

# Skills and Challenges in Digital Teaching Post-Covid-19: Malaysian and Indonesia Student Experience

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## Abstract

This study discusses the challenges of virtual learning experienced by students during the Covid-19 pandemic in Malaysia and Indonesia. The objective of this study is to examine the problems and challenges faced by students during the teaching and learning process online. This qualitative study involved document analysis and interviews of 20 students through the WhatsApp video application. Findings of the study show that digital teaching during the outbreak of the Covid-19 pandemics is a significant challenge borne by students. This learning need is in line with the seriousness of the Malaysian and Indonesian Governments in producing an educated generation among students regardless of time and place. Implications, teachers play an important role in determining 21st-century learning outcomes. In addition to challenges such as providing understanding to teachers and students to practice standard operating procedures (SOPs), the assessment process of students and teachers also faces external challenges from parents and society. If in the past 21st-century learning emphasized student-centered learning but now changed to teacher-centered teaching. In addition to challenges such as providing understanding to teachers and students to practice standard operating procedures (SOP), the assessment process of students also faces external challenges from parents and the community. If in the past 21st-century learning emphasized student-centered learning but now changed to teacher-centered teaching.

**Keywords:** Covid-19; digital teaching challenges; online learning

## Introduction

Covid-19 is a new virus that began to become an epidemic in early 2020. It was first considered a dangerous epidemic on March 11, 2020, when the World Health Organization (WHO) began declaring the epidemic still unvaccinated and a newly discovered epidemic. The cooperation of scientists and doctors around the world in tackling and finding a vaccine for this epidemic is beginning to be mobilized from every angle. As a precautionary measure so that the chain of transmission of this epidemic can be stopped, various methods have been introduced by each country.

According to the Malaysian Ministry of Health, Covid-19 is a new virus that has been discovered in Wuhan, China. It is a virus that infects the respiratory tract and can cause severe flu symptoms such as severe acute respiratory syndrome coronavirus (SARS) and Middle East Respiratory syndrome-related coronavirus (MER-CoV). The infection from Covid-19 occurs very quickly and can infect as many as 150 people in a short period. Viral Corona infection can cause a spectrum of symptoms from the common cold to severe pneumonia.

Malaysia is a developing country and is no exception to be infected by this dangerous epidemic. To address this epidemic from continuing to spread and infect Malaysians, various policies and preventive measures have been introduced. The Ministry of Health Malaysia (MOH) has experience in dealing with other similar viruses in this group such as SARS and MERS CoV. In dealing with clusters or outbreaks of SARS and MERS CoV infections, adherence to strict public health principles as well as infection control has enabled the clusters or outbreaks of the disease to be stopped. The MOH is confident that adopting the same principles will be successful in dealing with this cluster of COVID-19 infections.

Malaysia is no exception. The introduction of the Movement Control Order (PKP) began to be implemented on 18 March 2020. From that date, all employment sectors will have to work from home. The education sector also needs to be prepared to work from home as the best method of tackling this pandemic is simply by breaking the chain of this extremely dangerous virus. The National Security Council issued a directive for all Malaysians to work from home. Success in tackling this pandemic from spreading depends on the attitude and discipline of Malaysians. The Ministry of Education Malaysia has issued a directive for all teachers to start working from home online. Among the application options used by teachers in imparting knowledge to their students include Google classroom, Whatsapps, Telegram, Kahoot, Quizzes, Google meet, Zoom, as well as printing resource materials to be distributed to students. Starting from the move the Movement Control Order (PKP) was issued, a new episode began in teacher teaching. If before face -to -face teaching was the best way to give understanding to students, but a teacher can not run away from the currents of change and modernity and follow the current developments happening around them.

According to Wa Ya Shin (2020), there are 1.5 billion students from more than 165 countries who are unable to continue their schooling due to COVID-19. As announced by UNESCO on 26 March 2020. Malaysia is one of the countries that has taken steps to close its schools starting 18 March 2020, when the first Movement Control Order (PKP) was implemented. Various assumptions were born from this first PKP. MOH assumes that by the end of the first PKP date, all sectors in Malaysia will be able to operate as usual. But all those assumptions turned out to be wrong. PKP is continued in the next 3 weeks. Therefore, online learning has been introduced by the Ministry of Education Malaysia to help students not be left behind in their studies.

