5th UUM International Qualitative Research Conference (QRC 2022) 28-30 November 2022, [Online] Webinar

Implementation of Home-Based Teaching and Learning During COVID-19 and Future Outbreak

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Abstract

The COVID-19 pandemic has an enormous impact on human life. In the context of education, information technology (IT) has taken the role of the classroom through online teaching. Therefore, the objectives of this study are to explore teachers' perception of the concept of home-based teaching and its implementation. This study applied a qualitative research methodology where semi-structured interviews were conducted through phone calls involving several primary school teachers in Perlis, Malaysia. The study found that the teachers understood the concept of home-based teaching and obtained adequate information for the purpose of teaching from responsible parties. Teachers also implemented their home-based teaching through various platforms such as Google Meet, WhatsApp, and Telegram with varied teaching methodologies to ensure smooth teaching processes. This study emphasizes that effective communication, training, collaboration, creativity and constructive feedback are pertinent to ensure effective implementation of home-based teaching and learning.

Keywords: implementation of Home-based teaching and learning, Covid-19, Perlis

1. INTRODUCTION

The coronavirus (COVID-19) is a disease that has changed the pattern of daily human activities. The virus is transmitted through direct human contact and airborne particles, resulting in the death of millions of people all over the world. According to Hossain et al., (2021), Cuenca-Soto et al., (2021) most countries discontinued all inperson engagements, such as; in-person education, due to the respiratory sickness posed by the COVID-19 pandemic. Therefore, educators resorted to quickly converting their classroom lessons to online versions. The use of the internet is not new in the education field as it has been commonly used since 1990 through online learning, distance teaching, massive open online courses (MOOCs) (Singh and Thurman, 2019; Wahid et al. 2019), and other types of learning via the internet. Although traditional pedagogical technologies such as a Smartboard or PowerPoint are widely accepted and used, the actual integration of technology-supported teaching for pedagogical purposes is yet another level (Van der Spoel et al., 2020).

In recent years, research shows that there has been a change to the teaching and learning methodology in which the traditional face-to-face teaching and learning has been replaced with the new method of online teaching and learning that uses information technology (Oliveira et al., 2021; Weidlich & Kalz, 2021; Adedoyin & Soykan, 2020). Since the outbreak of the pandemic, the number of social media applications has increased. Online platforms such as Webex, Zoom, WhatsApp, Telegram, and Google Classroom (GC) are used as the medium to continue the teaching and learning processes as the work from home (WFH) policy has been implemented (Tsao et al., 2021; Putri et al., 2020). In the light of that, teaching and learning processes are conducted from home without the need to go to school.

Just like other countries in the world, Malaysia is not an exception in receiving the same impact due to the COVID-19 pandemic. Consequently, The Federal Gazette Emergency and the implementation of (WFH) policy have affected the schooling system of the country (Mudaly & Mudaly, 2021). Furthermore, the Ministry of Education

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(MOE) (2020) has introduced Home-based teaching and learning that can implemented from home, community center, or any other suitable locations. Paredes et al., (2020) demonstrated that teaching can be implemented online and/or offline or off-site in a structured and planned manner. Hence, a teacher can implement teaching from home by using one of the methods or a combination of the two methods depending on the suitability. For instance, if the school is located in a rural area with no internet accessibility, the offline method should be used.

To ensure the continuity of the teaching and learning process, MOE (2020) had released a teaching and learning manual online, 'Teaching and Learning at Home Manual' to help teachers implement their home-based teaching and learning as an alternative to the new norm. Therefore, this home-based teaching and learning manual can provide guidance to teachers in implementing home-based teaching and learning in a structured and planned manner, enabling students to follow it optimally. Apart from that, the manual can also be used as a reference for school administrators, district education offices (PPD), state education departments (JPN), as well as other divisions involved in MOE.

- 1. Online home-based teaching and learning happens when there is available access to the internet and to the use of devices that allow students to learn in real-time via the following:
 - Learning platforms such as Digital Educational Learning Initiative Malaysia (DELIMa), Cikgootube, EduWebTV, and social media applications; or
 - Applications such as Google Meet, or Microsoft Teams live streaming.
 - Gamification, video, audio clip, eBook, recording, or online assignments.
- 2. The implementation of home-based teaching and learning requires students to use devices with screens such as computers, laptops, tablets, or smartphones within a certain period. The time used on these devices is called students' screen time.
- 3. Guidelines on the maximum screen time based on age taken from www.eyepromise.com with reference from The American Academy of Pediatrics (AAP) and World Health Organization (WHO) are as follows: Screen time a day for preschool is 1-hour, primary school is 1-2 hours, lower secondary is 2-3 hours, and upper secondary is 3-4 hours.
- 4. Teachers need to set the appropriate screen time by considering parents/guardians' opinions.
- 5. Offline home-based teaching and learning happens when students learn using devices such as computers, laptops, tablets, or smartphones without access to the internet. Learning process can also occur when students use textbooks or other learning materials.
- 6. Teachers can download materials in the form of videos, audios, slides, notes, and exercises from sources as mentioned in paragraphs 7.1.1 and 7.1.3. The process of downloading the materials is done when there is access to the internet and given to the students through the appropriate medium of communication.
- 7. Teachers need to set the appropriate offline screen time by considering parents/guardians' opinions.
- 8. Off-site learning is a learning method that happens in a location such as a community center, or any premises declared as a temporary evacuation center due to a disaster or epidemic. Off-site learning is implemented in accordance with the Surat Siaran Kementerian Pendidikan Malaysia Bilangan 8, 2016 Garis Panduan Pengurusan Pengajaran dan Pembelajaran Akibat Bencana.
- 9. Learning process can occur independently or with guidance from the Academic Support Team (AST) which consists of PPD officers or appointed schoolteachers, (MOE,2020).

