Rural Secondary Teachers' Readiness to Teach Online in The Pandemic Era: A case Study

Siti Nabila Che Md Nasir[1], Zainab Alias[2], Siti Fazlieya Jaffar[1], Riyan Hidayat[1*]

[1]Faculty Science and Mathematics, Universiti Pendidikan Sultan Idris,
35900 Tanjong Malim, Perak, Malaysia

[2]Sekolah Menengah Kebangsaan Seri Tualang,
28000 Temerloh, Pahang, Malaysia

nabilanasir6696@gmail.com, fazlieyajaffar@gmail.com, riyanhidayat@fsmt.upsi.edu.my,

zainabaliaszba@gmail.com

Abstract: The advantages of online education and technology learning aids have been widely investigated and documented to improve student-centered learning, academic success, and a flexible learning environment. However, previous study reported that it is still unclear regarding the secondary mathematics teachers' readiness in teaching and learning mathematics during online teaching in the rural context. The objectives of this study were to assess teachers' readiness in terms of their knowledge and attitude in the implementation of online teaching. Four Mathematics teachers in rural secondary schools were chosen via purposive sampling using the qualitative method, which was the interview. A constant comparative data analysis technique was used to examine the teachers' readiness in terms of their knowledge and attitude in the implementation of online teaching. The study findings showed that the teachers had in-depth knowledge of teaching delivery methods and devices such as gadgets. Additionally, the teachers had a positive attitude in terms of their perception and acceptance of online teaching. Teachers who were ready in terms of knowledge and willingness were more likely to achieve the learning objectives.

INTRODUCTION

On 25 January 2020, Malaysia experienced its first Covid case involving three Chinese nationals plagued with the novel coronavirus, which could cause fever, colds, coughs and eventually, deaths. The virus is known as Covid-19 and is detrimental to human health. It can spread via droplets containing the virus through coughing or sneezing. According to Rohayati et al. (2020), the Covid-19 pandemic has caused problems to the nation's socio-economy as the virus harms the health of humans. Malaysia recorded 190 Covid-19 cases on 15 March 2020 and 125 patients on 16 March

2020 (Salim et al., 2020). On 16 March 2020, the Malaysian Prime Minister announced that the government had decided to implement the Movement Controlled Order on 18 March 2020. Some of the activities prohibited during the MCO all over Malaysia were opening universities, schools, and places of worship. This was implemented to control the spread of the Covid 19 virus. The main message disseminated during the MCO was for people to stay at home, practise social distancing and personal hygiene (Kementerian Kesihatan Malaysia, 2020). According to the World Health Organization, these orders played a major role in controlling the spread of the Covid-19 pandemic. One of the actions which has been taken is that the communities should he world community to practise social distancing to control the virus from spreading. The online teaching and learning processes are a proactive action taken by educational institutions to curb the spread. Teachers are also mentally and physically prepared to face this new normal environment. The Malaysian Ministry of Education suggested that all schools implement the online teaching and learning process to ensure that students will not be left behind in their studies. The applications that could be utilised are *Google Meet, Webex, Telegram, Whatsapp* and *email*, requiring smartphones and good internet access. With the variety of applications available, all students should be able to follow the teaching and learning online. Those in charge must ensure that each student has at least one smartphone for learning purposes. The preparation of these student facilities needs to be taken into consideration so that the students will not bel left behind.

