A Case Study: Issues, Challenges and Coping Strategies of Student-Teachers During the COVID-19 Pandemic

Rosinah Binti Mahmood
Open University Malaysia
rosinah_mahmood@oum.edu.my

Eti Fairudz Binti Zainudin
Open University Malaysia
etifairudz@oum.edu.my

Md Rosli Bin Ismail
Open University Malaysia
mdrosli@oum.edu.my

Abdul Aziz Bin Md. Nor
Open University Malaysia
abdulaziz_mdnor@oum.edu.my

Hazidi Bin Abdul Hamid
Open University Malaysia
hazidi@oum.edu.my

Abstract

This study explores the issues, challenges and student-teachers' coping strategies of teaching in a classroom setting during this challenging time of the Covid-19 pandemic in a new instructional setting of online classes that replace the face-to-face classroom interaction. Purposeful sampling was employed in studying 24 student-teachers' reflective journals through content analysis. The findings showed that most student-teachers were positive and able to cope with the issues if enough time were given to them. Based on the themes emerging from the text analysis, class management and class organisation were not the main issue. However, other main issues such as Internet accessibility and full cooperation from the students were more challenging and the actual learning engagement for the receiving end appears to be compromised due to some teachers who were inadequately trained for online instruction.

Keywords: *Practicum, Student-Teachers, Coping Strategies, Issues in Teaching and Learning*

Introduction

Article 26 of the Universal Declaration of Human Rights states that, "Everyone has the right to education." As we move toward realising this declaration, teachers need to be well-trained and qualified to provide quality education to contribute to national progress. The teaching career is considered professionally certified if teachers go through formal practicum training in any accredited teaching institution. A teaching practicum course comprises both theoretical and practical aspects (Qazi *et al.* 2012). A student-teacher or pre-service teacher needs to carry out the teaching practicum as a requirement to complete the practicum course in his/her respective higher education intuition. A teaching practicum provides student-teachers an opportunity to apply educational philosophies, theories, approaches, and strategies into the actual classroom setting. Thus, these practices will give student-teachers hands-on experiences for effective teaching delivery in schools (Johonson *et al.* 2017).

However, due to the COVID-19 pandemic, a new norm of teaching delivery has emerged. Almost all educational institutions have been instructed to close to curb the spread of the disease and its influence in teaching and learning environment is inevitable. This scenario has brought about a sudden shift from the face-to-face classroom to online learning, which has necessitated adjustments by teachers and students (Chandra, 2020). Thus, the subsequent discussion will look at OUM student-teachers' observation in their reflective journals in online learning, the challenges they faced in online learning, and coping strategies used to overcome problems during the pandemic.

Student-Teachers' Practicum at Open University Malaysia (OUM)

The teaching practicum is an important component in teacher training in educational programmes. Other terms used for teaching practicum include practice teaching, field experience, apprenticeship, practical experience, and internship (Gebhard, 2009). The main purpose of the teaching practicum is to allow student-teachers to apply their theoretical knowledge into practice in a real school setting (Rosinah *et al.*, 2019). In addition, student-teachers are supervised by co-teachers at schools and a supervisor from OUM during their practicum. To perform well in the practicum is one of the determinants of the success of an education programme offered by higher education institutions (Haigh *et al.*, 2013).

Schön (1987) believes that teaching practice is an important process in problem-solving in its own right. Based on this idea, practitioners are expected to solve the problems or issues that they face during lessons by applying theories and teaching models that they have learned. Through proper supervision by co-teachers or supervisors, student-teachers can assimilate and accommodate teaching practices and manage problems encountered. Some of the problems faced by student-teachers during the practicum include classroom management, time management, mixed-ability classes, and difficulties in using technology (Köksal, 2019). However, his findings were based on face-to-face student-teachers.