Based on the manual provided by the MOE above, there are various methods that can be used by teachers in implementing online teaching and learning sessions including modules, home-based projects, and other methods such as flipped classroom, inquiry-based learning, mastery learning, contextual learning, and problem-solving learning. The implementation methods have also been stated in which teachers should restructure their annual lesson plan, determine the flexible delivery methods depending on the current situation by considering students' resources; preparing materials that are easily obtained, accessible, and suitable with the home-based teaching and learning method used. Additionally, teachers also need to make sure that students receive their tasks and exercises planned, and use a variety of assessment methods namely quizzes, exercises, and projects to determine students' achievement.

Though the guidelines are given with clear details, the question of to what extent are the teachers prepared in implementing online teaching and learning or home-based teaching and learning remains. This is due to the fact that for some of the methods mentioned, not all teachers have the knowledge and skills in IT to conduct activities such as the flipped classroom. Furthermore, MOE has also stated that the teaching and learning process should also consider the resources that students have. Here, the basic resources are devices and internet access. Therefore, there are issues on the challenges and limitations in implementing home-based teaching and learning that need to be considered if it is to be implemented.

2. LITERATURE REVIEW

Although online teaching and learning is used as an alternative to replace the face-to-face method, there is an argument in teachers' perception of home-based teaching and learning. Thus, a clear definition of home-based teaching and learning is important as it contributes to the success of its implementation in the future.

The definition explained by MOE (2020), Schultz & Demers (2020) described home-based teaching and learning as one of the teaching and learning methods that are planned in order to create a deep virtual experience. Here, the term planning is used for the aspect of before and during its implementation. The aspect of planning is being emphasized to achieve the goals of the teaching and learning process which are to provide in-depth knowledge and experience on the topics learned. In other words, since there are no face-to-face activities, online teaching and learning requires teachers to plan their lessons thoroughly as good and organized lesson plans will provide students with the best learning experience.

The planning aspect was also stressed as according to Korkmaz & Toraman, (2020); Noor et al., (2020), and Willging & Johnson, (2004), the problem of interaction and reaction during online teaching could lead to ineffective teaching and learning session since there is no face-to-face interaction as traditional classes, making it difficult for students to directly ask questions and get answers. On that account, teachers' perspectives on the definition and concept of online teaching and learning are very important as they need to change from the old method to a new method that requires them to master instructional design and to be skilled in using certain software when planning their lessons and in assessing students in the future (Schultz & DeMers, 2020). This shows that teachers in the new norm era need to understand and make appropriate changes during this pandemic.

Apart from teachers' perspectives on the method of implementing home-based teaching and learning, up till today, there are issues with the effectiveness of online teaching and learning methods (Racheva, 2018). Despite some of the advantages, such as safer environment -since there is no need for the face-to-face meeting, especially during a pandemic-, time-saving, minimum mobility, improving students' critical skills, and allowing students to gain knowledge and experience beyond the boundaries of the classroom due to the use of technology (Sezer, 2016; Feeney et al., 2008), there are also negative effects such as adverse effects on bone growth due to excessive use of technology for a long time (McVeigh et al., 2016), negative students' emotional development (Boyd et al., 2014), and also underage students' exposure to inappropriate, unfiltered, and unsafe information (Dickson et al., 2019). As a result, the issues of monitoring and appropriate methods to ensure the health and welfare of teachers and students came into view.

Aside from that, there are also issues of teachers' consideration and concern on the challenges faced by some students in terms of facilities, equipment, and access to the internet especially for students from low and middle socioeconomic backgrounds, be it in rural or city areas. Economic constraints for the poor will prevent students from being fully involved in the online teaching and learning session (Morgan, 2020). Therefore, teachers need to know students' backgrounds before implementing home-based teaching and learning methods.

The implementation of home-based teaching and learning has its own advantages and challenges, and a few aspects need to be taken into consideration. Noor et al., (2020) stated if teachers provide information and reminders before the class session, it could lead to effective communication between teachers and students, making the online teaching and learning session more impactful. Additionally, teachers could also apply the approach of group learning suggested by Ozakara and Cakir (2018) in which if students could not participate in online classes, they could contact their classmates to obtain information on that specific class. Hence, teachers need to explore and use various teaching approaches and applications that could attract students' interest to participate actively in online classes.

To conclude, home-based teaching and learning is one of the methods used to ensure the continuity of the teaching and learning process especially during COVID-19 pandemic. Although there are challenges in its implementation, if all related parties mainly the teachers are clear on the needs of online teaching and learning, the techniques in

conducting online classes, cooperation between students and parents as well as deep and comprehensive involvement of the government in providing the infrastructure needed to ensure that all parties could have access to a good internet connection, home-based teaching and learning sessions can be implemented successfully.

2.1 Research objectives

This study is done with the objectives to examine the extent of teachers' perception of online teaching and learning, and the extent of its implementation through the method of working from home (WFH) during the movement control order (MCO) gazetted by the government.

The research questions are as follows:

- i. What are perceptions of teachers towards home-based teaching and learning?
- ii. How do teachers implement home-based teaching and learning during Covid 19?