It is even more difficult when rural schools do not have good internet access or no internet access. Perman (2021) found that the challenge for rural schools is to get internet and communication access. Although the school has a Wi-Fi connection, the coverage is limited as the school and its surroundings had very poor phone signals, preventing teachers from getting information and communication for either education-related or personal usage. As a result, teachers had to go out of the school during their free time, weekends, or even climb up a hill just to get a good connection to get internet coverage to teach or for personal usage. The challenge of getting the internet also impacted the student's ability to see the world from their locality. This may cause students to be left out in their studies as they cannot attend the class. Teachers are also not excluded from the difficulty in implementing teaching and learning online with the students as the former may also have limited technical knowledge and skills. For example, Andarwulan et al. (2021) found that the learning content was less accessible to 50% of instructors, inadequate technology tools were used by 24% of instructors, 67.6% were less adept in putting technology into practice and 40.4 % of instructors said they had difficulty locating internet signals. Bdair (2021) suggested that inadequacy, academic integrity, learning environment, and family stress were the themes of the problems using online learning and technology learning aids. Again, the levels of course design competences, communication skills, and time management abilities among instructors, according to Paliwal and Singh (2021), are insufficient. Therefore, they may also feel stressed when implementing online education. This is also adding to the mathematics teachers' stress when the students' families are categorised as low-income families who cannot provide devices for their children's usage at rural schools. As such, mathematics teachers should take the initiative to assist the students not to be left out in their studies.

Some studies have explored teachers' readiness during online learning (Hosny et al., 2021; Paliwal & Singh, 2021; Suryanti et al., 2021; Ventayen, 2018). However, only a few studies have

documented the mathematics teachers' readiness in teaching and learning mathematics during online. It is also still unclear regarding the secondary mathematics teachers' readiness in teaching and learning mathematics during online teaching in rural context. Therefore, in the present work, we investigate the mathematics teachers' readiness to implement online teaching in terms of their knowledge and attitude in rural context. In this setting, the teachers had implemented mathematics teaching and learning using Google Meet, taught by mathematics software.

Research questions

There are two research questions in this study:
1. What is the mathematics teachers' readiness in teaching and learning mathematics during online learning in terms of their knowledge?
2. What is the mathematics teachers' readiness in teaching and learning mathematics during online learning in terms of their attitude?

LITERATURE REVIEW

In recent years, the benefits of online learning and technology learning aids have been thoroughly researched and documented; for example, to increase a student-centered learning environment, academic performances, and a flexible learning environment (Bdair, 2021). However, online learning requires devices that require good knowledge and attitude from the users. The dissemination of knowledge involves delivery methods and skills, such as how the teacher imparts the learning objectives and the teachers' skills in using the device to make the teaching and learning process more attractive. Additionally, the teachers should also be ready with their attitude, which involves their awareness, perception, and acceptance about online learning in rural schools.

Teacher readiness in implementing online learning from the knowledge aspect

Researchers had conducted a few studies to assess teachers' knowledge on teaching and learning during the Covid 19 Pandemic. Using purposive sampling, Roslin and Salleh (2021) utilised a questionnaire for a descriptive study involving 88 special education teachers in Johor Bahru in 2021. The findings showed that the teachers' mobile learning usage *(M-Learning)* was at a high level. This indicated that the teachers knew how to use mobile phones and tablets to teach and learn. A qualitative study by Subri, Yaakub and Nudin (2021) utilised the qualitative method via in-depth interviews. Three respondents who were master teachers took part in this study. The findings showed that the teachers had extensive knowledge in terms of delivery and skills. Some teachers conducted problem-based learning activities online based on 21st-century learning. The results showed that the teachers were skilled in using Google Classroom, mobile phones, the internet and Whatsapp groups.

On the other hand, a study by Saidin and Husnin (2021) on *Google Classroom* as a mobile learning platform showed that the rural secondary school teachers' knowledge of mobile learning was low. The study involved 262 secondary school teachers in Kudat using the quantitative method via the questionnaire. The findings showed that the rural secondary school teachers' readiness towards mobile learning was at a high level, but the teachers' knowledge of mobile learning was

low. This indicated that the teachers had insufficient understanding of mobile learning based on their reading related to the Google Classroom application in teaching and learning. On the other hand, the teachers were ready to use mobile learning during the online teaching process. Additionally, the teachers' intention to use the technology in teaching online and their involvement in it was quite high (Rahayu & Wirza, 2020). They also thought that they should develop their digital skills. This proved that teachers had recognized the importance of technology in their teaching activities.