Reflective Journal Practices

The student-teachers' ability to reflect is very important for their teaching development. Student-teachers can reflect and build on this skill so that they can discuss and share their teaching experiences (Freeman, 2011). Thus, through a reflective process, student-teachers can identify problems concerning teaching techniques and approaches as well as accept their responsibility in teaching and learning. Shulman (1991) termed reflection in education as, "reviewing, reconstructing, re-enacting, and critically analyzing one's own and the class' performance, and grounding explanations in evidence" (p. 15). Post-practicum teachers increase their awareness of teaching and learning through reflective practices to understand the phenomena observed and make decisions based on their experiences (Rodgers, 2002).

Research has shown that reflective practices improve teaching through reflective thought (Risko *et al.*, 2002). As indicated by Habib (2017), possible advantages of reflective practices include the following: (i) it changes the way we do our work for the better, (ii) it provides opportunity to refocus and continue good practices, (iii) it challenges practices that are taken for granted and provide room for improvement, and (v) it helps to develop emotional intelligence especially when it involves previous feelings as part of reflection. In addition, Chi (2010) suggests the view that reflective practices encourage autonomy in learning and provide means for sharing anxieties concerning classroom experiences. Further, the reflective practice is considered a self-assessment tool to evaluate educational philosophy and teaching approach (Hume, 2009).

Interestingly, Sileo *et al.* (1998) have identified several types of journal writing. These include: (i) diary entries: reflecting on sharing experiences, methods used, values, assumptions, and belief systems; (ii) notebook entries: reflecting on course content; (iii) dialogue entries: reflection on how to communicate thinking with facilitator; (iv) integrate entries: reflecting on generating knowledge to support or contradict ideas; and (v) evaluative entries: reflecting on self-assess and analyse thoughts and actions. On the other hand, Lee (2008) classified journal writing into four types of journals that include (i) dialogue journals, which is related to interaction of responses between teacher and student journals; (ii) response journals, which engage students' personal reactions on educational activities; (iii) teaching journals, which engage students' thoughts and reactions on teaching; and (iv) collaborative or interactive journals, which document the interactions between groups of students.

Journal entries may enable teaching staff to maintain an active dialogue with their students (Rodgers, 2002) and provide them with insight into how well practitioners reflect on their experiences (Bean & Stevens, 2002). Furthermore, teachers develop awareness on the relationships between theory and practice, and at the same time systematically reflect on growth and actions within the classroom setting (Taggart & Wilson, 2005).

Reflective journals have been used as a research technique to acquire evidence of learning theories such as constructivism (Lindroth, 2015). Moore's findings (2003) have shown that while pre-service teachers understood the value of the learning educational theory, their focus shifts from theory to issues of time management, classroom management, and lesson planning. Results also reveal missed opportunities for mentor-teachers and university supervisors to create reflective responses to classroom experiences to link theory to practice. Moore stated opportunities to "examine the theoretical constructs behind the pedagogical decisions made by the pre-service teachers were often overlooked in lieu of procedural concerns" (p. 40).

Thus, based on the information given above, it can be concluded that reflective practice has several reasons such as to focus on performance improvement, reflect on learning as it is happening and past experiences, review multiple perspectives on a particular subject or setting, identify alternatives for the best answers, promote learning and self-evaluation, and goal-setting to bring about change.

Online Learning

Embedded in the models of reconstructionism and humanism, online learning is mainly based on connectivism (Jung, 2019) and its attempts to minimise problems to provide equal opportunities for lifelong learners (Gaskell, 2015). E-learning is the use of the Internet beyond the classroom wall and developing materials (Korkmaz & Toraman, 2020). In e-learning, the instructional process, learning engagement, innovativeness and flexibility can be observed. E-learning is coined as the learning experiences in synchronous or asynchronous environments using different tools (e.g., mobile phones, laptops, etc) with Internet access. Student learning can take place ubiquitously (Singh & Thurman, 2019) even though it is with its own limitations.