3. METHODOLOGY

The researchers had chosen the method of case study, and a national primary school located in Arau, Perlis was chosen as the location of study. The school is situated by the roadside and is one of the excellent schools in Perlis. The researchers conducted semi-structured interviews as the main data collection method as it is seen as the best method to acquire in-depth information (Creswell, 2014).

Table 1: List of participants

Table 11 Zibt of participants		
Participants	Subject teaching	
Teacher N	Geography	
Teacher A	Mathematic	
Teacher R	REBT	
Teacher I	History	
Teacher M	Science	

Table 2: Details on the day, date and time of the interview

No	Participants	Day	Date	Time
1.	Teacher N	Monday	24 May 2021	10.00 a.m 10.40 a.m.
2.	Teacher A	Monday	24 May 2021	3.00 p.m. - 3.45 p.m.
3.	Teacher R	Wednesday	26 May 2021	2.30 p.m. - 3.15 p.m.
4.	Teacher I	Monday	31 May 2021	9.00 a.m. – 9.40 a.m.
5.	Teacher M	Tuesday	1 June 2021	11.00 a.m11.40 a.m.

Table 3:Summary of the data analysis process

Level	Activities	Table 3.Summary of the data analysis process	
One	Data transcription process:		
	i.	Transforming audio data into text data	
Two	Review:	-	
	i.	Reviewing information from participants of the study	
	ii.	Analyzing interview data	
Three	Understanding data from interviews:		
	i.	Identifying and understanding the interview data	
	ii.	Iteration of data analysis	
Four	Determining theme and subthemes:		
	i.	Identifying codes thematically	
	ii.	Categorizing codes according to subthemes	
	iii.	Building themes categories based on subthemes.	
	iv.	Reviewing themes	
		Validating themes with fellow researchers	
Five	Theme ana	Theme analysis:	
	i.	Defining themes based on the categories of research questions.	
	ii.	Assessing the flow of findings	
Six	Writing the findings		

4. FINDINGS AND DISCUSSION

Research Question 1: What are perceptions of teachers towards home-based teaching and learning?

Generally, all the participants of the study provided different perspectives of online teaching and learning. The findings from the question related to teachers' perception of home-based teaching and learning are that one of the methods needed during the COVID-19 pandemic, teaching session that uses information technology (IT), teaching session that does not involve face-to-face meeting and physical contact, and the use of various teaching platforms such as Google Meet, WhatsApp, and Telegram. The following are the findings from the study related to teachers' perception of home-based teaching and learning.

"The new norm of home-based teaching and learning lack exposure on its meaning previously. Later, it has become a need due to the pandemic. It is a new thing, be it for the students, parents, or even teachers. In my opinion... online teaching and learning is what we know, which is teaching and learning sessions done from home, and is implemented online..." (Teacher N).

"Online teaching is implemented not at school, but from home. Actually, it is more challenging than previous teaching and learning (PdP) as we could not see our students and could not have interaction. Hence, it is hard to receive feedback from students...." (Teacher A).

"In my opinion, home-based teaching and learning implemented during the new norm is when a teaching and learning process is done through cyberspace. Teachers and students need to use the internet for the teaching and learning process. This method is implemented without the need for students and teachers to meet face-to-face" (Teacher R).

"Home-based teaching and learning means that the teaching and learning is implemented online. It requires access to the internet, and students, as well as teachers, need to have any devices. However, if students have a problem with internet connection, we have to use other methods, such as teachers need to prepare modules for the students. If it is done online, question and answer session resume as usual, but without meeting face-to-face and is done remotely...." (Teacher I).

"...in my opinion, home-based teaching and learning is implemented but without meeting face-to-face as conducted in school, but by using various platforms such as Google Meet, Telegram, and WhatsApp to deliver the teaching and learning materials...." (Teacher M).

Based on the findings of the study, it can be concluded that in general, the perception of teachers was interviewed that online teaching involves IT, no face-to-face meetings, and requires teachers to have skills so that the teaching session can be done more effectively. This is something that needs to be understood by the teachers, that not all parents could afford to provide the complete facilities such as devices and good internet connection. Thus, if a teacher decides to use the online method which is by using the internet, there will be possibilities of underprivileged students being left behind. That being the case, it needs to be understood that there are other methods which can be used namely calling students, emailing their assignments, or learning materials, or by posting notes to specific students (Morgan, 2020).

As Malaysia implemented home-based teaching and learning as a method in delivering the teaching and learning, again, in order to make it successful, a clear understanding of the definition is very important as teachers need to plan in detail, clear on their students' abilities, devices owned, skills in using the devices as well as access to the internet.

In general, it can be concluded that teachers' perception may further be enhanced with the support of school administrators in sharing the latest information on online learning. Since it is not clear when the pandemic will end, and to ensure that there are no students being left behind, understanding is the first important step for teachers in order to conduct teaching sessions more effectively and smoothly.

Research Question 2: How do teachers implement home-based teaching and learning during Covid 19?

Next, this research is also done with the aim to explore teachers' teaching practices when implementing home-based teaching or online teaching. Based on the findings, it was found that teachers implemented their lessons according to the regulations set by MOE (2020). Some of the ways used by the teachers in implementing online teaching were by using learning platforms such as Digital Educational Learning Initiative Malaysia (DELIMa), applications such as Google Meet, YouTube, and WhatsApp. There were also some teachers who used textbooks, modules, and notes that were given in advance before the movement control order (MCO) was gazette.

