speed of internet usage.

The study's findings showed that *poor internet connection* was the highest problem faced by the music students followed by *difficulty to understand the teaching content* and *unconducive learning environment.* Moreover, 48.5% of the students reported that they often faced the problem of insufficient internet connection during e-learning. The study's finding was in line with previous studies conducted by Pangayan (2021), Lee (2020), Isa and Latiff (2020), Chung et al. (2020) and Choong (2020). This might also be closely related to the respondents' (47.1%) area of residence, who mostly live in rural areas (Table 3). Obviously, internet connection in urban areas was much better compared to rural areas. Therefore, the study's findings were influenced by factors of the respondents' living area.

The music students also faced challenges in terms of the computer equipment that suits the needs for online education, especially a clear sound as well as good screen display equipment. Students need to incur the cost of purchasing microphones and cables suitable for

musical instruments and for the computers to get a good sound quality and display during the online learning. However, not all students have the ability to buy expensive equipment, especially students from the B40 or low-income group. As a result, students have to continue online learning with poor or bad sound and display quality. Therefore, this affected the effectiveness of learning delivery.

Additionally, most students were more comfortable using mobile phones when following e-learning because it was easy and fast to use compared to laptops. This situation somewhat makes it difficult for students to focus on the learning topics because of small screen display and not user friendly. The university needs to give some consideration to this issue to overcome the problem, which still existed until today.

According to Free Malaysia Today (2020) and Imm (2021), one of the most significant constraints faced by students, especially from the low-income B40 families was family economic factor. Prior to MCO, music students relied entirely on facilities provided by the faculty, such as recording studios, cubical for music practice rooms, equipment, computer labs and performance stage. These learning facilities are important to the students in their music learning study. However, after the MCO was implemented, students were unable to use all the facilities and only rely entirely on their own equipment and facilities in their homes. This situation somehow affected the students' learning due to the unconducive learning environment.

However, the findings of the study found that music students have high self-efficacy when using computers for online learning purposes. Furthermore, the students had good skills in using computers, such as getting material on the internet, uploading, emailing and many others. Nevertheless, the students were also faced with the issue of e-learning platform design that was unconducive and less user-friendly, especially in relation to the production of sound and good display. Therefore, the university should consider this matter, whereby appropriate measures should be taken, such as creating a platform for learning that suits the needs and requirements of their respective fields.

In addition, the findings found that music students were more comfortable and preferred to hold face-to-face learning sessions in the future, especially for major instrument classes. Therefore, the majority of students reported that online learning was less appropriate for practical subjects, such as musical instruments. This issue was closely related to the problem of poor internet connection and inadequacy of online learning for major instrument subjects, which is entirely practical in nature. The problem of internet speed had a huge impact on the implementation process of online learning. This included the internet's ability to download content, complete and submit assignments, answer exams, search for materials and many others. The government needs to take serious steps to address this internet speed issue to enable students have better experience for online learning.

Conclusion, Recommendation and Future Work

The online learning method has given tremendous benefits to our education system, even during the MCO learning is still being carried out. However, the overall online learning implementation needs to be improved from time to time so that it does not affect the quality of teaching and learning. Some fragilities had been found in this study, such as poor internet connection, limited broadband data, practical courses were less suitable to be taught online, lack of computers that supported online learning, audio and visual issues, unconducive

learning environment, lack of technical support, lack of communication between lecturers and students and difficulty to understand the teaching content. These are very significant issues to be considered to help in the implementation method of online learning music classes run smoothly in the future.

Furthermore, the findings of this study found that the online learning method was unsuitable to be implemented on music topics that involved practical rather than theory. This was because learning musical instruments required instructors to demonstrate in-depth instrument playing technique individually. Demonstrations that were less clear and often get distracted affected the students' poor comprehension, especially for the beginners' music students, who just started their studies. Each instrument also has a size and technique of play that varies according to their respective disciplines. Therefore, teachers and students need to make more preparation before conducting online classes, for example, they need to install more than one video camera to get a clear point of view. Additionally, teachers or students need to buy an extra computer microphone to get a clear musical instrument sound, not all musical instruments are able to produce a loud sound.

Knowledge of microphone installation techniques and microphone setting also plays an important role during the online learning session. Lecturers or tutors and students need to know how to install and set the microphone correctly to produce a clear sound during online lessons. Therefore, to increase the readiness of music students in this kind of situation, the university needs to organise more computer skills training sessions, especially involving microphone setting techniques and help explain all the computer equipment that are needed. The university should always provide help desks and technical infrastructure to students at all times for the students to get help at any time if they encounter technical problems.

