Chapter

# Emergency Remote Teaching during COVID-19 Pandemic: Roles of Educators in Malaysia

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## Abstract

This chapter responds to the needs of educators in preparing to teach online fully due to the pandemic, COVID-19. This scenario becomes the new normal in the teaching and learning process during the COVID-19 pandemic. The main objective of this chapter is to investigate the roles of educators in one public higher learning institution in Malaysia during emergency remote teaching due to the COVID-19 outbreak. Emergency remote teaching is argued to be the answer to the sudden change from face-to-face teaching to a fully online teaching environment. Data for this chapter were collected through an online survey distributed to potential respondents. Adopting a case study and quantitative approach to research, descriptive and inferential statistical analysis were conducted and presented. Preliminary findings suggest two key challenges. Firstly, educators were ready to embark on transformative emergency remote teaching. Nonetheless, they were not sure of the differences between emergency remote teaching and online teaching; these two have different pedagogical approaches. Secondly, and perhaps most importantly, educators were able to use appropriate platforms and applications during the pandemic; however, they did not have ample time to study other platforms and applications. By this, the author argues that some educators have various options to choose from but may lack the knowledge and understanding on how these options work best. In accepting the new normal in teaching and learning, educators must be open to new and creative strategies to engage students during 100 percent online learning.

**Keywords:** COVID-19, emergency remote teaching, new normal, online presence, online teaching

## 1. Introduction

First discovered in December 2019, the COVID-19 pandemic has arguably affected sectors such as businesses, tourism and education of countries all over the world (see [1, 2]). Particularly relevant and significant for this chapter is how educators are coping with teaching fully online; for some educators, teaching fully online happens for the first time in their live. In Malaysia, the education landscape is about to be changed forever. With new normal of teaching and learning, primary and secondary schools, together with higher learning institutions are now faced with enormous tasks to ensure that students acquire the knowledge that have been arranged for their levels accordingly. Trained to teach physically or in face-to-face sessions, educators in Malaysia need to step up and provide a different level of commitment to teaching [3].

## 2. The context of the study

Data for this chapter were collected at the National Defence University of Malaysia (NDUM). The NDUM is the only tertiary military institution in Malaysia, awarding undergraduate and postgraduate degrees. For the undergraduate student population, there are about 65 percent military cadets and 35 percent civilian students (about 24 percent of these students are also enlisted in Reserve Officers Training Unit or ROTU). It is a residential campus since 98 percent students live on campus. Currently, there are 17 academic undergraduate programmes offered to students, including Engineering programmes, Maritime programmes and Strategic Studies and Management programmes. Military cadets and ROTU students have to attend military training on campus during the weekends and holidays. Especially for the military cadets, they have to also participate in physical exercises, rollcalls and other military administrative duties on daily basis.

The second semester of the Academic Session 2019/2020 has started when the government of Malaysia introduced and enforced the Movement Control Order (MCO) to stop the spread of COVID-19. The MCO started during the fifth week of the semester; this was when the face-to-face sessions had started, and after that the teaching and learning processes resumed online, fully. During this MCO, which started on the 18th of March 2020, all students, including the military cadets were transported home to be with their families. The semester resumed online a week after the students had settled comfortably at home. The remaining online sessions included lectures, tutorials, assignments, tests as well as final examinations. It needs to be emphasised that some planned teaching and learning activities were not able to be conducted due to the MCO such as fieldtrips, laboratory works and industrial training.

There are two research questions for this research; first, on the educators' readiness to teach online fully from the aspect of their pedagogical readiness. By pedagogical readiness, it is argued that there are differences in the practical applications of emergency remote teaching and online teaching (see [4, 5]). Second, on the platforms, tools and applications used for online teaching. Given that the MCO came as a surprise, educators had no choice but to comply with the existing platforms, tools and applications in completing their teaching responsibilities. These two research questions answer the main objective of this chapter, which is to understand the roles of educators during emergency remote teaching.

There are four key terms used throughout this chapter that must be explained. Firstly, emergency remote teaching, which refers to a temporary and unplanned teaching solution due to a sudden change of the teaching environment. Secondly, the term new normal, which suggests that new practices and routines that must be followed in the current situation. Thirdly, online presence refers to the presence of educators online to assist students, and the amount of presence depends on the students' competency level. The last term is online teaching, that is the process of teaching conducted fully online, with planned and established curricula, including teaching and learning materials, learning activities and assessments.

### 2.1 Online teaching and emergency remote teaching

Previous research on online teaching and emergency remote teaching are included in order to provide critical background on what should be the roles of educators during this COVID-19 outbreak. It is argued that emergency remote teaching must not be equate to online teaching (fully), considering the differences in their educational approaches [6]. Further, the critical key to differentiate the two is the insufficient time to properly plan for curriculum transformation; emergency remote teaching does not have the luxury of planning [7].