According to (Bernie Trilling & Fadel, 2009), there are three components of digital literacy skills such as information literacy, media literacy, and ICT literacy. These skills are needed to support 21st-century skills everywhere, including In Indonesia. But, many studies showed that the level of students' digital literacy skills in Indonesia is rather below. Ref (Boeriswati, 2012) found Indonesian students only at level 2 (low) from six-level about information literacy where they used information and communication technologies only to help their daily activities and had a recurrence pattern in its use. Even, in synthesizing the main idea and stating the need for information students are only at the developing level (Irawati, 2009). Also, Ref (Khan & Idris, 2019) found that the information literacy skills of students in Indonesia on the verification information aspect were only 2.99 out of 5 scales.

Not only in the aspect of information literacy, in the aspect of media literacy, the students' skills are also at a low level. They still have difficulties in sorting and selecting the information that they needed and helpful for themselves (Asra & Isman, 2019). This is proven by the fact that students' ability to understand fake news is still very low (Syam & Nurrahmi, 2020). Ref (Suwana & Lily, 2017) found that digital media literacy remains low because of inadequate education, lack of opportunities, and the patriarchal system in Indonesia. Also, they have not been equipped with the ability to critically analyze any information obtained from the media (Soelistyarini et al., 2019).

Another aspect of digital literacy skill is ICT literacy skill. In Indonesia, ICT utilization was still low, as is seen by low Internet penetration and a low Human Development Index (HDI) measure of 0,684, or at a position of 108 out of 187 countries ranked (UNDP, 2011). Ref (Hafifah & Sulisty, 2020) found that 40% of respondents Indonesia students at University still are below level in ICT and frequently use ICT daily. Even, some teachers have a low capacity for using

Information and Communication Technology (ICT) (Muslem et al., 2018). Ref (Latif et al., 2019) Latif et al., (2019) found that the elementary teacher in Indonesia only at one level (lowest level) from six-level. They need to be improved ICT capacity by conducting training regularly (Saripudin et al., 2020).

In Malay, the Ph.D. dissertation about information literacy Ref (MohdSaad, 2008) found that over 80% of the participant from University in Malay, need assistance in searching from the Internet (59.7%), digitized information (67.9%), and electronic databases (73.6%). Another study showed that the level of the information literacy level of the postgraduate student is at Moderate-High (Jalilah Yusof et al., 2019). In the information literacy skill, the ability of Malaysian students is at the basic level, namely the ability to process selected information and critically evaluate information into new knowledge or ideas (Chusniyah et al., 2020).

Media literacy skills in Malay also at a low level. Hassan, Allam, Azni, & Khamis (2016) reported that the use of social media leads to lower levels of integrity among young people. However, In media literacy, some students from secondary school in Malay felt less competent when it came to doing creative tasks using digital tools (Balraj & Yi, 2020). Ref (Karim, 2020) found that there are some problems of accessibility to information and lack of literacy in searching for information through the new media by the college students.

Generally, the Malaysians Students' level of ICT Skill is still very low (Hew & Leong, 2011). From the research conducted, Ref (Baharulldina et al., 2019) found that the lowest ICT literacy skills were possessed by teachers who served more than 30 years. However, other findings showed that the majority of the student teachers highly had a positive attitude toward the use of ICT and may implement ICT (Mirzajani & Bayekolaei, 2020). Based on all these findings, it can be said that the digital literacy skills of the people in Indonesia and Malaysia are still low. Many studies have proven this low level from elementary school to college. Several studies show that teachers also have low digital literacy skills. This study aims to compare digital literacy challenges in Indonesia and Malaysia. The research aims to find causes and solutions that can be used to improve digital learning. The objectives of this study are to:

1. To study the problems and challenges faced by teachers and students when online teaching is conducted.
2. Evaluating the effectiveness of online teaching has a positive effect on students compared to face-to-face teaching with teachers.
3. Investigate the challenges faced by teachers when faced with the Covid-19 pandemic situation to conduct teaching sessions for students.
4. Identify the challenges of implementing new normal teaching and learning

## **METHODOLOGY**

### **Research Design**

This study is a comparative study attempting to compare online learning during pandemic in Indonesia and Malaysia elementary school. A comparative study is a research method whose main idea is to understand and analyze the differences and similarities between phenomena, institutions, or educational systems (Ahmadi & Saghabashi-naeini, 2020). This research design allowed the researcher to compare and understand the skill and challenges of students from two nations.