Early during the pandemic, several institutions began developing portals or online tools that included a variety of resources and teaching strategies meant to help schools make the rapid change from onsite to offsite instruction. Obviously, this change has led to student-teachers having to adapt to online delivery. COVID-19 has led practitioners to find ways to embark on new pedagogical approaches, content delivery, engagement activities, and assessment (Pelletier *et al.*, 2021) showcasing practices teachers in schools.

COVID-19 Challenges and Consequences in Online Learning

The term "quality" as it relates to digital teaching and learning has often been highlighted (Pelletier *et al.*, 2021). The COVID-19 pandemic has served as the focal point to discuss the quality of teaching delivery and this will be a challenge for student-teachers who must make adjustments during this unprecedented time. Online instruction at this time needs to combine quality online digital learning, which is quite well accepted (Al-Kumaim *et al.*, 2021) by practitioners due to the closure of schools. As a result, many schools have gradually changed focus to quality online learning to ensure that delivery is based on a student-centred approach, learning outcomes is achieved, delivery is accessible to learners, and teaching delivery is effective.

Schools provide students with social activities and interactions. If educational activities via online learning is not planned and delivered well during this pandemic, then there is the possibility that students will miss social interaction-based activities necessary to mould them into healthy young adults, especially underprivileged students, who are affected by school closures. This setback should be addressed tactfully if COVID-19 persists and relevant initiatives should be taken to ensure e-learning delivery is carried out effectively. Even though the time frame for school suspension will be short-lived, it may cause psychological distress and depression at various levels (McCarthy, 2020).

With regards to the above scenario, this study explores the issues, challenges, and student-teachers' coping strategies for teaching in a classroom setting during the COVID-19 pandemic via an e-learning setting of online classes through their weekly reflective journals, while also addressing the following research questions:

    i.   What observations do student-teachers make during the practicum based on the format given?

    ii.   What are the challenges faced by in-service preschool teachers teaching online?

    iii.   How do student-teachers overcome the challenges in relation to teaching and learning online?

Method

The key purpose of this study was to explore student-teachers' observations on teaching and learning processes during the practicum, challenges faced while teaching online, and how they overcame the challenges encountered in relation to teaching and learning.

Design

This study employed a qualitative study using content analysis through student-teachers' practicum reflective journals. It focused on phenomenological research designs that investigate the feelings, perceptions, judgments, and beliefs of the participants about their experiences (Patton, 2002). Considering the scope of the study, a qualitative phenomenological research design was employed to gain a more holistic and complete picture of the teaching practicum experienced by prospective student-teachers in Mode 1 (student-teachers with more than one year's experience).

Setting

During the COVID-19 pandemic, teachers were faced with hybrid learning. The introduction of online learning delivery during the Movement Control Order (MCO) in Malaysia was inevitable due to the closure of teaching institutions to curb the spread of the viral infection. Consequently, this unexpected change compelled OUM student-teachers to conduct the practicum through online teaching from their homes. In addition, to complete their teaching practicum, OUM student-teachers were required to prepare an e-portfolio that focuses on three areas, which include school infrastructure, curriculum, teaching and learning and journal reflection. Further, student-teachers were required to perform daily, and weekly reflection stipulated in the HPGD4606 Practicum Guideline used at OUM. Prior to that, practicum student-teachers needed to take eight courses to complete the Postgraduate Diploma in Teaching (PGDT) programme. Upon completing the practicum, students-teachers would graduate and gain recognition as qualified trained teachers from OUM.

Participants

A total of 24 female student-teachers' weekly reflective journals were collected based on convenient sampling. They enrolled in the PGDT programme for the May 2020 – May 2021 academic year. These weekly reflective journals were analysed and measurement for reliability was carried out for theme consistency between the two. All these student-teachers are in Mode 1 practicum, which means they have more than one year of teaching experience in schools. In the phenomenological research design, identifying the most appropriate and accessible participant group is crucial as the focus of the study is the participants' experiences and what they say about them.