### *2.1.1 Online teaching*

The effectiveness and drawbacks of online teaching and learning, or simply online education, have been debated for decades. Scholars from all over the world have looked at various research studies, theories, models, standards and evaluation criteria, which focus on quality online learning, online teaching and online course design (see [8]). Before further discussions are held, it is appropriate to provide a conceptual definition of online education for this chapter. According to Bakia et al. [9], online education, which includes online teaching and learning can be used to refer to "a wide range of programmes that use the Internet to provide instructional materials and facilitate interactions between teachers and students, and in some cases amongst students as well." Accordingly, online education can be fully online, with all instructions taking place through the Internet, or online elements can be combined with face-to-face sessions known as blended learning (see also on blended learning [10]).

Online teaching cannot be explained properly without the discussions on online learning. This is because the two depend on each other; therefore, critical aspects of online learning will also be highlighted. For example, Hoi et al. [11] found in their study that based on the types of learning tasks and the forms of feedback information, online learning can be divided into three major categories: (a) online supervised learning where full feedback information is always available, (b) online learning with limited feedback, and (c) online unsupervised learning where no feedback is available. What Hoi et al. suggest is that the presence of educators online can be based on the amount of assistance needed by the students. In addition, Means et al. [12] explored the online learning design options by listing various moderating variables, including roles of students and educators, as well as ratio of students during the online lessons. These design options are summarised in **Table 1**.

What could be discerned from **Table 1** are twofold. First, online education for both teaching and learning would require careful planning in order to ensure that the curricula are delivered effectively, and that students and educators are able to work synchronously or asynchronously online. Manfuso [14] in her research also found that designing an effective online course could take weeks and months. Second, roles of students and educators are not definite; accordingly, and when appropriate, both students and educators can negotiate what they need to be doing.

In addition, according to Boon [15], educators' presence in an online learning and teaching environment is important in engaging students. Despite the options offered that educators may choose to have a smaller or zero presence online (refer to **Table 1**), Boon proposed several facilitation strategies that can make students more motivated and interested in their learning; these require active and *big* presence of the educators online. **Table 2** illustrates these strategies.

It is evident that, regardless of whether educators have small or big presence online, students need to know that they are not alone in the virtual classrooms. The author argues that in choosing to be present small or big online, several factors must be taken into consideration, including students' level of competency in the course and students' availability to be online (access and data consumption). Some students may be left to assume more independent learning online, and some may require the utmost assistance imaginable. As Hoi et al. [17] have put forth that online feedback to students depend on the students' capability to learn independently or dependently. The next section explores emergency remote teaching in detail, and highlights differences between online teaching and emergency remote teaching.

| Moderating Variables | Important Aspects |
|---|---|
| **Modality** | • Fully online<br>• Blended (over 50% online)<br>• Blended (25–50% online)<br>• Web-enabled face-to-face |
| **Pacing** | • Self-paced (open entry, open exit)<br>• Class-paced<br>• Class-paced with some self-paced |
| **Student Ratio** | • < 35 to 1<br>• 36–99 to 1<br>• 100–999 to 1<br>• > 1000 to 1 |
| **Pedagogy** | • Expository<br>• Practice<br>• Exploratory<br>• Collaborative |
| **Roles of Online Assessment** | • Determine if students are ready for new contents<br>• Tell system how to support the students (adaptive instruction)<br>• Provide students or teachers with information about the learning state<br>• Input to grade<br>• Identify students at risk of failure |
| **Instructor Role Online** | • Active instruction online<br>• Small presence online<br>• None |
| **Student Role Online** | • Listen or read<br>• Complete problems or answer questions<br>• Explore simulations and resources<br>• Collaborate with peers |
| **Online Communication Synchrony** | • Asynchronous only<br>• Synchronous only<br>• Some blend of both |
| **Source of Feedback** | • Automated<br>• Teachers<br>• Peers |

**Table 1.**
*Online design options [13].*

### *2.1.2 Emergency remote teaching*

Emergency remote teaching is arguably a new concept derived due to the pandemic [18]. It is also suggested to be one of the educational responses to the COVID-19 outbreak [19]. When the need for schooling arises, emergency remote teaching becomes a temporary solution in order to allow students to continue with

| What to do? | How to do? | Online tools to use |
|---|---|---|
| **Offer synchronous online office hours to support student learning and knowledge development** | • Face-to-face meetings<br>• Telephone consultations<br>• Online audio/video | • Collaborate (Blackboard Learn)<br>• Skype<br>• Google Hangouts |
| **Engage in personal communication with students, individually or as a group** | • Email greetings<br>• Posted or recorded welcome messages (audio or audio + video)<br>• Post announcements on the course page | • Email<br>• Blackboard Video Tool<br>• Other lecture capture software (such as Camtasia, Mediasite) |
| **Provide recorded lectures and assignment explanations** | • Audio + video (highly recommended)<br>• Audio only (at minimum) | • Mediasite<br>• Audacity (audio only)<br>• Screencast-o-matic<br>• PowerPoint (with audio) |
| **Provide direct (synchronous instruction)** | • Develop seminar or lecture courses<br>• Facilitate meetings with students<br>• Set up student group work space | • Google Hangouts |
| **Interact regularly with students, individually or in groups** | • Email<br>• Participate in online group discussions<br>• Conduct chat sessions with individuals or groups | • Collaborate (Blackboard Learn)<br>• Google Hangouts |
| **Create a positive learning environment to stimulate learning** | • Show respect for students by appropriate conversational tone and word choice | • Email |