Consequently, the university needs to increase the effectiveness of the online platform by providing more appropriate learning methods according to the field of course taken for the lecturers, tutors and students to manage and obtain learning materials in a better way. In addition, this e-learning method could be carried out more systematically and effectively according to the needs of each field. Through strengthening the university's platform, it is hoped that it will be able to minimise the usage issues of the various platforms that are less suitable for the needs of local students.

The issue of poor internet connection and limited broadband data were important findings in this study, which were also in line with previous studies by Pangayan (2021), Lee (2020), Jesus and Latiff (2020), Chung et al. (2020) and Choong (2020). A total of 47.1% of the respondents took online classes and live in rural areas with very poor internet access during MCO. There were students who live in the rural areas, who went to town every time an online learning lecture was conducted to get a good internet connection. This situation makes it difficult for both lecturers and students to carry out online learning classes and affected the students learning throughout the semester.

Various measures have been taken by UMS to address this problem. Amongst them was by encouraging students to stay on campus for the university to provide free internet facilities to these students. Chung et al. (2020) stated that the speed factor and the university's internet system were important to enable online learning methods to be carried out successfully.

A more in-depth study on the satisfaction of online learning can be done in the future by adding more constructs and categories in the instrument as well as conducting detailed

interview sessions for students and lecturers. Apart from that, the issue of suitability of online learning platforms is also a concern in this study, especially in terms of function, sound clarity and display specifically for learning the subject of major study for students in the music programme. Proposals to develop a specific online learning system for the major study subject are recommended. However, further discussions between students, lecturers and faculty on the appropriate design of the e-learning system should be done to resolve any issues and challenges that arise during online learning in the future.

Further studies on the effectiveness of the implementation of online learning during MCO could be extended to other music subjects, such as theory, ear training, history, audio technology and composition. The sample population of respondents could also be increased by involving students from other universities or music colleges to enable the obtained study's results to be more accurate and comprehensive. It is hoped that this study could provide data and information to help the university improve the quality and implementation of online teaching and learning of music programmes in the future.

Acknowledgment

This is in the context of the ongoing studies which is part of the Research Project SDK0284. The authors wish to express gratitude to the Universiti Malaysia Sabah for their financial assistance. Besides that, the authors also gratitude all music students who took part in this research.

References

Ahmad, J. (2002). *Pemupukan budaya penyelidikan dikalangan guru di sekolah: Satu penilaian*. Ph.D. Thesis, Fakulti Pendidikan Universiti, Kebangsaan Malaysia, Bangi.

Alqabbani, S., Almuwais, A., Benajiba, N., and Almoyad, F. (2020). Readiness towards emergency shifting to remote learning during COVID-19 pandemic amongst university instructors. *E-Learning and Digital Media, 1–20*. https://doi.org/10.1177/2042753020981651

Amir, M. T. (2020). "Covid: Penggunaan atas talian akan menjadi normal baharu meskipun setelah pkp dibubarkan" Universiti Malaysia Kelantan. Retrieved from https://www.umk.edu.my/index.php/ms/penerbitan/berita-terkini/4-latest-news/466-covid-penggunaan-atas-talian-akan-menjadi-normal-baharu-meskipun-setelah-pkpdibubarkan.

Awang, Z. (2010). Research Methodology for Business and Social Sciences. *Universiti Teknologi MARA*. Malaysia.

Awang, Z. (2012). *Research methodology and data analysis*. Penerbit Universiti Teknologi MARA Press. Malaysia.

Biasutti, M. (2017). Strategies adopted during collaborative online music composition. *Int. J. Music Educ. 36, 473–490*. doi: 10.1177/0255761417741520.

Biwer, F., Wiradhany, W., oude Egbrink, M., Hospers, H., Wasenitz, S., Jansen, W., et al. (2021). Changes and adaptations: how University students self-regulate their online learning during the COVID-19 pandemic. *Frontier in Psychology*. 12:642593. doi: 10.3389/fpsyg.2021.642593

Choong, P. Y. (2020). ''COVID-19: Impact on the tertiary education sector in Malaysia,'' 'Crisis Assessment,' Penang Institute, Pulau Pinang, Malaysia, Tech. Rep., 2020. [Online]. Available: https://penanginstitute.org/wp-content/uploads/2020/05/IMPACT-ON-THE-TERTIARY-EDUCATIONSECTOR-IN-MALAYSIA.pdf

Chung, E., Noor, N. M., and Vloreen Nity Mathew (2020). Are You Ready? An Assessment of Online Learning Readiness amongst University Students. *International Journal of Academic Research in Progressive Education and Development, 9 (1), 301–317*.