Data Collection

Data collected were based on student-teachers' weekly reflective journals. The practicum lasted for four weeks for Mode 1 student-teachers. Student-teachers were briefed on how to write reflective journal through a Google Meet session to help them with the reflective journal in the first concurrent three meetings with their practicum. Student-teachers were given a template and examples on how to write their weekly reflective journal, which can be found in the OUM HPGD4606 Practicum Study Guide. The reflective journal was adapted from Wright & Hughes's (2017) reflective journal guide, which includes: observation, evaluation, short-term and long-term action-based teaching and learning, school, students and co-teachers, and problems faced. Further, they were encouraged to observe the methods they used in teaching, classroom management, school, students, and the co-teachers, as well as the challenges met. Student-teachers completed their reflective journals in the e-portfolio upon after their four weeks' practicum stint in their respective schools was completed and submitted their work via a link provided by OUM. Researchers compiled all the weekly journals and carried out content analysis.

Validity and Reliability

The codes and the themes were re-analysed by the second researcher to provide the "intercoder agreement" suggested by Creswell (2014). After determining the similarities and differences, an agreement was reached, and the validity of the research was ensured through the formula suggested by Miles & Huberman (1994). The consistency between encoders was calculated using the formula (reliability = number of consensus / number of compromises + no compromise) proposed by Miles & Huberman (1994) to determine the reliability of consistency between the encoders.

Data Analysis

The reflective journals were analysed manually and read twice. This analysis was carried out through thematic content analysis, which refers to a process of working with raw data to identify and interpret key ideas or themes (Mathews & Ross 2010). The data from each participant's weekly reflective journals was observed as a whole process congruent to the themes. These codes were used to create general themes in accordance with the research questions. In the demonstration of data analysis, the researchers used pseudonyms instead of the respondents' actual names.

Results

In this section, the findings of the research based on the student-teachers' reflective journals were discussed separately based on the research questions of this study. A total of 24 female student-teachers' weekly reflective journal were reviewed twice and analysed. The results section will thereon use the term '***Respondent or R#***', which actually refers to the subject of this study, i.e., the student-teachers.

Research Question 1: What Observations do Student-Teachers Make Base on the Practicum Format Given?

Based on the weekly reflective journal, three main themes were observed to answer the first research question in relation to teaching and learning process. The **THREE** main thematic categories observed include planning (six codes), implementation (25 codes), and evaluation (seven codes). It seems that the student-teachers' observations were more focused and reflected more on lesson implementation, followed by evaluation and planning. The full summary of the themes observed is shown in Table 1.

Table 1

Themes and Sub-themes for Student-Teachers' Observation

Themes	Sub-themes
Teaching and learning process: Planning	• Planning effective lessons • Planning systematic lessons • Preparing learning materials • Planning fun and focused lessons • Planning creative lessons • Planning lessons in sequence (easy to complex)
Implementation	• Logistic behind the screen (students' attendance) • Keeping track of students' posting • Giving assignment • Giving meaningful feedback • Open communication • Student-centred • Provide reinforcement • Lesson modification • Approachable lessons • Good communication • Techniques in questioning (HOTs) • Use of instructional strategies • Patience • Problem-solving approach

- Commitment in teaching and learning
- Consolidating ideas
- Challenging students' minds
- Clear instructions
- Group work
- Sparks student interest
- Differentiated learning/instruction
- Professionalism in class
- Familiarisation with students
- Using authentic information
- Encourage imagination

Evaluation	
	- Reading students' feedback
	- Reinforce students' understanding
	- Positive reinforcement
	- Students' work process evidenced
	- Provide a grade system with students' participation in online learning
	- Peer group assessment

<u>Theme 1:</u> Student-teachers' practicum observation on lesson planning.