"...for Form 2 schedule, there is one session of one and a half-hour in a week. Usually, I would use WhatsApp to remind the class and to give the password for Google Meet. Then, I would use DELIMa and Telegram applications to share files and learning materials since it is more convenient compared to WhatsApp...." (Teacher N).

"I have prepared modules or exercises or small notes for the students to refer to before the school was closed, hence I think my teaching session becomes a lot easier...." (Teacher N).

"We look at students' needs based on our experience on MCO last year. It was found that students usually need notes from the teachers. So, I prepared some notes before MCO was announced. Some of the applications that I used were DELIMa which was provided by MOE and YouTube. Apart from that, I also used textbooks and modules which have been distributed before schools were ordered to close by the government...." (Teacher A)

"Usually, one class is for one hour or more, if we follow our home-based teaching and learning schedule, one subject of two hours per day. One hour is for lecture and one hour is for tutorial but sometimes I have provided them with the modules, exercises, I give time for students to complete them. So, I shared the materials in the WhatsApp group. So, they obtain the materials and submit them there in the period of two hours. If it was offline learning, I would completely use the two hours, but if it was online learning, I would use Google Meet for about an hour. I also used OBX. As a teacher, we need to explore a lot of things and find suitable methods for our students...." (Teacher I).

"I follow the allocated time which is two hours per session and only one session in a week. Tutorial is included in the two hours. Usually, I use Google Meet because majority of the students can use Google Meet. In terms of internet connection in my area, I live in the city area so there is no problem..." (Teacher I).

"I use the Wi-Fi facility in my house. The applications that I use are WhatsApp, Google Meet, and Google Classroom..." (Teacher R).

Apart from that, there were also teachers who taught according to a flexible time between teachers and students by taking into consideration break time as well as comfort and enjoyment during study time. A teacher that was interviewed explained that he taught at a flexible time, and sometimes at night because students feel comfortable and enjoy studying at night.

"I teach according to the teaching period assigned by the school, as suggested by the ministry, but sometimes it is quite difficult because of unsuitable timing. For example, I teach Mathematics usually at noon. Usually, teachers and students will rest at that time. I follow the time when students feel it is suitable. The students, they enjoy learning at night and sometimes I will hold my classes at night, but still following the ministry, two hours per teaching and learning session, and two meetings per week...." (Teacher A).

It was found that the teachers perceive that the needs of using applications in home-based teaching and learning and maximizing the use of the application designed by MOE which was DELIMa. Ahmad et al., (2020); Mirau, (2017) stated that online learning could be done by using various applications such as Microsoft, PowerPoint, Microsoft PowerPoint recording, YouTube, PowToon, Prezi, WeVideo, Sound Cloud, Google Slides, SlideShare, Google Drive, Dropbox, Screencast-O-Matic, Video Scribe, Edmodo, Google Classroom, Facebook, WhatsApp, Instagram, Twitter, Pinterest, and Flickr. With abundance of technology that could produce a variety of learning applications in the virtual world, teachers should improve their skills in choosing the applications that suit the topics by also considering students' skills and accessibility to the materials prepared using the applications mentioned. This is because different models of online learning have considered which pedagogical approaches and technologies are most suitable for children's learning needs (Hu et al., 2021). Teachers must be wise in

choosing suitable methods that are appropriate to the teaching context as well as students' background so that the learning objectives can be successfully achieved.

Although the implementation of home-based teaching and learning is seen as challenging, the findings also showed that there were teachers who diversified the methods and medium used in teaching and learning sessions by proactively creating a reminder system, acting early by giving out modules to students before schools were closed, and preparing themselves, early and well by buying devices and creating a mini studio for their own comfort.

Besides, smartphone applications such as WhatsApp and Short Message Service (SMS) are some of the examples on how technology can be used (Verdes et al., 2021). In addition, the use of video conferencing platforms nowadays can offer learning opportunities with fewer time or location constraints (Mirau, 2017; Mitchell, 2020; Jantjies et al., 2018). Despite the gazetted MCO, teachers and students could still interact with each other. According to Muniroh Hamat at al., (2020) teachers can use their creativity to interact with students even from a distance, as long as the teaching and learning process can be implemented successfully. Meanwhile, according to Goliong et al., (2020), MOE had provided links to Google Classroom and Microsoft Team to facilitate teachers in implementing online teaching. Through the links, teachers can easily gain access to digital textbooks, various PdP videos (Eduweb, CikgooTube), and interactive learning links like Edpuzzle, Quizziz, and Kahoot.

4.1 Discussions

4.1.1 Effective communication

Despite the advancement of IT and benefits of distance learning methods, the question of teachers' readiness, teachers' knowledge in IT, and the supports to successfully carry out their lessons remain the same. Clear instructions should be given from time to time by the authoritative parties. In school context, all information received from the ministry and departments needs to be delivered to the teachers to ensure that they are clear on what needs to be done. All information needs to be disseminated from time to time. For instance, information such as when schools are going to reopen, assignments, tests, quizzes, how to deal with technological problems, and how to log in to applications or email must be given to teachers. Social media such as community-wide texting, email, and school websites can be used as a medium of communication. At the same time, effective communication between the ministry, school, and teachers is also needed to ensure teachers' teaching sessions run smoothly and the children can participate in class effectively (Borup et al., 2020; Taylor & Boyer, 2020).

Undeniably, parental support is necessary for students to learn successfully in the system of online learning (Hu, et al, 2021; Barr, 2013). There needs to be space for any problems or suggestions for a two-way communication to happen successfully. Having said that, teachers and school administrators always need to communicate, whether to obtain the latest information, sharing ideas for teaching sessions, or in getting opinions regarding teaching activities planned (Chen, 2010).