**Table 2.**
*Selected facilitation strategies [16].*

their lessons [20]. Despite being unsure of emergency remote teaching, educators have to continue to teach. According to Talidong [21] in her study of teachers involved in emergency remote teaching, the main findings of this study emphasise several aspects such as the positive outlook, concern for students, and instructional strategies of the Philippine teachers in implementing emergency remote teaching. Despite the difficulties to arrange lessons virtually from distance, the respondents were aware of the instructional strategies that could be employed.

In an attempt to ensure that teaching and learning online is effectively and successfully achieved, Whittle et al. [22] proposed a framework for emergency remote teaching. These scholars combined two frameworks – Sawyer's [23] framework for creating a learning environment and Garrison and Arbaugh's [24] community of inquiry framework for online learning – to develop the emergency remote teaching environment framework. Findings from this study suggest that educators need to reaffirm their online presence by guaranteeing that they are visible accordingly either within or outside of the online teaching sessions.

Some educators may find it difficult to conduct online assessments during the emergency remote teaching phase. Rahim [25] suggested nine aspects that must be

| Characteristics | Emergency Remote Teaching | Remote Teaching | Enhanced Remote Teaching | Online Teaching |
|---|---|---|---|---|
| **Planning** | • None | • Developed incrementally and added regularly based on the progress of students<br>• May be adjusted weekly<br>• Existing courses moved to online environment<br>• Lack of analysis, design, planning and evaluation | • Existing courses moved to online environment<br>• Feedback from learners helping to inform course elements<br>• Developed Incrementally<br>• When face-to-face instruction resumes, likely to return to face-to-face delivery | • The use of a framework (such as ADDIE or other models) to support development<br>• Developed specifically and intentionally to be delivered online, irrespective of the status of pandemic |
| **Preparation** | • Less than 1 week | • 2 weeks to 3 weeks | • Variables | • Variable, but usually anywhere from 4 months (1 term) up to 1 year |
| **Design** | • Designed as face-to- face or hybrid | • Designed as face-to-face or hybrid<br>• Designed by faculty members with varying levels of experience with learning technologies | • Designed as face-to-face or hybrid<br>• Designed by faculty members with varying levels of experience with learning technologies<br>• Informed by training and workshops to support the development of 2–3 student self-directed learning experiences | • Designed for online<br>• Designed with instructional designer and media support<br>• Various technologies have been chosen and tested for specific learning activities to facilitate a self-directed learning experience |

| Characteristics | Emergency Remote Teaching | Remote Teaching | Enhanced Remote Teaching | Online Teaching |
|---|---|---|---|---|
| **Development Frameworks** | • Often developed and adjusted on a weekly basis, with consideration of an overall course blueprint | • Adjusted on a weekly basis, with consideration of an overall course blueprint | • Adjusted on a weekly basis, with consideration of an overall course blueprint | • Fully developed at the start of the course<br>• May go through multiple iterations before development is considered complete |
| **Content** | • Minimal to no change<br>• Transferred from in-class to learning management system<br>• Mostly text-based<br>• Required resource already in place and used by students | • Use of existing content already developed<br>• Possible supplemental content added, ideally in multimedia format | • Enhancement of existing content already developed<br>• Increase of supplemental and supportive materials<br>• Increasing balance of dynamic and static resources | • Selected, developed and implemented as part of the design and development process<br>• Greater preference for multimedia resources<br>• Use of dynamic learning activities<br>• Greater reliance on advanced features of learning management system, such as intelligent agents |
| **Educators' Presence** | • Active instructor presence<br>• Synchronous, in alignment with scheduled class times, with additional availability, as required to support student adjustment to online environment | • Active instructor presence<br>• Primarily synchronous, in alignment with scheduled class times<br>• Recordings of synchronous 'classes' may be available following the class | • Active instructor presence<br>• Mix of synchronous and asynchronous classes, with many classes following a weekly scheduled class time<br>• Recordings of synchronous 'classes' may be available following the class<br>• Additional recordings may be made in advance and made available in lieu of synchronous class | • Typically designed for students to complete as self-directed, with regular monitoring and check-ins with instructor<br>• Typically asynchronous, but may have synchronous elements |

| Characteristics | Emergency Remote Teaching | Remote Teaching | Enhanced Remote Teaching | Online Teaching |
|---|---|---|---|---|
| **Assessments and Evaluations** | • Use existing assessments, with alternative assessments necessary in certain cases<br>• In some cases, substantial completion ("80%") was sufficient for completion | • In the majority of cases, using existing approved course outlines, with Course Section Information (CSI) addendum<br>• Use existing assessments, with alternative assessments necessary in certain cases | • Updates to curriculum<br>• CSI documents to detail delivery expectations<br>• Use existing assessments, with alternative assessments necessary in certain cases | • Utilising same course outline, with modifications to the CSI document to denote delivery expectations<br>• Assessments designed for online learning environment |