Teachers' readiness in implementing online learning from the attitude aspect

Rasmitadila et al. (2020) stated that teachers were able to plan effective teaching and learning sessions using various methods to provide learning materials to students by considering the students' family backgrounds. Another study by Nambiar (2020) discovered that teachers' perceptions indicated that online learning was more suitable due to the comfort of the home environment and timesaving. Still, it was less effective compared to face-to-face learning. This was because there was a lack of interaction between teachers and students. There was no direct interaction with the students. In addition, there were technical issues that could hinder the students' teaching and learning process.

Moreover, the teachers' acceptance of teaching and learning was not very encouraging as they faced difficulty monitoring the students in the classroom. This was supported by a study by Arifah and Iis (2021), who found that one of the effects of online teaching was that teachers could not monitor students' development properly. Some students did not get assistance from parents in teaching and learning. The teachers were also unsure whether the students could understand the topic, which caused the teachers to be less enthusiastic about online education. The teachers need to control their emotions when the students do not give their full cooperation during the teaching session. However, the study by Rahayu and Wirza (2020) indicated that teachers showed a positive perception of the usefulness and ease of use of the online system during the Covid-19 pandemic despite the less effective method of the online learning system due the lack of communication and interaction quality between teachers and students.

METHODOLOGY

This study utilised the qualitative method with interviews and a case study. According to Yin (2003), the case study is suitable for researchers to understand something in depth. The case study also provides a clear picture related to online teaching and learning in rural schools. We investigated mathematics teaching and learning via online learning using Google Meet. We explored how students reacted when they studied in Google Meet, taught by mathematics software. Some students mentioned that they could not understand what they were learning via online learning. This was because studying online can be difficult when the teacher did not maximize using application in teaching with students. Sometimes, students can focus, and some students could not focus. Many factors influenced the focus of students such as the internet stability, knowledge in using laptop or smartphone or readiness in teaching and learning. After the researcher explores the students' readiness in online learning, then he would the explore

mathematics teacher readiness in the rural areas as it would be more challenging to teach and learn via online learning in these areas.

The sample chosen was based on purposive sampling. According to Merriam (2009), purposive sampling is suitable for researchers who want to explore, discover, and understand. Four respondents were chosen based on specific characteristics such as being a Maths teacher, now teaching in rural schools, having teaching experience of more than ten years, and having knowledge related to online teaching. The priority in a qualitative study is the quality of respondents and not the quantity. The interview protocol was developed consisting of two constructs: the teachers' readiness in implementing online teaching in terms of their knowledge and attitude. A semi-structured interview was utilised based on the guidelines of questions prepared. This technique was developed following the flow of information presented without deviating from the objectives of the study. The use of interview protocols to obtain data allowed the researcher to make triangulation to strengthen the validity of the study findings. A constant comparative data analysis technique was used to examine the teachers' readiness in terms of their knowledge and attitude in the implementation of online teaching (Glaser & Strauss, 1967). It entailed the process of coding, categorizing, and creating themes from the data that emerged, to better represent the phenomena under investigation. The peer review method was used to assess the themes discovered during the analysis of data.

FINDINGS

Teacher readiness in implementing online learning from the knowledge aspect

The analysis from the findings found two themes of teacher readiness in implementing online learning: the teachers' delivery method and their information technology and communication skills. The four respondents gave their views regarding their knowledge of delivery methods and information technology skills.

Table 1: The frequency of themes for teacher readiness from the knowledge aspect

Teacher readiness themes from the knowledge aspect	Sub-themes	Study respondents				Frequency
		R1	R2	R3	R4	
Delivery method	Teaching equipment	/	x	/	x	2
	Platform /application utilized	/	/	x	/	3
Information technology and communication skills	Teachers' inherent skills	/	/	/	/	4
	Early exposure to teachers	x	x	x	/	1

Teachers' delivery method

Table 1 shows the themes, sub-themes, and frequency for teacher readiness in implementing online learning from the knowledge aspect. R1 and R3 stated the equipment utilised in online teaching.