Respondents were concerned about preparing a good lesson plan so that students' engagement could be ensured. For example, R1 said that:

> *"I planned to do a Flipgrid assignment where students would introduce themselves, say some of their favourite things, and explain how they keep themselves well. It seemed like a great idea that was simple and easy enough to do for all of them in Year 8 and I've done similar assignments with those in Years 3-5 in the past with ease."*

<u>Theme 2:</u> Student-teachers' practicum observation on lesson implementation.

Respondents were concerned about differentiated learning when implementing their lesson. They believed that good structure in implementation will help students complete their assignment in time. For example, R7 said:

> *"I need to plan the lesson for the mixed-ability students in Years 7, 8 and 9. For those in Year 10, 11 and 13,I will need to provide a good structure for them to recognise their strength in art and drill their skills in thetechnical part. I will also need to ensure they are respecting the deadline for submitting the coursework as all the students' coursework will be packed and send to the United Kingdom for CIE examiners to check andgrade before April 2021."*

Theme 3: Student-teachers' practicum observation on evaluation.

Respondents were of the view that getting students' timely response will promote student learning. Thus, in order to help with good evaluation, they provide good feedback, allow students to make mistakes and give rewards. For example, R5 said that:

> *"Ms. Alice has shared a document via Google sheet on what the students did well, what they should practise in the future, how to improve, and responses from the students. This document via Google sheet will help the dialogue between students and teachers, respond to an assessment that helps student attainment, help students learn from their mistakes and repeat them less often, as learning from mistakes promotes lifelong learning and can be useful in judging the effectiveness of a lesson. Once students can participate in this learning process, they will be rewarded with stars or house points. I will be applying this into my subject as this will definitely makes me to be more organised in checking the students' ability…"*

Research Question 2: What are the Challenges Faced by In-Service Preschool Teachers Teaching Online?

Based on the content analysis, the weekly reflective journal has identified **FIVE** themes to answer the second research question. The three main themes are differentiated learning (two codes), teaching approaches (one code), students' learning motivation (three codes), content delivery (six codes), and teaching behind the screen (three codes) in relation to challenges faced by respondents in teaching online. The full summary of the themes observed is shown in Table 2.

Table 2

Themes and Sub-themes for Students-Teachers' Challenges Faced Teaching Online

Themes	Code
Differentiated learning	• Encouraging deep learning • Different levels of language proficiency among students
Teaching approaches	• Uncertainty using hybrid learning model
Students' learning motivation	• Getting students to take ownership of their own learning through hybrid learning • Maintaining students' full learning engagement or attention
Content delivery	• Providing good structure for differentiated learning • Finishing topics using hybrid learning • Gauging sufficient content for each lesson • Inability to control speech rate in delivery • Pacing lessons delivered • Time management in hybrid learning/ "clone learning"
Teaching behind the screen	• Uncertainty about conducive learning at home • Uncertainty about what is learning "behind the screen" • Controlling space, equipment, time, environment at home

Theme 1: Challenges experienced by student-teachers' in relation to classroom differentiated learning.

According to their reflections, one of the challenges experienced by the student-teachers was dealing with differentiated learning. For example, R4 explained it in the following:

> *"As a teacher, I need to focus on students who show less participationand are so quiet in the class. Through my observation, some students would not want to speak or respond to the teacher, but they are more comfortable using the chat box. I need to make those students feel more confident in sharing their ideas, answers and opinions with the rest of the class."*

Theme 2: Challenges experienced by student-teachers' in relation to teaching approaches.

Respondents believed it is important to relate content delivered with students' experiences. In addition, they were convinced that this will promote authentic learning. For example, R22 said that:

> *"Whilst students found it challenging to remember all the structures of the eye, trying the blind spot exercise and pupil reflex activity made their knowledge more real. This is something to keep in mind when planning lessons or set inductions. Try as much as possible to relate what is being taught with the students' daily life."*

Theme 3: Challenges experienced by student-teachers' in relation to students' learning motivation

Respondents felt that to consistently motivate students' learning and to keep them on their toes during learning was not easy. For example, R13 said that:

> *"Lessons became a little bit dull as they progressed. Even though the teacher puts in a lot of thought in preparing a lesson for students to enjoy learning, not all students feel the same way."*

Theme 4: Challenges experienced by student-teachers' in relation to content delivery.