**Table 3.**
*Selected characteristics of emergency remote teaching compared with online teaching [28].*

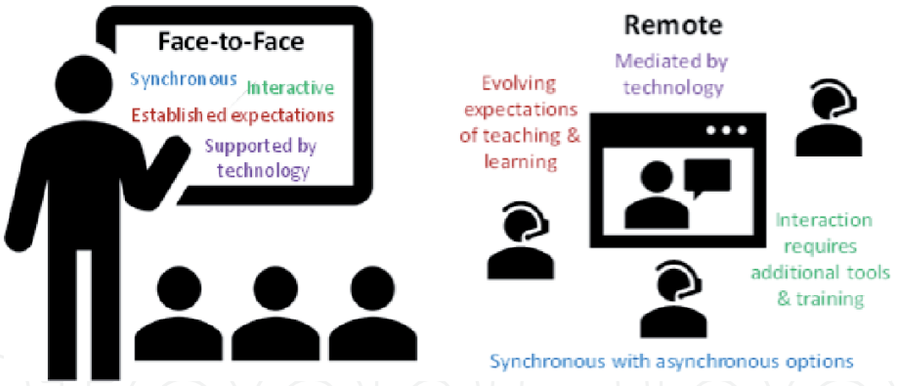


**Figure 1.**
*The scenario between face-to-face sessions and emergency remote teaching [27].*

considered when conducting online assessments during this phase. These include evaluating prerequisites for implementing online assessment; ensuring alignment of assessment activities with stated learning objectives; addressing the diversity of students' situations; maintaining a good balance of formative and summative assessments; stimulating student learning with online assessment; considering format; scheduling and timing of tests; establishing clear communication to students regarding assessment matters; ensuring high-quality feedback; and addressing assessment validity threats. Although all these aspects can be familiar to some educators, others may find them new, yet helpful during this time of crisis.

A group of educators at Algonquin College [26] described the differences and evolutions from emergency remote teaching to eventually, online teaching (see **Table 3**). What is reiterated is the fact that emergency remote teaching is a non-planned teaching strategy, and it is just a temporary measure. To demonstrate further the meaning of emergency remote teaching, **Figure 1** confirms some characteristics of emergency remote teaching, including the evolving expectations of the educators as well as students, and synchronous with asynchronous options for teaching and learning.

Based on **Table 3**, it can be concluded that when an academic programme is planned properly to be offered virtually, it can be categorised as online education; teaching and learning will be conducted online. Emergency remote teaching can ultimately become online teaching once it has stabilised and matured; by this, the author argues that there must be proper and adequate time allocated to design and develop the curricula, including the learning materials, activities and assessments.

To sum up this section, both online teaching and emergency remote teaching should be used in different educational situations. What the teaching world is facing now may best be solved by emergency remote teaching because educators are put into the positions of teaching online fully without having the time to plan, design and select the best teaching tools for the students.

## 3. Methodology

This research employed a case study approach in order to understand the challenges faced by educators teaching during the pandemic. Stake [29] noted that there are three kinds of case studies, namely intrinsic, instrumental and collective. An intrinsic case study focuses on understanding a specific case rather than focussing on a common understanding. Conversely, a collective case study is about understanding more than one case either at one site or multiple locations. Using Stake, this research is an instrumental case study, where it focuses on gaining a general understanding of an issue by studying a particular case, educators at the NDUM.

Case studies have many advantages, such as allowing for comparative study and the support for generalisations [30, 31]. They are also empirically strong because they are grounded in observable realities. However, there are also weaknesses, the main one being that they lack statistical reliability because they can be narrow in their focus. Gummesson [32] counter-argued on the weaknesses of the case study method by insisting that statistical or scientific methods are less insightful in instances where understanding human behaviour is more important. In addition, the case study approach does not rule out statistical analysis. The current research uses quantitative data for descriptive and inferential analysis. This quantitative approach is chosen because the author wants to gauge the general perspectives of educators at the Defence University on teaching during the COVID-19 pandemic.