R1 used the tablet as a device to enable learning. As for R3, she operated the smartphone and laptop as teaching tools.

"Haha. Just used the tablet" (R1)

"For technology usage, I used the handphone. Assisted with the laptop." (R3)

"Assisted with the laptop. So, if I need to explain, the worksheet should be made using the laptop. Quite hard with a handphone. So, with the class, I just used the usual handphone." (R3)

Table 1 also shows the types of platforms or applications utilised by R1, R2 and R4 in their teaching. R1 used the PowerPoint slides as teaching materials and   *Google Meet* as a teaching platform.

"So, we only explain what is on the slide or anything which we call the ABM. Sometimes we use the Google meet. This means that we need to prepare the google form, prepare the slide, provide the notes, and then use the Google meet by setting it online. Then we do the homework." (R1)

As for R2, she used email as a medium to collect the homework to ensure that students had submitted their assignments as the Telegram application could be overloaded with information.

"I did ask one student to send by email. If it is sent through telegram, it can be quite messy. So, I asked them to prepare it in PowerPoint and send it through the email." (R2)

As stated by R4, the platform chosen by the teacher should be in line with the internet access in an area. The respondent also informed that in rural areas, the Telegram and WhatsApp applications were preferred.

"There are many platforms we can use for online learning…some use google meet, WebEx, according to the internet access in that area. Some use the telegram and WhatsApp applications. That's my view." (R4)

Information technology and communication skills

The skills mentioned above are essential elements in teacher readiness for implementing online teaching. However, not all teachers had the same knowledge level. Nonetheless, the respondents said the information technology skills and communication skills that they had.

"Hmmm. not a lot. Just the basic ones…not good in doing google live. The basic one is a telegram." (R1)

"Yes, like we have done google meet. Which means we know that thing. In terms of content though, we know it is new, we have some basic…" (R2)

R3 had the skills of using *Google Meet*, but the internet access in the rural area could be unsatisfactory. As for R4, she only used *Telegram* and *Whatapps* due to the internet access experienced in the rural area.

> *"So, I just use Google Meet for full guidance. If I use IT, it is ok, but the line can be slow."*(R3)

> *"Only used the telegram and WhatsApp applications. That is just my view. "* (R4)

Schools in rural areas made early preparations to equip teachers with information technology and communication skills. Based on R4, the school authorities played a proactive role by giving training and courses related to technology usage in teaching and learning.

> *"For my school, the administrators played their role and teachers were ready from the start, with the training and courses to use technology in PDP …"* (R4)

Teacher readiness in implementing online teaching from the aspect of attitude

The interview analysis showed that there were three themes of teacher readiness in implementing online teaching from the aspect of attitudes, such as teacher attentiveness, teachers' perception, and teachers' acceptance. Table 2 shows the data from the interview from the rural maths schoolteachers regarding teacher readiness in implementing online learning from the aspect of teachers' attitude.

Table 2: Frequency of teacher readiness themes from the attitude aspect

Teacher readiness themes from the attitude aspect	Sub-themes	Respondents				Frequency
		R1	R2	R3	R4	
Teachers' attentiveness	Teacher's initiative in handling challenge	x	/	/	/	3
	Caring attitude	x	x	/	/	2
Teachers' perception	Teachers' perception of online learning	/	/	/	/	4
Teachers' acceptance	The way teachers control their emotions	/	x	/	/	3
	Teacher's spirit in implementing teaching online	/	x	x	/	2

Teachers' attentive attitude

Two sub-themes could be found in the theme of teachers' attentive attitude, which was the teachers' initiative in handling problems in online teaching and the teachers' way of taking care of the issues which arose during online education. R2, R3 and R4 stated the steps they took to overcome the

existing problems; based on previous experience, R2 planned the time well for teaching and tutorial sessions.