Department of Statistics Malaysia (2020). Current population estimates, Malaysia, 2020. Retrieved June 1, 2022 from https://www.dosm.gov.my/v1/index.php?r=column/cthemeByCat&cat=155&bul_id=OVByWjg5YkQ3MWFZRTN5bDJiaEVhZz09&menu_id=L0pheU43NWJwRWVSZklWdzQ4TlhUUT09#:~:text=Malaysia's%20population%20in%202020%20is,to%203.0%20million%20(2020).

Free Malaysia Today (2020). For poor families, online learning is a drag. (n.d.). Free Malaysia Today (FTM). [Online] https://www.freemalaysiatoday.com/category/nation/2021/01/22/for-poor-families-onlinelearning-is-a-drag/ (20 March 2021)

Henriksen, D., Creely, E., and Henderson, M. (2020). Folk Pedagogies for Teacher Transitions: Approaches to Synchronous Online Learning in the Wake of COVID-19. *Journal of Technology and Teacher Education, 28 (2), 201-209*. Waynesville, NC USA: Society for Information Technology & Teacher Education. Retrieved June 21, 2022 from https://www.learntechlib.org/primary/p/216179/.

Hallam, S. (1998). *Instrumental teaching: A practical guide to better teaching and learning*. Oxford: Heinemann Educational.

Isa, K., Latif, A. (2020). "Internet Browsing Trends amongst Malaysians during Movement Control Order (MCO) Period", International Journal of Emerging Technologies in Engineering Research, Vol. 8, No. 4, 2020.

Imm, N. S. (2021). More support needed for B40 families in online learning. New Straits Times.

Jacqueline, M. Guarte and Erniel B. Barrios (2006). Estimation Under Purposive Sampling, Communications In Statistics - Simulation And Computation, 35:2, 277-284, DOI: 10.1080/03610910600591610.

Lee, S. (2020). "Poor Internet connections, no computers hinder online learning in Sabah". The Star.

Pangayan, V. (2021). Pandemic COVID-19 and E-Learning in Higher Education: Creative Art Student's Experiences. *International Conference on Research in Education and Science*. Antalya, TURKEY.https://orchid.org/0000-0002-3472-0968.

Profdten, D., and Ahmad, R. (2021). COVID-19: Current situation in Malaysia (updated daily). *The Star*. Retrieved June 01, 2022, from https://www.thestar.com.my/news/nation/2020/03/23/covid-19-current-situation-in-malaysia-updated-daily

Rucsanda, M. D., Belibou, A. and Cazan, A. (2021). Students' Attitudes Towards Online Music Education During the COVID-19 Lockdown. *Frontier in Psychology*, *17*. https://doi.org/10.3389/fpsyg.2021.753785

Sia, J., and Adamu, A. (2020). "Facing the unknown: pandemic and higher education in Malaysia", Asian Educ. Dev. Stud., vol. 10, no. 2, pp. 263–275, 2020, doi: 10.1108/AEDS-05-2020-0114.

Talia. R. (2020). *Kajian kes impak perintah kawalan pergerakan kepada penduduk Malaysia*. Jabatan Perangkaan Malaysia.

Undergraduate Prospectus Universiti Malaysia Sabah (2020). Academic Service Division. [Online] http://bpa.ums.edu.my/index.php/en/undergraduate-prospectus/2019-2020/fakulti/fksw (03 March 2021).

Widodo, S., Wibowo, Y., and Wagiran, W. (2020). Online learning readiness during the COVID-19 pandemic. *Journal of Physics: Conference Series, 1–4*. https://doi.org/:10.1088/1742-6596/1700/1/012033

Xhelili, P., Ibrahimi, E., Rruci, E., and Sheme, K. (2021). Adaptation and perception of online learning during COVID-19 Pandemic by Albanian University Students. *International Journal on Studies in Education (IJonSE), 3 (2), 103-111*.

Contact email: jinkysoo@ums.edu.my