### 3.1 Population and sampling

There are 340 active academics at the NDUM during the period of data collection. The author chose convenience sampling because the potential respondents can be reached easily through WhatsApp and emails. There were 63 respondents out of 340 academics (18.5 percent), who answered the online survey, and these were the basis for analysis and discussion in this chapter. The author did not force academics to complete the survey since it was on voluntary basis. Despite this small number of respondents, the author opines that the data were sufficient for preliminary discussions on emergency remote teaching.

### 3.2 Research instrument and data collection

An online survey was used to collect data. Using Google Forms, items were arranged according to sections explained later. The survey can be found at https://bit.ly/2Zaozjc (see **Figure 2** for the screenshot of the survey), and it was available from the 5th of September until the 18th of September 2020 (about two weeks). Two methods were used to invite potential respondents; first, WhatsApp messages were sent to groups of faculties and academic centres at the NDUM, and second, emails were sent to all academics at the NDUM.

Items in the survey were divided into a demographic section, perceptions about online teaching and emergency remote teaching section, and commentary section. Two types of scales were used in the survey, a 4-point likert and 5-point likert scale, together


**Figure 2.**
*The screenshot of the online survey.*

with 'Yes,' 'No' and 'Not Sure' scale. As emergency remote teaching is barely known to most educators, the author has specifically prepared four items on emergency remote teaching. Further, the items in the survey mostly originated from the existing literature on online teaching and emergency remote teaching. The survey was bilingual in order to cater for local and international academics at the Defence University.

### 3.3 Data analysis

The final data collected from 63 respondents were analysed using Statistical Package for Social Sciences (SPSS) Version 25, and they were presented in mostly descriptive statistics. Whilst descriptive data were used to answer the research questions posed earlier, inferential data provided different perspectives on the current teaching situations. Data analysis involved the use of frequency tables and graphs for percentages and figures. Since the objective of the paper is to investigate the roles of educators during the pandemic, descriptive data obtained were able to shed lights into the situations faced by the respondents. Meanwhile, inferential statistics were able to illustrate the relations or significance of variables in this study.

## 4. Findings

### 4.1 Demographic information

There are seven faculties and academic centres at the Defence University; given this, the online survey was only open to academics under these faculties and centres. Although there are also academics appointed as fellow researchers in centres of excellence at the Defence University, they are also part of these seven faculties and academic centres. **Figures 3-6** illustrate the demographic information of the research respondents. To explain further the labels for the faculties and academic centres, below is the explanation for the acronyms used,

a. AKP – Defence Fitness Academy

b. PAP – Centre for Foundation Studies

c. PB – Language Centre

d. FKJ – Faculty of Engineering

e. FPPP – Faculty of Defence and Management Studies

f. FPKP – Faculty of Medicine and Defence Health

g. FSTP – Faculty of Science and Defence Technology

Based on **Figure 3**, it is evident that the respondents of this study mostly came from the Language Centre, 24 respondents, and the least number of respondents came from two faculties, the Defence Fitness Academy and Faculty of Medicine and Defence Health, with three respondents each. In terms of age range, most respondents were between 36 to 40 years old (24 respondents) and the least number of respondents was at the range of 25 to 30 years old (two respondents).

In addition, most respondents have more than 10 years of teaching experience (31 respondents); nonetheless, it should be emphasised that the older the academics were does not equate to more years in teaching. This could be explained by the fact