> " For f2/3, we already have the experience. For f1, we haven't used Google Meet, so there is a new thing for them. So, this is more towards WhatsApp. So, one class session is 1 hour and a half. One hour of normal class/exercise. WhatsApp and Telegram. ½ hour of the tutorial. So, we use Google Meet for full guidance." (R2)

R3 also made early preparation for teaching materials.

> " So, some classes already have the modules, the riso, just give them to the students. If there is enough time for PDP, I will collect them back later. But if it continues, we will riso the materials, put them at the guard post and ask the students to get them there." (R3)

R4 was committed to the assignments given to the students and always ensured that students involved themselves in class. She also made sure that the students did not miss any materials or information in the teaching of maths online as conducted.

> "But for students who could not join, like always, I will revise in WhatsApp or telegram group. Usually, we do google meet in class, and we will record the video and send it using telegram or WhatsApp. So that students who could not join can watch the video." (R4)

In the theme of teacher attentiveness, the teacher's attitude indicated that the teacher cared about the students. The analysis of findings showed that R3 and R4 made checks on students who could not attend the classes.

> " The student's behaviour, like if he did not enter the class, we would ask about his/her problem." (R3)

> "So, if we see that some students could not join or did not appear in class, we can contact the parents, ask about their situation. Teachers should also check on the attendance, contact the parents to know about their children." (R4)

Teacher perceptions

R1, R2 and R3 stated their views regarding online teaching. R1 faced problems in handling household matters and her tasks as a teacher.

> "For me, this paper is a struggle. We need to manage our homes. We need to manage our kids. So, it's quite a struggle compared to teaching at school." (R1)

R2 and R3 informed that there was no satisfaction in teaching online. This is due to the limited number of activities to be conducted, resulting in a limited amount of information.

> "If it is like this, I do not feel delighted if we teach online." (R2)

"Personally speaking, I do not feel satisfied teaching online, cannot fulfil the objectives targeted at the students, not satisfied. If it is done face-to-face, then there is more satisfaction." (R3).

Teacher acceptance

The following findings for the theme of teacher acceptance can be divided into two subthemes which are the way the teachers control their emotions and the teachers' enthusiasm in teaching online. R1, R3 and R4 managed their feelings well during the online teaching. According to them, scolding the students for not taking part in classes was not a good option, and it could be detrimental to the teachers' well-being. Some of the answers given by R1, R3 and R4 are as the following:

"So, we have to be accepting and patient. We move on to students who are more active to answer." (R1)

" For those who did not enter the classroom, I am not angry but just disappointed, and it's like no commitment to enter the class. Just pm, ask why they did not enter, they did not do their work." (R3)

"Ok, if we mention emotions, that can test our patience. Especially if there are a lot of students. So, we have to be positive." (R4).

R1 was not very enthusiastic about conducting online teaching. This was different to R4, who showed enthusiasm in implementing online education.

"Till now, I do not have much enthusiasm." (R1)

"If I have the enthusiasm to teach, I will be excited to teach them. For the online teaching, I look for the missing students from the online group, then I will look for them in the WhatsApp group." (R4)

DISCUSSION

Teacher readiness in implementing online teaching from the knowledge aspect

Based on the findings, it could be seen that the respondents utilised a few delivery methods such as teaching aids, teaching mediums and applications. The results are in line with the study by Roslin and Salleh (2021). They stated that M-learning usage could be considered as a medium to add a variety of activities and to acquire vast knowledge and attractive materials. In this study, the respondents stated that using devices such as *tablet*s, smartphones, and laptops could assist in disseminating knowledge to the students. The usage of the latest technology applications like *WhatsApp, Telegram,* and *Google Meet* could help teachers learn about learning. The findings are supported by a study conducted by Subri et al. (2021) which stated that teachers should not ignore the usage of teaching aids. The study also noted that the usage of teaching aids and a variety of

mediums, as stated by the respondent, are essential for strengthening the knowledge mastery and attracting the students' attention to involve themselves in online teaching and learning. This is supported by Yamirudeng and Osman (2019), they stated that various materials such as media, visuals, and texts could be utilised to attract the students' attention and make the teaching environment more lively and cheerful. The mentioned study supported the findings as the respondents had used PowerPoint slides, notes and modules for more effective teaching and learning.