### **Research Participants**

A total of 21 students had participated in this study through purposive sampling method. In qualitative research, the sampling technique used is quite broadly defined in contrast to quantitative studies, where the sampling method, including sample size, is determined in detail (Moser & Korstjens, 2018). So that in qualitative research the sample size is not too problematic. Purposive sampling is a sampling technique (non-probability) in which the researcher conducts a personal assessment in determining the sample from a population (White et al., 2018). Purposive sampling is

more appropriate to be applied in exploratory studies and provides new knowledge where samples are selected based on predetermined criteria according to the research conducted (Mweshi & Sakyi, 2020). The sampling technique used in this study was divided into two phases. First, the researcher chose one of the schools from both countries. Then, proceed with selecting students from each school. The students involved in this study were those who were willing and agreed to participate in the interview session with the theme: learning during a pandemic. The participants were 11 elementary students from Indonesia and 10 elementary students from Malaysia. There were the students from up level grade 4,5, and 6.

### Data Collection Method

This study was conducted using the interview method by providing instruments directly and according to their own experience on how researchers face the problems of teaching online (Online Learning). Semi-structured interviews can perfectly complement the researcher's observations of events that occur in the classroom (Xerri, 2018). Semi-structured interview is the most suitable data collection method in this study because it requires responses from participants that allow them to broaden their answers and thoughts (Mabe & Potgieter, 2021). Each week, the researcher prepares printed materials as well as teaching and learning materials in the form of quizzes in the form of (Quizlet) Google form (GF) to be answered by students. However, the response from students was less than satisfactory. This study was conducted by conducting video call interviews using the WhatsApp application to primary school students at the researcher's place.

### Data Analysis

Data obtained from semi-structured interviews were analysed by descriptive method using percentage scale. This method is used to describe the data and involves interpretation in the process of study. In addition, it is flexible to use in a variety of epistemological and theoretical frameworks, and to be applied to a variety of study problems, sample sizes, and designs. The data were analysis according to the employment background of respondents' parents, distribution of smartphone usage in a day by an hour in a day, and surfing the internet and using of devices in online learning.

## FINDINGS AND DISCUSSION

There are many challenges faced by teachers during online learning sessions during the Covid 19 pandemic. The researcher used an interview instrument on the respondents to see for themselves the validity of the data analyzed. Questioning skills and question-level are taken into account to get a comprehensive picture. Table 1 shows briefly the background of the study participants, namely students from year 5 and year 6 who have parents who work in the government sector or self - employed.

Table 1: Employment background of respondents' parents

Respondent's profile	Parents work in the government sector		Parents work alone	
	Malaysia	Indonesia	Malaysia	Indonesia
Year 5 student	3	3	2	3
Year 6 students	4	0	1	5

Findings of study question 1: Did you have your smartphone ownership at the time of the Movement Control Order (PKP) recently declared by the government? Table 2 shows the findings of a study to analyze how many students have their smartphones or share with parents. This is intended for the researcher to self-assess the problems that occur during the duration of the PKP. This problem arises when the researchers themselves use online teaching methods and only a few students submit the homework provided.

Table 2: Distribution of smartphone usage in a day by an hour in a day

Bill of respondents by year	Malaysia			Indonesia		
	2 hours	3 hours	5 hours	2 hours	3 hours	5 hours
Year 5	2	3	1	2	3	1
Year 6	1	2	2	3	2	0

The findings of the third interview question to all respondents were answered very carefully and confidently as the researcher will focus on the questions that are the focus and the main question to the topic of the study being studied. The researcher explained to the respondents to provide accurate information based on the current experience (PKP) in dealing with the spread of Covid 19. The following are the items of questions asked to the respondents.

Table 3: Ease of access possessed by respondents during PKP in surfing the internet and the use of devices in online learning (Malaysia).