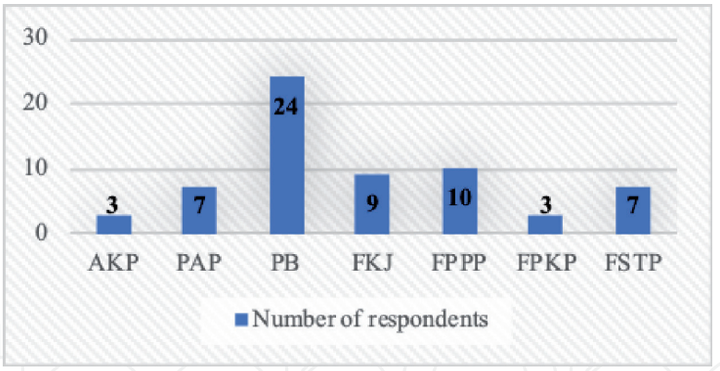


**Figure 3.**
*The respondents and their respective faculties/academic centres (in number).*


**Figure 4.**
*The gender of the respondents (in number).*

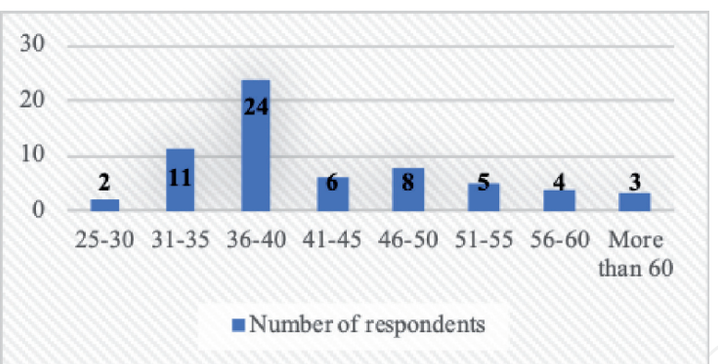


**Figure 5.**
*The age of the respondents (in number).*

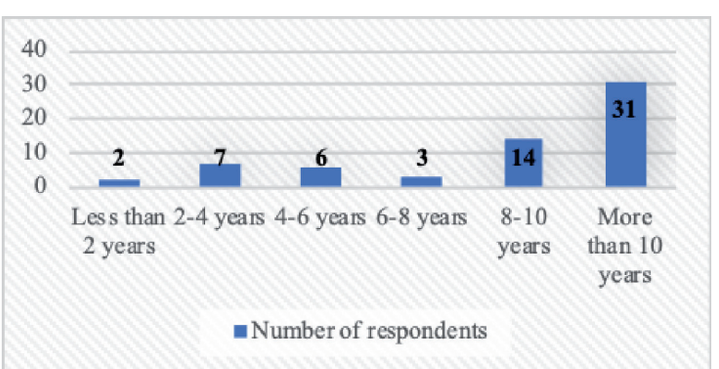


**Figure 6.**
*Years of teaching experience of the respondents (in number).*

that some join teaching profession at a later age after gaining industrial experience. Further, the number of female respondents was slightly higher than the male counterparts; in actual fact, this is the real resemblance of the total academic population at the NDUM, with about 50.3 percent female academics.

### 4.2 Descriptive findings

Data are explained in two main categories, including respondents' perceptions about online teaching and their knowledge about emergency remote teaching, and respondents' choice of platforms, strategies and applications during the pandemic. The first item asked was whether the respondents had experienced teaching fully online. 44 respondents (69.8 percent) confirmed that they have had the experience, and 19 respondents responded 'No' to this item. This item is key in understanding the responses for the subsequent items asked. The author opines that some respondents have not been involved completely in teaching online fully because they teach the Foundation and Diploma students, who were not in sessions from March until July 2020.

The next three items sought respondents' knowledge and awareness on the differences between emergency remote teaching and online teaching. The findings are summarised in **Figures 7–9** below. It can be discerned from these figures that respondents at the NDUM were not sure of what emergency remote teaching is and its differences to online teaching. The majority of the respondents chose 'Not Sure' for these three items. This is not surprising since emergency remote teaching is a new and temporary solution to teaching in times of crisis.

The respondents were also asked on the perceptions about teaching online fully. **Figure 10** illustrates the views of all respondents. A 4-point likert scale was used for this item, ranging from 'Strongly Not Effective' (1) to 'Strongly Effective' (4). As can be observed, 44.4 percent of the respondents (28 people) opted for 'Not

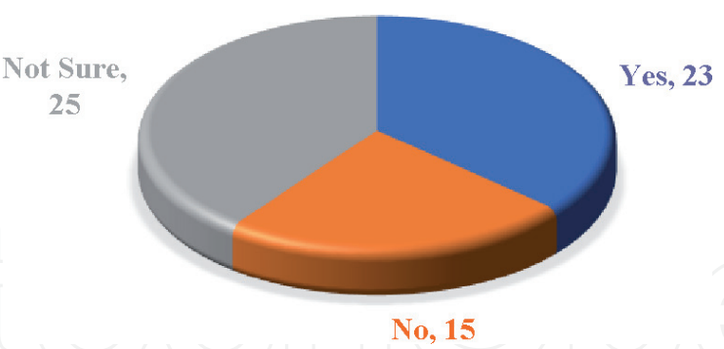


**Figure 7.**
*Responses to the item "Understand the concept of Emergency Remote Teaching" (in number).*

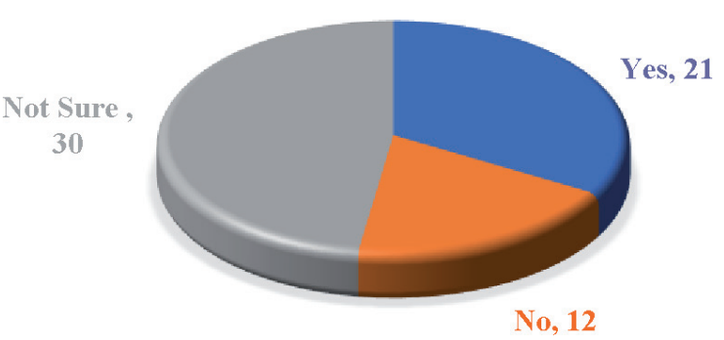


**Figure 8.**
*Responses to the item "Able to distinguish between emergency remote teaching and online teaching" (in number).*