Respondents agreed that completing different units in their lesson with a large number of students was difficult. In addition, keeping track of the new postings they received from students were a big challenge too. For example, R1 said that:

> *"The biggest challenge for Virtual P.E. has to be the logistics behind it all. I teach over 200 students (Secondary and Primary Schools), which turns out to be 10 different sections. Between creating new curriculum, keeping track of posting new assignments, giving meaningful feedback, and keeping an open communication with families, this has been extremely tough to manage."*

Theme 5: Challenges experienced by student-teachers' in relation to teaching behind the screen.

Respondents were concern that students were more passive "on the other side" of the screen in online learning. For example, R14 said that:

> *"As this is the second week of online learning, I noticed students become passive during the class discussion especially Year 11 students."*

Research Question 3: How do Student-Teachers Overcome the Challenges in Relation to Teaching and Learning Online?

The third research question was exploring student-teachers' ways of managing the challenges or issues in online teaching and learning. The **THREE** main thematic categories were observed in the weekly reflective journal. The thematic categories identified include practicing hybrid routine (19 codes), getting back up support (seven codes) and practicing professionalism (seven codes) were observed. Table 3 shows the full summary of the themes and codes related to how student-teachers overcome challenges in online learning.

Table 3

Ways Student-Teachers Overcome Challenges in Online Teaching

Themes	Code
Practicing hybrid classroom routine	• Set new expectations
	• Give rewards to students for their achievement in classroom
	• Controlling noisy atmosphere during hybrid lesson/manage interruptions
	• Give clear instructions
	• Provide rules before online lessons
	• Revisit lessons or lesson plans/ strategies/ techniques
	• Ensure students' full cooperation
	• Provide time for students' activity or thinking
	• Use real image for clear understanding
	• Relate students previous experience
	• Probe students with challenging questions
	• Attentive to students' questions
	• Teacher facilitates learning
	• Lessons should be prepared in advance
	• Relating lesson to students' real life
	• Create stimulating discussion
	• Intersperse lessons with activity
	• Allow students to express their ideas
	• Improvement through reflection

Getting back up support	• Communicating with parents to complete students' tasks
	• Observation activity among teachers
	• Commitment from teachers, students, and family.
	• Team teaching approach
	• Use "master" students to lead the class discussion
	• Encourage cooperative or collaborate work
	• Encourage students' learning
Practicing professionalism	• Time management
	• Adapting to hybrid learning environment
	• Ensure smooth transition of lesson
	• Teacher need to be competent and knowledgeable
	• Teacher has a positive mind-set
	• Plan and test lesson if it works
	• Teacher shows positive vibe in classroom

Theme 1: Ensuring the adaptation to hybrid learning classroom routine

Respondents' views revolved around being positive about adapting online teaching delivery because it was much easier. For example, R1 said that:

> *"My department has always had a combination of online learning as well as application in the gym. This has made our transition to virtual learning much easier. I also anticipate our transition to the hybrid approach fairly smooth as well. I loved my virtual meetings with my students. I will absolutely continue to do that when I return to in-person teaching. I also love the use of Flipgrid for students to submit evidence of learning."*

Theme 2: Providing good backup support

Respondents thought that obtaining support from friends, parents and other staff helps in promoting learning. For example, R12 said that:

> *"Small group discussions shall be arranged for higher- and lower-ability learners to work collaboratively. I should let the students to explain the comprehension before allowing them to answer the questions."*

Theme 3: Maintaining good teaching professionalism

Respondents indicated that clear instruction in teaching delivery is important based on students' ability. For example, R13 said that:

> *"With clear and simple instructions, students will adapt faster. Keep it simple and it will be easy to understand."*

Discussion

Learning Through Observation

Reflective journaling is part of self-evaluation and an important learning post-lesson process to improve student-teachers' practices. This study entails a cognitive apprenticeship theory that emphasises the importance of the process to master a skill for an apprentice (Skagen 2004). The development of apprenticeship theory originates from constructivist approaches in learning. In addition, this study was also consolidated by connectivism (Siemens, 2005), which advocates that connections and the way information flows that result in knowledge existing beyond the individual. Siemens (2005) also argues that "connectivism presents a model of learning that acknowledges the tectonic shifts in society where learning is no longer an internal, individualistic activity... Learning (defined as actionable knowledge) can reside outside of ourselves (within an organization or a database)."

The analysis of this study shows student-teachers are highly aware of the importance of planning, implementation and evaluation in teaching and learning as indicated by Köksal (2019). Reflection on planning, implementation and evaluation is part of the teachers' workload, in which these three processes in teaching overlap. Even though student-teachers define their practicum knowledge as a means to improve at their job, they deal with the daily challenges of teaching and seek to refine their professional practice. During the planning of their lessons, student-teachers are involved with thinking and writing in detail, which demands the production of effective teaching. However, there is tendency for student-teachers to incorporate their socio-cultural experiences in the pedagogical setting. Despite the observation made, student-teachers seem to accumulate self-confidence teaching in an online classroom with diverse settings and student backgrounds.

Challenges Faced in Online Learning

Based on the themes that have emerged in this study, it seems that challenges faced by student-teachers were basically focused on differentiated learning, teaching approaches, motivating students to learn, content delivery, and the difficulty teaching behind the screen. These findings were indicated by Köksal's (2019) findings.

The findings of this study seem to show that more than half of the student-teachers considered their students a major factor for the teachers' success in online learning. Many student-teachers shared positive observation of student behaviour, such as "attentive, well-behaved, good engagement" and many others. Teachers shared encouraging and positive experiences with their students throughout the teaching process.

However, some negative behaviour among the students was also observed, such as "chatty, not paying attention, asking too many questions, easily distracted" and others. Interestingly, these teachers are not weighed down by such negativity. Instead, they soldiered on with valid and authentic solutions. In fact, all of the teachers could find ways to view the minor setbacks simply as challenges. The teachers used different teaching method to suit the students' behaviour, like introducing games and fun activities/homework to promote good behaviour. Teachers also allocate good timing, during which students could discuss and talk during the lesson. This approach is in line with discussions by Kebritchi *et al.* (2017) and Zhuo Wang *et al.* (2021), wo promoted the notion that it is important for instructors (teachers) to recognise and support the nature of learners' online participation. Online listening is a form of active learning in which learners should be engaged with the content, own thoughts and reflection (Hrastinski, 2009).

From the data analysis, it was also found that only several teachers highlighted issues on class management. These issues include time management of online lesson, organisation of online activities and managing students online. It is quite difficult to control the students online due to the presence of the technology barrier. As students are mostly located in their own homes, the environment is not very conducive for promoting a classroom environment.

As it is, we know that behaviour at home is different from behaviour in a formal academic setting. There are many disruptions at home, such as interruptions from siblings or pets, traffic noise, especially if the location is near roads or highways, postal or delivery services, and many others. It is quite impossible for a teacher on one end to control the students' behaviour on the other end, unless it is achieved with the help of parents or patrons in the house. An important factor that teachers can consider to help students is learner readiness as proposed by Hung *et al.* (2010), who elaborated that to assist better learning in an online class, the teacher should look at several dimensions like self-directed learning, motivation for learning, computer and Internet self-efficacy, online communication self-efficacy, and learner control. Hence, learners who are highly motivated to learn at their own pace would probably enjoy online learning more than those who have less efficacy or motivation.