As Hung et al. (2010), Omodan and Ige (2021) stated that timid students are more interested in online settings than conventional settings. In web-based learning, teachers need to create opportunities for interaction and communication between students and teachers. Likewise, active students can make full use of the online forum, which may offer more opportunities that involve students and teachers together in in-depth dialogues and questions. Asking questions is the best way to delve deeper into the topics and to understand the topics more easily. Moreover, students need to take this opportunity to collaborate with other students online, to prevent losing focus and interest while studying online as well as to keep being motivated. Competence and communication skills in online learning are the important aspects to overcome the limitations of online communication. In this pandemic, effective communication is necessary to ensure that all the information is clear and up to date, and various applications such as WhatsApp, Telegram, Instagram, and Twitter are fully utilized.

4.1.2 Training

With the new norms, there is a need for teachers to prepare themselves with new knowledge, not only technological knowledge but also in terms of preparing materials and producing interesting and quality teaching materials. Therefore, undergoing a professional development training which includes the elements of appropriate technology, the use of the necessary technological teaching tools, and a shift in pedagogy is a big order to respond to in a short period of time to create a deep learning experience for their students. Bernama (2021) stated that relevant training can be introduced to teachers to expose them to PdPR methods and processes. The training needs to be done online or in face-to-face meetings but by adhering to the strict standard operation procedure (SOP), to

equip teachers so that they can teach in front of the computer screen confidently and effectively. Similarly, intensive retraining for teachers who are involved in teaching Mathematics and Science subjects in English (PPSMI), English language, and vocational streams need to be done promptly and periodically. MOE also needs to improve and strengthen skills development courses for teachers, especially when the school environment returns to normal. Each and every party needs to be aware that the effects of PdPR will not be the same as teaching and learning in the classroom because PdPR is a medium used to support the process of face-to-face learning that could not be conducted due to COVID-19.

4.1.3 Collaboration

In the effort to add on to the diversity of teaching and finding new methods, the concept of PLC needs to be improved. This is because, through collaboration, teachers can exchange opinions and knowledge to find new ideas in finding the suitable approach for their students (Dorneich et al., 2021; Rönnerman et al., 2015). Through the collaborations, teachers can plan lessons together with students on the activities or applications that can attract students' interest and participation in online classes such as brainstorming activities, rocket writing, additional note, group work, and gallery walk. Interaction, as well as communication between fellow teachers, will be able to solve some problems in teaching students (Kemmis et al., 2014) and help them deal with the latest issues in the context of online learning in this new norm.

In addition, parents need to collaborate with teachers by working together with their children in direct learning activities which can also help to improve the bond between parents and their children as they spend more time together. Situations like this allow parents to be the source of comfort in relieving students' anxiety by conversing with their children to help calm them down. It is suggested for parents to provide emotional supports when their children are in emotional instability (Bhamani. et al, 2020). In the context of new norm learning where there is no face-to-face social interaction, collaboration between teachers and parents should take place in monitoring children's emotional stability.

4.1.4 Creativity

One of the aspects that need to be considered by educators is the students' motivation to learn. Creativity and teachers' ability to maximize the potential of IT should be accentuated because the use of these technologies has resulted in increased engagement, enjoyment, and motivation of students, which may also improve learning outcomes. The ease of use and the pedagogical benefits provided by these emerging technologies make them tools with great potential in education (Verdes et al., 2021). From one perspective, online learning can attract students' interest with the presence of many visual colors, videos, and audios, but they will not necessarily stay motivated to participate in the class. This is because learning in solitary, with no face-to-face interaction with fellow friends and teachers can create a sense of loneliness. It is also hard for students to ask questions directly when they encounter problems in understanding a certain topic (Bertin et al., 2012). Quality teaching should be continuously improved, and teachers must strive to provide the best through online teaching and learning sessions, and lessons should be designed creatively, interactively, relevant, student-centered, and group based (Partlow & Gibbs, 2003). Therefore, teachers' creativity in online teaching is an effort that should be made. Though the use of IT may look interactive, there still needs to be a platform for direct question and answer session if students ever encounter difficulties in understanding the topics studied.

4.1.5 Feedback and students' development follow up

Having such an attitude toward home-based teaching and learning might promote mental and physical well-being (Anderson 2020). Teachers also need to check on students regularly, especially those who are less skillful with digital tools (Snelling and Fingal 2020). Checking on feelings of worry or anxiety can have a profound effect on success. During stressful times, heart and passion may be more important than the content needing to be covered. It is also important to note that perfection should not be expected. Instead, teachers should ask students about their academic progress and incorporate their feedback. Some useful strategies include using recordings and reassuring students by phone (Tate 2020). Effective learning can be seen through positive feedback given by students. Questions from students are also a form of feedback on a certain learning session or knowledge that they would want to inquire. Indirectly, it also shows that students are interested in learning. This is in line with Keeton's (2004) study which stated that educators must spend a lot of time in creating effective strategies to deliver online teaching because effective online teaching delivery will facilitate feedback from students, make students ask questions, and expand students' knowledge on that course.

5. CONCLUSION

In conclusion, home-based teaching and learning is a new norm that is applied to ensure the continuity of the learning process. Teachers especially, play a big role in ensuring its successful implementation. Clear instructions from responsible parties as well as teachers' understanding on the implementation of home-based teaching and learning can ensure a smooth and an effective process of online teaching and learning. Teaching sessions also need to be done with various methods in which teachers need to have good knowledge on IT to make the online teaching and learning session interesting. All parties need to work together to ensure the new norm of home-based teaching and learning session can be implemented successfully.