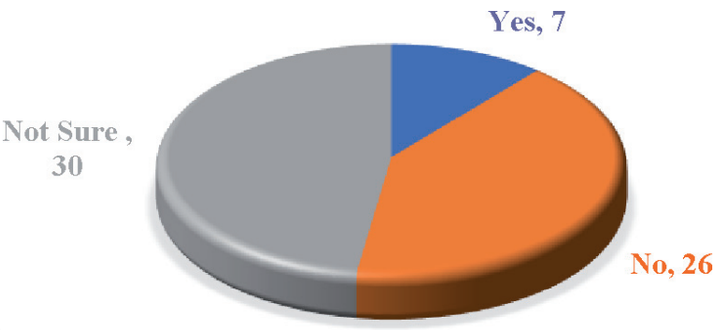


**Figure 9.**
*Responses to the item "Emergency Remote Teaching and Online Teaching are similar" (in number).*

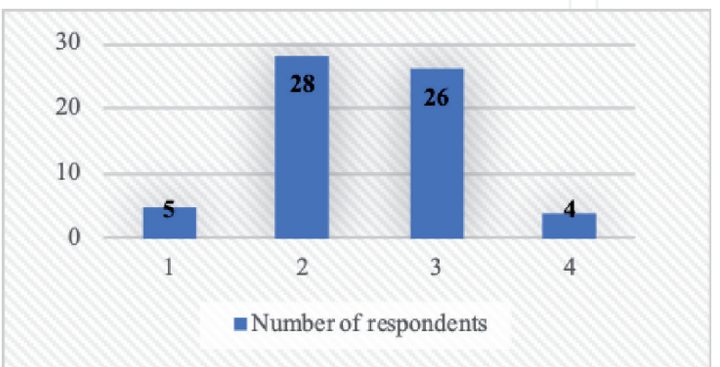


**Figure 10.**
*Responses to the item "Perceptions about teaching online fully" (in number).*

Effective,' and 7.9 percent (5 people) opted for 'Strongly Not Effective.' Combining these two scales makes up for the slight majority of the respondents, who opined that teaching online fully lacks effectiveness (33 respondents or 52.3 percent).

In addition, **Tables 4** and **5** tabulate the views of the respondents on what platforms and strategies that they used the most during the pandemic and the most effective platforms and strategies in their opinions. From **Table 4**, it can be deduced that WhatsApp is often (19 respondents) and always (18 respondents) used by the respondents, together with MS Teams for Video Conferencing (51 respondents) and Quizzes (34 respondents). Further, **Table 5** shows similar platforms and applications that the respondents believed to be the most effective (combining 'Effective' and 'Strongly Effective'), WhatsApp and MS Teams for Video Conferencing and Quizzes with 44, 58 and 53 respondents, respectively. In additions, respondents also opined that Al-Fateh e-Learning Portal, Google Forms, Google Meet and Zoom to be effective platforms too.

### 4.3 Inferential findings

This section explains the relations between selected items in the survey. Four sets of items will be tested on the strength of relations, and they are firstly correlation between years of teaching experience and the ability to distinguish between emergency remote teaching and online teaching (**Figure 11**); secondly, between opinions about teaching online fully and opinions about blended teaching (**Figure 12**); thirdly, between years of teaching experience and perceptions about blended teaching (**Figure 13**); and lastly between years of teaching experience and opinions about teaching online fully (**Figure 14**).

There are numerous ranges and interpretations on the correlation indicators (see **Table 6**); the author opts for the indicators by Sarwono [33] simply because the indicators are more representative of the author's data. The indicators are divided

| Online Teaching Platforms/Scales | Never | Rarely | Sometimes | Often | Always |
|---|---|---|---|---|---|
| **WhatsApp** | 9 | 6 | 11 | 19 | 18 |
| **Al-Fateh e-Learning Portal** | 9 | 8 | 12 | 20 | 14 |
| **MS Teams (Video Conferencing)** | 1 | 4 | 7 | 25 | 26 |
| **Kahoot!** | 33 | 4 | 15 | 8 | 3 |
| **Google Forms** | 13 | 7 | 19 | 12 | 12 |
| **MS Teams (Quizzes)** | 13 | 5 | 11 | 16 | 18 |
| **Exam.Net** | 50 | 3 | 3 | 5 | 2 |
| **Google Meet** | 24 | 9 | 10 | 16 | 4 |
| **Twitter** | 56 | 3 | 1 | 3 | 0 |
| **Facebook** | 52 | 6 | 0 | 5 | 0 |
| **Telegram** | 38 | 5 | 9 | 7 | 4 |
| **Skype** | 35 | 11 | 7 | 9 | 1 |
| **Zoom** | 16 | 9 | 13 | 19 | 6 |