Respondent	Students have internet access skills	There are internet facilities at home	are access at	Understand the content of the lesson delivered by the teacher	Share the device with other siblings	Have fun with online learning
Res 1	√	√		x	√	x
Res 2	√	√		√	√	x
Res 3	√	√		x	√	x
Res 4	√	x		√	√	x
Res 5	√	x		√	√	√
Res 6	√	√		x	√	x
Res 7	√	x		√	√	√
Res 8	√	x		√	√	x
Res 9	√	x		√	√	x
Res 10	√	x		√	√	x

Table 4: Ease of access possessed by respondents during PKP in surfing the internet and the use of devices in online learning (Indonesia).

Respondent	Students have internet access skills	There are internet facilities at home	are access at	Understand the content of the lesson delivered by the teacher	Share the device with other siblings	Have fun with online learning
Res 1	√	√		x	√	x
Res 2	√	√		√	√	x
Res 3	√	√		√	√	√
Res 4	√	√		x	√	√
Res 5	√	√		√	√	x
Res 6	√	√		√	√	√
Res 7	x	√		√	x	x
Res 8	√	√		√	x	√
Res 9	√	√		x	x	√
Res 10	x	x		√	√	√
Res 11	√	√		√	√	x

The results recorded showed that 8 of the respondents or 80% did not enjoy learning using online learning. All 10 respondents or 100% shared the device with other siblings every time the

teacher gave them an assignment. Only 40% of the respondents have access to the internet from home. This means that the rest of the respondents rely on their parents when accessing the internet. However, all respondents are 100% knowledgeable in accessing the internet. This is one of the successes of the Ministry of Education Malaysia which has introduced the subject of Information and Communication Technology (ICT).

The results showed that 5 out of 11 respondents or 45% of students did not enjoy online learning. There are 72% of students who share devices with siblings when teachers teach online learning. It is also supported where 90% of students do not feel any difficulty regarding the internet network in their place. Even so, about 18% of participants still have difficulty learning online. This can be because they are less skilled in online learning.

This is similar to (Boeriswati, 2012) found Indonesian student only at level 2 (low) from six-level about information literacy where they used information and communication technologies only to help their daily activities and had a recurrence pattern in its use. Even, in synthesizing the main idea and stating the need for information students are only at the developing level (Irawati, 2009). Also, Ref (Khan & Idris, 2019) found that the information literacy skills of students in Indonesia on the verification information aspect were only 2.99 out of 5 scales.

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The results of the Covid-19 post-incarceration study conducted by the National Union of Teaching Professions (NUTP) with 100 education experts in the country involving 10428 education respondents conducted in April to early June found that 93 percent of teachers chose to teach collectively in the classroom compared to other teaching methods.

As a result of the post-Covid-19 social imprisonment pedagogy study, experts have introduced four pedagogical methods of teaching and learning, namely face-to-face, synchronous, asynchronous, and offline (offline) learning. This method can be used as an option for teachers and schools to teach students according to the appropriate topics (subjects). It all depends on the educators to be more creative in diversifying teaching methods.

a. Implementation of online learning

Online teaching has a very broad concept. It is an inclusion including using the applications that are in the programs that are on the computer. Besides, internet access must be extensive so that all the information presented by teachers can be accessed well to enable knowledge to be obtained well.

Muhammad Zulazizi Mohd Nawawi (2020) has placed that Multimedia in Teaching and Learning is a message or communication design that applies the use of advanced technology. Teaching materials can be uploaded in Google Classroom, Zoom, Google Meet, and other applications available on the computer.

As the Covid 19 pandemic begins to spread rapidly, one way to stop it is to practice "social imprisonment" where Malaysians are asked to start adopting a "New Norm" in life. A new transformation began when all government departments started work from home. Teachers are also among the civil servants who use online learning mediums to work. Even so in a situation when the number of victims of this pandemic continues to increase, there are also difficulties for students when accessing the internet.

Through an article written by Wan Ya Shin, (April 18, 2020) stated that Covid 19 has revealed a huge gap in the digital divide that exists among students. To get online learning, a student needs to access the platform. They need high bandwidth networks, devices such as computers or laptops, or smartphones. In urban areas, there are complaints where students share devices with parents causing them to fail and not be able to make full use of the learning conducted online. However, the problems that occur in rural areas are quite different where they experience problems with an internet connection that is relatively slow so that in some villages do not have access to electricity which causes the failure of direct internet reception. Tular on social media how an IPT student who had to climb a tree and spend the night on a tree just to sit for a test conducted online by the University.

b. Lack of preparedness and digital infrastructure

Covid 19 opened our eyes all about the lack of systems and digital readiness. Most developing countries have tried to change the learning process from the classroom to virtual learning (Virtual Learning). However, the intention seems to be a bit vague when there are still teachers who are less skilled in using computer technology and are still busy using the applications available on the computer.