Information technology and communication skills

Based on the findings, the respondents informed that they had the basic knowledge of technology usage and made early preparations to face teaching and learning during this pandemic era. This is in line with the study findings gathered by Saidin and Husnin (2021), which stated that the level of teachers' acceptance in rural schools was high, which meant they could accept change in education from conventional teaching using technology. Teachers' knowledge in information technology and communication skills are fundamental to facilitating lesson delivery to the students. According to Hussin et al. (2019), iPad and similar tablets can be considered effective devices in teaching and learning at schools. As such, this is in line with the current study findings in which the respondents showed that they had knowledge of technology even though it was at the primary level. The results are supported by the study findings from Munusamy and Nordin (2021), which informed that teachers had a lot of exposure from various sources. They were always ready to further improve their knowledge in the latest technology to enhance the teaching and learning process further. Additionally, the teachers should also prepare themselves with enough knowledge and skills to ensure that information technology and communication could positively use it. Some schools give training and courses about technology as early preparation for teaching online. Teacher predisposition in online learning will improve their information technology and communication skills with students during the teaching and learning sessions. Knowledge in information technology is important because it will affect the understanding of student during teaching and learning in class. Furthermore, nowadays, information technology and communication skills are priceless because everyone must become experts in these areas.

Teacher readiness in implementing online teaching from the aspect of attitude

The findings showed that teachers were attentive in implementing online teaching. The combination of teachers' initiative and teachers' attitude in caring about the students' situation resulted in the overall achievement of teaching objectives. Based on Rasmitadila et al. (2020), teachers should plan the online learning framework by considering the students' family economic background and their experience and learning needs in implementing the national curriculum. Additionally, the students could become inactive when they look at the smartphone/ laptop screen for long periods of time (Nasir & Hameed, 2021). The preparation of modules, risograph materials and teaching videos assisted in the teaching process. The online learning approach as a medium for disseminating the teaching materials was easy and fast to be implemented, and the teachers were required to use the teaching method effectively. This was in line with the researcher's findings in which the three respondents used a lot of initiatives to make online teaching more effective.

This was because rural schools did not have good internet access. The students were from a low-income family background; as such, the families could not provide devices for the children, and the internet access was terrible. The students' needy situation caused them to refrain from taking part in online learning. This is supported by a study by Halina et al. (2021), which stated that the rural community had internet access and ownership problems, such as gadgets and devices. As such, respondents 3 and 4 showed extra attention in taking care of the students, such as asking the parents about the students' frequent absence in class and informing them about their problems.

Teacher perception

Respondents 1, 2 and 3 gave negative perceptions about online learning. They stated that online teaching harmed them as they did not have enough time for it and family issues. It can be proved by respondent 1's statement that the teachers were hurrying to do their teaching duties and household duties. Respondents 2 and 3 stated that they were not satisfied with online learning compared to face-to-face learning. The findings showed that the respondents were not enthusiastic about online teaching as they did not have enough time to prepare the teaching materials. They were also unsatisfied with the students' involvement as the latter were inactive in class, and the attendance was poor. The researchers' findings were in line with a study by Nambiar (2020) on teachers in Bangalore, India, which showed that 86.9% of the teachers preferred face-to-face rather than online teaching. It is because face-to-face teaching is more effective as the teacher can teach directly to the students. There is less pressure as there are no problems such as unstable internet connection, students not owning gadgets, and the teacher can instantly see the students' focus. However, some studies may not parallel this study's findings, such as the study by Mohammad Ziaul Hoq (2020) in Saudi Arabia found that several male teachers had positive perceptions about online teaching during the pandemic. Their teaching task became more practical, easily updated and timesaving.