REFERENCES

- Adedoyin, O. B., & Emrah Soykan. (2020). Covid-19 pandemic and online learning: The challenges and opportunities. *Interactive Learning Environments*. 1-13. https://doi.org/10.1080/10494820.2020.18131.
- Ahmad, N., Norazah Umar, Kadar, R., & Othman, J. (2020). Factors Affecting Students' Acceptance of e-Learning System in Higher Education. *Journal of Computing Research and Innovation*, 5(2), 54-65. https://ir.uitm.edu.my/id/eprint/43516.
- Anderson, L. (2020). Smiles are infectious': What a school principal in China learned from going remote. EdSurge. Retrieved from https://www.edsurge.com/news/2020-03-20-smiles-areinfectious-what-a-school-principal-in-china-learned-fromgoing-remote.
- Azlan, C. A., Wong, J. H. D., Tan, L. K., Huri, M. S. N. A., Ung, N. M., Pallath, V., ... & Ng, K. H. (2020). Teaching and learning of postgraduate medical physics using Internet-based e-learning during the COVID-19 pandemic—A case study from Malaysia. *Physica Medica*, 80, 10-16. https://doi.org/10.1016/j.ejmp.2020.10.002.
- Barr, R. (2013). Memory constraints on infant learning from picture books, television, and touchscreens. Child Development Perspectives, 7(4), 205-210. https://doi.org/10.1111/cdep.12041.
- Bernama. (2021, January 26). PdPR: Give teachers space, increase relevant training. Retrieved from https://themalaysianreserve.com/2021/01/26/pdpr-give-teachers-space-increase-relevant-training/
- Bertin, J.-C., & Narcy-Combes, J.-P. (2012). Tutoring at a distance. *Computer Assisted Language Learning*. 25, 105-109. https://doi:10.1080/09588221.2011.649087.
- Betul Ozaydın Ozkara & Hasan Cakir (2018) Participation in online courses from the students' perspective, Interactive Learning Environments, 26:7, 924-942. https://doi.org/10.1080/10494820.2017.1421562.
- Bhamani, S., Makhdoom, A. Z., Bharuchi, V., Ali, N., Kaleem, S., & Ahmed, D. (2020). Home Learning in Times of COVID: Experiences of Parents. Journal of Education and Educational Development. 7(1), 9-26. http://jmsnew.iobmresearch.com/index.php/joeed/article/view/8
- Boyd, W., Foster, A., Smith, J., & Boyd, W. E. (2014). Feeling good about teaching mathematics: Addressing anxiety amongst pre-service teachers. *CreativeEducation*, 2014.
- Borup, J., Graham, C. R., West, R. E., Archambault, L., & Spring, K. J. (2020). Academic communities of engagement: An expansive lens for examining support structures in blended and online learning. *Educational Technology Research and Development*, 68(2), 807-832. https://doi.org/10.1007/s1142 3-020-09744-x.
- Chen, R. J. (2010). Investigating models for preservice teachers' use of technology to support student-centered learning. *Computers & Education*. 55(1), 32-42. https://doi: 10.1016/j. compedu.2009.11.015.
- Creswell, J. W. (2014). Research Design: Qualitative, Quantitative and Mixed Methods Approaches (4th ed.). Thousand Oaks, CA: Sage.
- Cuenca-Soto, N., Santos-Pastor, M. L., Chiva-Bartoll, O., & Martínez-Muñoz, L. F. (2021). Impact of the COVID-19 Pandemic on the Physical Education Subject: Perceived Limitations and Improvement Proposals. *Qualitative Research in Education*, 260-290. https://doi.org/10.17583/qre.8376.
- Dickson, K., Richardson, M., Kwan, I., MacDowall, W., Burchett, H., Stansfield, C., Brunton, G., Sutcliffe, K., Thomas, J. (2019). Screen-based activities and children and young people's mental health and psychosocial wellbeing: A systematic map of reviews. EPPI-Centre, Social Science Research Unit, UCL Institute of Education, University College London.
- Dorneich, M. C., O'Dwyer, B., Dolowitz, A. R., Styron, J. L., & Grogan, J. (2021). Application exercise design for team-based learning in online courses. *New Directions for Teaching and Learning*, 41-52. https://doi.org/10.1002/tl.20435.
- Feeney, L., Reynolds, PA., Eaton, KA., & Harper, J. (2008). A description of the new technologies used in transforming dental education. Br Dent J. 204, 19-28. https://doi.org/10.1038/bdj.2007.1185.
- Goliong, L., & Kasin, A. Marcelus Johnny & Nazarius G. Yulip. (2020). Cabaran pelaksanaan pengajaran dan pembelajaran jarak jauh semasa Perintah Kawalan Pergerakan.
- Hossain, M. E., Islam, M. S., Ghose, T. K., Jahan, H., Chakrobortty, S., Hossen, M. S., & Ema, N. S. (2021). COVID-19 vaccine acceptability among public university students in Bangladesh: Highlighting knowledge, perceptions, and attitude. *Human vaccines & immunotherapeutics*, 1-10. https://doi.org/10.1080/21645515.2021. 2010426.
- Hu, X., Chiu, M. M., Leung, W. M. V., & Yelland, N. (2021). Technology integration for young children during COVID-19: Towards future online teaching. *British Journal of Educational Technology*. 52, 1513-1537. https://doi.org/10.1111/bjet.13106.
- Hung, M.L., Chou, C., Chen, C.H. & Own, Z.Y. (2010), "Learner readiness for online learning: scale development and student perceptions". Computers and Education, 55(3), 1080-1090. https://doi.org/10.1016/j.compedu.2010.05.004.
- Jantjies, M., Moodley, T., & Maart, R. (2018, December). Experiential learning through virtual and augmented reality in higher education. In Proceedings of the 2018 international conference on education technology management, 42-45. https://doi.org/10.11 45/3300942.3300956.
- Jutaite, R., Janiunaite, B., & Horbacauskiene, J. (2021). The Challenging Aspects of Digital Learning Objects Usage in a Primary School During the Pandemics. *Journal of Educational and Social Research*, 11(5), 201. https://doi.org/10.36941/jesr-2021-0118.