Infrastructure facilities as well as the development of digital-based teaching became one of the reasons why teachers could not fully apply online learning during the Covid 19. Harith Asyraf Haslam (2020), exploring the issue of lack of infrastructure and constraints to access the internet in rural areas. complaints and grievances from teachers. according to a study conducted by Berkshire Media involving 1.78 million data samples on social media, a total of 155,296 data discussed educational issues. This problem does not only involve primary school teachers but also at the highest level, namely IPT students.

*"Parents expressed frustration regarding Home-Based Learning (HBL) due to various issues such as inappropriate systems and technology as well as the time spent to run HBL," the report added.*

Therefore, it is very appropriate if the Ministry of Education Malaysia improves the broadband network infrastructure in rural areas to ensure change and success can be enjoyed by all levels of students.

c. Share devices and smartphones.

Online and digital learning using a variety of methods including Google Classroom, Zoom, Skype Webex, Schoology, Green Screen, Edpuzzle, Videos, an e-learning portal, Microsoft Teams, video editor (Youtube Editor or VivaVideo), online training app, and EduwebTV to be a medium for teachers and instructors in conveying information to students when the Movement Control Order (PKP) takes place. Even so, there are students in rural areas who have to share devices and smartphones to get practice questions and notes uploaded by teachers in their smartphones.

Detailed results conducted in Sabah show that 52% of students in Sabah do not have internet access. The article uploaded via BH online dated 19 July 2020 is a true picture of the challenges that occur among the teaching staff. According to Sabah Director of Education, Dr. Mistirine Radin stated that the lack of facilities makes it very difficult for teachers to implement online learning. Speaking to Bernama reporters, Dr. Mistirine said that 98% of teachers in Sabah were ready to do online as they had facilities such as Wifi, internet data, and

gadgets needed as well as skills to handle the session. At the beginning of the PKP, the State Education Department received complaints from parents because they had to share smartphones for learning.

Face-to-face learning is a process in the classroom as usual, while synchronization is done live through applications such as Google Meet, Zoom, Skype, and video calls. The asynchronous and offline method is the model which is made by video recording as well as giving certain tasks to students without the need for students to attend school. This pedagogical choice will directly help the government control the spread of Covid-19 in the country.

The approach through blended learning can also be done in post-Covid-19. Blended learning is a method of teaching and learning that combines conventional methods that are face-to-face and also using virtual learning online anywhere at any time and can be referred to at any time. It is among the innovations that enable learning to be more interesting and effective (Shahaimi & Khalid, 2015).

An online platform with an e-learning concept can help teachers and students a lot. Therefore, to entertain children at home, teachers need to adapt and implement teaching and learning sessions as usual through various online systems such as Google Classroom, Google Docs, Google Slides, and Google Meet. Even class WhatsApp groups, youtube, and Facebook can also continue to be very significant platforms in creating interaction and learning sessions between teachers and students. But in this case, the challenge for teachers is that teachers need to be proficient in using existing digital platforms and technologies. Teachers, especially senior teachers, need to immediately learn and get used to it so that they can continue teaching and learning activities as usual. Besides, teachers need to be prepared to face students who do not have internet access and have the appropriate devices for virtual learning. For example, according to the Sabah Director of Education, 52 percent of students in Sabah, especially those living in rural areas, do not have internet access and smartphones, laptops, or other mobile devices to continue teaching and learning sessions.

Therefore, in the enthusiasm of teachers to explore e-learning, do not forget the constraints of various facilities and infrastructure that will be faced by teachers. The ministry needs to play a role by providing the necessary infrastructure facilities for this virtual session to continue. To overcome this problem, internet access, for example, there must be drastic measures from the government to improve the facilities and infrastructure needed so that eventually the desire to digitize the national education sector or better known as e-education can be realized.