Acceptance of teachers

Pandemic situations make teachers more creative in planning and delivering lesson content to students. However, many teachers still feel constrained by using online teaching methods. It causes teachers to feel comfortable with conventional teaching. As currently experienced, the new norms in education have demanded all teachers to be actively involved in implementing online instruction. Rohayani et al. (2015) found that attitude and skills were essential aspects affecting teachers' readiness to teach online. Respondents 1, 3 and 4 attributed the teachers' thoughtful attitude in controlling their emotions when students were not active in online learning. The inactive students who did not answer the teacher's questions did not cooperate and did not focus on the class would disturb the teachers' emotions during the online teaching. Based on the interviews, it could see that the teachers were disappointed about some of the students' passive behaviour. However, the teachers could control their emotions by diverting their focus from the active students. Arifah and Iis (2020) stated that the difficulty in establishing two-way communication between teachers and students made the online teaching process a difficult or impossible implementation.

The relation between readiness, information technology and communication skills, perception and acceptance of teacher will impact student in the output of students such as result and attitude. The variable that conditions teacher responses in readiness is how much is the teacher ready to teach using online learning with students and what are the apps the teacher used in online learning. Furthermore, teacher responses in information technology and communication skill refer to the level of teacher expertise in information technology such as what techniques they use to maximize the technology in rural area. The perception of teacher in online learning refers to the time, satisfaction, and internet connection. Their perception may change depending on areas such as rural or urban areas, how they manage their time and what level they refer as being satisfied. In addition, the acceptance of teacher in online learning can be seen as the conclusion about readiness, information technology and communication skills and perception. Overall, the teacher can undergo online learning with students because they will find their way and use their skills perfectly to manage their students.

In this study, the researcher used an experience teacher as the first level before being interviewed. Teaching mathematics and students learning in mathematics via online learning depends on their number of years in teaching mathematics. Thus, the variable in this study is the teacher should teach in mathematics in the rural areas and has experience of more than 10 years. Teaching mathematics in rural area forces the teacher to do their best in help students perform in their studies. Basically, when the teacher performs well in their teaching, students would be able to learn well and become experts in the subjects. They maximize their superior skills via online learning to perform well in teaching and students become focused in class and learn well during the teaching and learning sessions. This will help them to understand more in some subject whether they are teacher or students.

Conclusion

The KPM suggested that all schools implement the online teaching and learning process to ensure that students will not be left behind in their studies. The applications that could be utilised are *Google Meet, Webex, Telegram, Whatsapp* and *email*, requiring smartphones and good internet access. Therefore, all teachers and students should own devices such as smartphones to implement the teaching session, and the students would attend the class. The study findings in the present study indicate that we can identify teachers' readiness regarding the knowledge aspect from their delivery method and their information technology and communication skills. Online applications such as WhatsApp, telegram, *google meet, google form* and email were utilised to provide notes and assignments. In this study, the respondents had basic knowledge about the applications. However, they also needed the training to increase their knowledge. The teachers were also uninterested in implementing their teaching online compared to face-to-face teaching as they did not have enough time to manage the learning classroom. Therefore, the teachers utilised the module to enable the students to achieve their learning objectives.

Additionally, not all students could buy smartphones, and the teachers used their initiative to leave the learning materials at the school guard post so that the students would not be left behind in their studies. Most of the teachers were also able to control their emotions during the teaching

and learning implementation. The study limitation was that the face-to-face interviews could not be carried out due to the MCO. As such, the interviews were conducted using *Google Meet* and recorded to be analysed. The study implication for the Malaysian Ministry of Education was that the findings could provide some guidelines in planning how to handle the problem of student dropout and to lessen the teachers' stress. This study also provides impact to the school in providing training to increase the teachers' knowledge and giving exposure about controlling one's emotions. A further suggestion for future research is by combining quantitative and qualitative methods whereby observation, interview and surveys be conducted to acquire more accurate findings. One of the limitations of the present research was the small sample size. Other studies are recommended to involve more respondents so that the researcher could get a clearer picture of online teaching.

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