Proceedings of the 5th UUM International Qualitative Research Conference (QRC 2022) 28-30 November 2022, [Online] Webinar

- Karin Rönnerman., Christine Edwards-Groves., & Peter Grootenboer. (2015). Opening up communicative spaces for discussion 'quality practices' in early childhood education through middle leadership, Nordic Journal of Studies in Educational Policy, 2015;3. https://doi: 10.3402/nstep. v1.30098.
- Keeton, M. T. (2004). Best online instructional practices: Report of phase I of an ongoing study. *Journal of Asynchronous Learning Networks*, 8(2), 75-100. https://link.gale.com/apps/doc/A284325485/AONE?u=anon~9edfd4e9&sid=googleScholar&xid=b2dbf09c.
- Kemmis, S., Wilkinson, J., Edwards-Groves, C., Hardy, I., Grootenboer, P., & Bristol, L. (2014). Changing practices, Changing Education. (1st ed), Singapore: Springer
- Kim, K. J., & Bonk C. J. (2006). The future of online teaching and learning in higher education: The survey says. *Educause Quarterly*. 4, 22-30
- Korkmaz, G., & Toraman, C. (2020). Are we ready for the post-COVID-19 educational practice? An investigation into what educators think as to online learning. *International Journal of Technology in Education and Science (IJTES)*. 4(4), 293-309. https://doi.org/10.46328/ijtes.v4i4.110.
- Lahti M., Kontio R, Pitkanen A., & Välimäki M. (2014). Knowledge transfer from an e-learning course to clinical practice. Nurse Educ Today, 34(5), 842-847. https://doi.org/10.1016/j.nedt.2013.09.003.
- Malaysia Ministry of Education (MOE). (2020). Manual Pengajaran dan Pembelajaran Di Rumah Versi 2. Retrieved from https://www.moe.gov.my/pekeliling/4081-manual-pengajaran-dan-pembelajaran-versi-2-2-feb-2021-1/file.
- McVeigh, J., MacLachlan, M., Gilmore, B., McClean, C., Eide, A. H., Mannan, H., McAuliffe, E. (2016). Promoting good policy for leadership and governance of health-related rehabilitation: a realist synthesis. Globalization and health, 12(1), 49. https://doi.org/10.1186/s12992-016-0182-8.
- Mirau, E. (2017). Online learning for early childhood education students. Graduate Projects, University of Victoria: Uvic Libraries. Retrieved from https://dspace.library.uvic.ca//handle/1828/8513.
- Mishra, L., Gupta, T., & Shree, A. (2020). Online teaching-learning in higher education during lockdown period of COVID-19 pandemic. *International Journal of Educational Research Open*, 1, 100012. https://doi.org/10.1016/j.ijedro.2020.100012.
- Mitchell, E. (2020). "Much more than second best": Therapists' experiences of videoconferencing psychotherapy. European Journal for Qualitative Research in Psychotherapy, 10, 121-135. https://www.ejqrp.org/index.php/ejqrp/article/view/111.
- Morgan, H. (2020). Best Practices for Implementing Remote Learning during a Pandemic. Journal of Educational Strategies. 93(3), 135-141. https://doi: 10.1080/00098655.2020.1751480
- Mudaly, R., & Mudaly, V. (2021). Exploring how the national COVID-19 pandemic policy and its application exposed the fault lines of educational inequality. *Journal of Education (University of KwaZulu-Natal)*, (84), 106-124. http://dx.doi.org/10.17159/2520-9868/i84a06.
- Muniroh Hamat, Siti Balqis Mahlan, Ch'ng Pei Eng, (2020, September). Adaptasi Pengajaran Dan Pembelajaran Secara Maya Dalam Kebiasaan Baharu Semasa Pandemik COVID-19, SIG e-Learning@CS eISBN: 978-967-0841-88-5
- Noor, S., Isa, F. Md., & Mazhar, F. F. (2020). Online Teaching Practices During the COVID-19 Pandemic. *International Educational Process Journal*. 9(3), 169-184. https://doi: 10.22521/edupij.2020.93.4.
- Oliveira, G., Grenha Teixeira, J., Torres, A., & Morais, C. (2021). An exploratory study on the emergency remote education experience of higher education students and teachers during the COVID-19 pandemic. *British Journal of Educational Technology*. 52, 1357-1376. https://doi.org/10.1111/bjet.13112.
- Omodan, B. I., & Ige, O. A. (2021). University students' perceptions of curriculum content delivery during COVID-19 new normal in South Africa. *Qualitative Research in Education*, 10(2), 204-227. http://dx.doi.org/10.17583/qre.2021.7446.
- Ozaydın Ozkara, B., & Cakir, H. (2018). Participation in online courses from the students' perspective. *Interactive Learning Environments*, 26(7), 924-942. https://doi.org/10.1080/10494820.2017.1421562.
- Paredes, J. A., Chaseling, M., & Boyd, W. E. (2020). Online learning in a time of COVID disruption? The experiences of principals from New South Wales rural and disadvantaged primary schools. *Education in the North*. https://doi.org/10.26203/9bzg-2w21.
- Partlow, K. M., & Gibbs, W. J. (2003). Indicators of constructivist principles in internet-based courses. *Journal of Computing in Higher Education*, 14(2), 68–97. https://doi.org/10.1007/BF02940939.
- Peter Grootenboer, Christine Edwards-Groves & Karin Rönnerman. (2015). Leading practice development: voices from the middle. *Professional Development in Education*. 41:3, 508-526. https://doi.org/10.1080/19415257.2014.924985.
- Putri, R. S., Purwanto, A., Pramono, R., Asbari, M., Wijayanti, L. M., & Hyun, C. C. (2020). Impact of the COVID-19 pandemic on online home learning: An explorative study of primary schools in Indonesia. *International Journal of Advanced Science and Technology*, 29(5), 4809-4818
- Racheva, V. (2018). Social aspects of synchronous virtual learning environments. AIP Conference Proceeding, 2048, 020032. https://doi.org/10.1063/1.5082050.
- Raymundo, M. D. R. (2020). Fostering creativity through online group projects. *Asian Association of Open Universities Journal*. 15(1), 97-113. https://doi.org/10.1108/AAOUJ-10-2019-0048.
- Rönnerman, K., Edwards-Groves, C., & Grootenboer, P. (2015). Opening up communicative spaces for discussion 'quality practices' in early childhood education through middle leadership. *Nordic Journal of Studies in Educational Policy*, 2015(3), 30098. https://doi.org/10.3402/nstep.v1.30098.
- Schultz, R. B., & DeMers, M. N. (2020). Transitioning from Emergency Remote Learning to Deep Online Learning Experiences in Geography Education. *Journal of Geography*. 119(5), 142-146. https://doi: 10.1080/00221341.2020.1813791.
- Sezer, B. (2016). Faculty of medicine students' attitudes towards electronic learning and their opinion for an example of distance learning application. *Compututers in Human Behavior*. 55, 932-939. https://doi.org/10.1016/j.chb.2015.10.018.
- Singh, V., & Thurman, A. (2019). How many ways can we define online learning? A systematic literature review of definitions of online learning (1988-2018). *American Journal of Distance Education*, 33(4), 289-306. https://doi.org/10.1080/08923647.2019.1663082.
- Snelling, J., & D. Fingal. (2020). 10 strategies for online learning during a coronavirus outbreak. *International Society for Technology in Education*. Retrieved from https://www.iste.org/explore/10-strategies-online-learning-during-coronavirusoutbreak.
- Tate, E. (2020). With weeks of e-learning ahead, be flexible and forget perfection. *EdSurge*. Retrieved from https://www.edsurge.com/news/2020-03-19-with-weeks-of-e-learning-ahead-be-flexible-and-forget-perfection.
- Taylor, M.E., & Boyer, W. (2020). Play-Based Learning: Evidence-Based Research to Improve Children's Learning Experiences in the Kindergarten Classroom. Early Childhood Educ J 48, 127–133. https://doi.org/10.1007/s10643-019-00989-7.