In addition, the data also showed that teachers are well aware of students' capabilities and proficiency in class and use this knowledge to plan, re-plan and modify lessons accordingly. The majority of teachers believe in changing the timing, activities and teaching style to adapt to issues regarding class management. Current discussions in teaching and learning are very focused on technology and multimedia. From the data collected, few teachers and students have had some issues related to technology. The issues include familiarity, limited knowledge and interruptions related to Wi-Fi signals, and online platform functions. From the data, teachers confessed that although it is very interesting to use new and interactive application or games, the success rate might not be as positive as expected due to students' unfamiliarity with them. As a result, teachers should be able to find different applications or games to promote the same understanding or achieve the learning objective(s). The teachers in this study seem to show good digital literacy skills and awareness, which is a good addition to assist students' learning. Nonetheless, it is essential to enhance the knowledge and implementation of digital learning among the students too, not just the teachers (Hassan *et al.,* 2020).

Coping Strategies in Online Learning

One way of coping with challenges faced in online teaching is employing authentic online lesson delivery to allow student-teachers to improve on their teaching deliveries. Moreover, student-teachers' lessons are very much influenced by their own psychological and philosophical beliefs too. Thus, from this perspective they were able to consolidate their understanding on the teaching and learning.

Student-teachers' reflective journals reported that obtaining students' feedback seems to help them improve on their teaching techniques and strategies and find ways to better motivate students. In addition, they were able to plan effective lessons and students successfully enabled to be more interested in the lesson. In order to further improve, student-teachers could improve their teaching delivery through the perspective of the Bandura learning theory.

Collaborating with senior teachers, building confidence as a teacher, developing tolerance and patience towards students, and having awareness of teachers' roles in the classroom act as an eye-opening experience for improvement and provides empathy and motivation towards each other in facing the challenges in the classroom. In the narratives of student-teachers, they can develop their own professional identity through good time management, adapting online learning delivery, ensuring smooth transition of lesson, becoming competent and knowledgeable, having a positive mind-set, revisiting lesson for improvement, and providing a positive vibe in classroom. Finally, it should be stated that student-teachers are aware that teaching as a profession requires more than being an expert in a particular subject matter. In addition, patience towards students' attitudes is a self-rewarding experience that promotes student-teachers' positive feelings and attitudes in online teaching.
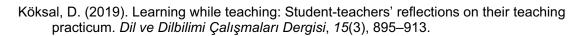
Conclusion

In conclusion, this case study has discussed reflective practices by student-teachers on their observation, challenges faced and coping strategies in online teaching during COVID-19. Student-teachers' observations focused mainly on lesson implementation, while challenges faced mainly revolved around the "unknown behind the screen." In developing coping strategies during this challenging time, student-teachers need a friendly, supportive online environment to allow them to deal with the difficulties of good Internet access. One future prediction is that as student-teachers become more computer-savvy, it will also be the time to become more effective and embrace hybrid or "clone" learning. Online teaching is not an option anymore. It is necessary and teachers must be ready in order to deliver quality instruction be it face-to-face or via e-learning. Reflective practices provide student-teachers with opportunities to connect theory with practice and enable them to strive professionally and ultimately, translate this into student learning.

The findings of this study have implications on practicum processes in relation to pedagogical approaches. Professionalism and refining knowledge through reflective thinking encourage student-teachers to provide well-executed lessons delivery. It can be concluded that student-teachers were very positive towards online teaching learning and could manage their anxieties well using online learning as they received a substantial online exposure. Since this study used a qualitative approach, the findings cannot be generalised. Nevertheless, the main focus of the study was to engage an in-depth understanding of teaching and learning, specifically on the reflective practice of student-teachers rather than a generalisation of the results. Thus, based on this study, it can be concluded that the adoption of online learning is imperative and will be a norm for many years to come. Teachers will need to continuously and creatively work on how to improve online teaching and learning.

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