Tests have been done on the theory of connectivity which is said to be the learning theory of the digital age. It tests the effectiveness of online activities. The cybergoth approach is supposed to increase student motivation, increase longer retention rates and reduce cognitive load. Through a cybergoth approach, synchronous learning, asynchronous and offline learning can occur at any time. Cybergogi offers more than one channel and can be varied according to the needs of students and the willingness of all parties involved. This practice can be applied at the highest level, but it is difficult to do at the primary education level because the motivation of students to learn on their own is still very low and requires comprehensive and guided accompaniment and guidance in learning.

New educational applications are constantly emerging every day, assigning teachers to enhance knowledge in line with the theme of teachers 'day. Among the ways to improve teachers' knowledge such as through teacher graduate programs and encouragement through scholarships for the continuation of knowledge to the master's and doctor of philosophy (Ph.D.) levels are implemented actively and successfully. What is necessary, the teacher only refreshes the momentum of interest in the improvement of knowledge.

During the Covid pandemic, 19 scholars and thinkers have tried to find solutions especially involving changes in terms of teaching and learning. The introduction of online learning has had a major impact on the digitization of the learning system. Among the steps that can be taken are:



- a. Re-evaluation of educational objectives and changes towards beyond examinations.  
Assessment and evaluation of students should be reviewed. Teachers need to assess students learning with the ability to think creatively and creatively is very much needed by young students. The school is no longer chasing the results of excellent students through exams but its morals are idle. Therefore, it is very necessary to emphasize the proliferation of human values and good morals and character to show a parallel with the Philosophy of National Education and the Philosophy of Islamic Education. Traditional methods of learning by rote and supplying knowledge of information because exams will not prepare our students for future jobs. This crisis is an opportunity for us to reflect and make changes to our education system.
- b. Distribution of devices and increase access to online classes  
The distribution of devices to all students to bridge the digital divide can be reduced, many countries have taken measures such as distributing devices so that access to online classrooms is improved. In Finland, several states in China, and the United States students are allowed to borrow digital devices from schools to access online learning platforms. There are also private companies that donate devices to children in need. Increase the number of devices, especially in rural areas such as Sabah and Sarawak so that all students can access the internet well.
- c. Expand access to students through television  
Another way to expand access to digital learning is through television. The use of television to broadcast learning also needs to be further expanded. Based on the 2018 ICT Use and Access by Individuals and Households Survey, households that have access to television is 98.6% and is the highest among other devices. Therefore, coverage to students through television is wider than online platforms. Currently, classes or houses are broadcast in 2 1 -hour slots daily on Okey TV. This broadcast can be further expanded so that more classes can be made available to children of all ages and throughout the day.
- d. Expand digital access to all communities whether in urban or rural areas.  
Almost every house in Malaysia has a television. Television is also one of the easiest digital networks to find. Therefore, the Ministry of Education Malaysia needs to have a special tv slot for learning sessions. Based on a study conducted by the Department of Statistics Malaysia found that 0.3 % of households in rural areas still do not have electricity and depend on using lamps to get light. The government's concern for the plight of rural communities needs to be taken seriously, especially to produce more successful young people in rural areas.

## CONCLUSION

The Covid-19 pandemic opens a new page for all teachers in mind. Teachers must be prepared for any possibility of having to think outside the box in conveying all information to students. Teachers need to be more creative in teaching sessions of new norms. Teachers must also be willing to accept the fact and change that they are the “hope” to society in producing an educated and visionary generation. A human teacher who always starts to step forward to help small human beings who need knowledge.

Whatever the challenges posed by PKP and Covid-19, it will not dampen the fighting spirit of teachers to continue teaching and learning sessions through new normal practices in the national education sector. Educators should take the opportunity to use the latest Industrial Revolution 4.0 manufacturing technology that brings virtual reality such as virtual reality (VR), augmented reality (AR), and 360-degree video that is more immersive, interactive, and provides exposure to knowledge and skills 24 hours a day. Disclosure on the Industrial Revolution 4.0 needs to be done starting from the primary school level. We can see the wisdom behind the Covid-19 educator in the aspect of education which requires the cooperation of all parties in tackling the epidemic and continuing survival. Learning theories and teaching methods are tested to see the effectiveness of the 21st-century education system.

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