Proceedings of the 5th UUM International Qualitative Research Conference (QRC 2022) 28-30 November 2022, [Online] Webinar

- Tsao, S. F., Chen, H., Tisseverasinghe, T., Yang, Y., Li, L., & Butt, Z. A. (2021). What social media told us in the time of COVID-19: a scoping review. *The Lancet Digital Health*, 3(3), e175-e194. https://doi.org/10.1016/S2589-7500(20)30315-0Get.
- Van der Spoel, I., Noroozi, O., Schuurink, E., & van Ginkel, S. (2020). Teachers' online teaching expectations and experiences during the Covid19-pandemic in the Netherlands. *European journal of teacher education*, 43(4), 623-638. https://doi.org/10.1080/02619768.2020. 1821185
- Verdes, A., Navarro, C., & Álvarez-Campos, P. (2021), Mobile learning applications to improve invertebrate zoology online teaching. Invertebr Biol. 140, 12321. https://doi.org/10.1111/jvb.12321.
- Wang, K., Zhang, L., & Ye, L. (2021). A nationwide survey of online teaching strategies in dental education in China. *J Dent Educ.* 85, 128-134. https://doi.org/10.1002/jdd.12413.
- Wahid, R., Ismail, N., Mat, B., & Saidin, K. (2019). Sustaining innovative informal education through intellectual property. *UUM Journal of Legal Studies*, 10, 79–101. https://doi.org/10.32890/uumjls.10.2.2019.6519
- Weidlich, J., & Kalz, M. (2021). Exploring predictors of instructional resilience during emergency remote teaching in higher education. *Int J Educ Technol High Educ* 18, 43. https://doi:10.1186/s41239-021-00278-7.
- Willging, P. A., & Johnson, S. D. (2004). Factors that influence students decision to drop out of online courses. *Journal of Asynchronous Learning Networks*, 8, 105-118. https://doi.org/10.1186/s41239-021-00278-7.