**Table 4.**
*Responses to the item "Online teaching platforms and strategies that respondents use the most" (in number).*

| Online Teaching Platforms/Scales | Strongly Not Effective | Not Effective | Effective | Strongly Effective |
|---|---|---|---|---|
| **WhatsApp** | 4 | 15 | 27 | 17 |
| **Al-Fateh e-Learning Portal** | 5 | 11 | 33 | 14 |
| **MS Teams (Video Conferencing)** | 0 | 5 | 29 | 29 |
| **Kahoot!** | 11 | 17 | 29 | 6 |
| **Google Forms** | 1 | 8 | 43 | 11 |
| **MS Teams (Quizzes)** | 4 | 6 | 37 | 16 |
| **Exam.Net** | 17 | 17 | 26 | 3 |
| **Google Meet** | 10 | 11 | 31 | 11 |
| **Twitter** | 38 | 22 | 11 | 0 |
| **Facebook** | 29 | 23 | 10 | 1 |
| **Telegram** | 19 | 20 | 22 | 2 |
| **Mentimeter** | 20 | 23 | 19 | 1 |
| **Skype** | 13 | 20 | 26 | 4 |
| **Zoom** | 10 | 11 | 36 | 6 |

**Table 5.**
*Responses to the item "Online teaching platforms and strategies that are most effective" (in number).*

into six ranges; they begin with '0' to indicate no correlation of the variables, and end with '1' to depict a perfect correlation between two variables. Correlation data can also be positive and negative, indicating the directions of the relations.

Based on **Figures 11–14**, it can be concluded that there are negative and positive correlations between the items; positive correlation suggests that when one variable increases, the other also increases, and negative correlation indicates otherwise. For example, there is a very weak correlation (negative, −.071) between years of teaching experience and the ability of respondents to distinguish between emergency

**Correlations**

| | | Years of Teaching Experience | Differentiate Emergency Remote Teaching and Online Teaching |
|---|---|---|---|
| Years of Teaching Experience | Pearson Correlation | 1 | -.071 |
| | Sig. (2-tailed) | | .580 |
| | N | 63 | 63 |
| Differentiate Emergency Remote Teaching and Online Teaching | Pearson Correlation | -.071 | 1 |
| | Sig. (2-tailed) | .580 | |
| | N | 63 | 63 |

**Figure 11.**
*Correlations between teaching experience and ability to differentiate emergency remote teaching and online teaching.*

**Correlations**

| | | Opinions about Teaching Online Fully | Blended Teaching more suitable for the Respondents |
|---|---|---|---|
| Opinions about Teaching Online Fully | Pearson Correlation | 1 | .407** |
| | Sig. (2-tailed) | | .001 |
| | N | 63 | 63 |
| Blended Teaching more suitable for the Respondents | Pearson Correlation | .407** | 1 |
| | Sig. (2-tailed) | .001 | |
| | N | 63 | 63 |

**. Correlation is significant at the 0.01 level (2-tailed)

**Figure 12.**
*Correlations between opinions about teaching online fully and opinions about blended teaching.*

**Correlations**

| | | Years of Teaching Experience | Blended Teaching more suitable for the Respondents |
|---|---|---|---|
| Years of Teaching Experience | Pearson Correlation | 1 | -.175 |
| | Sig. (2-tailed) | | .170 |
| | N | 63 | 63 |
| Blended Teaching more suitable for the Respondents | Pearson Correlation | -.175 | 1 |
| | Sig. (2-tailed) | .170 | |
| | N | 63 | 63 |

**Figure 13.**
*Correlations between teaching experience and opinions about blended teaching.*

remote teaching and online teaching (see **Figure 11**). What this suggests is that as the years of teaching experience increase, the respondents were perhaps not able to distinguish between emergency remote teaching and online teaching.

Meanwhile **Figure 12** illustrates a sufficient correlation (positive, .407) between opinions of respondents about teaching online fully and blended teaching. Thus, as more respondents chose to agree with teaching online fully is

**Correlations**

| | | Years of Teaching Experience | Opinions about Teaching Online Fully |
|---|---|---|---|
| Years of Teaching Experience | Pearson Correlation | 1 | .126 |
| | Sig. (2-tailed) | | .324 |
| | N | 63 | 63 |
| Opinions about Teaching Online Fully | Pearson Correlation | .126 | 1 |
| | Sig. (2-tailed) | .324 | |
| | N | 63 | 63 |

**Figure 14.**
*Correlations between teaching experience and opinions about teaching online fully.*

| Range | Interpretations |
|---|---|
| 0 | No correlation |
| 0.00–0.25 | Very weak correlation |
| 0.25–0.50 | Sufficient correlation |
| 0.50–0.75 | Strong correlation |
| 0.75–0.99 | Very strong correlation |
| 1 | Perfect correlation |

**Table 6.**
*Correlation indicators (positive and negative) [34].*

less effective, the more they opined that blended teaching is suitable for them. Further, **Figure 13** demonstrates that there is a very weak correlation (negative, −.175) between years of teaching experience and opinions about whether blended teaching is suitable for the respondents; as the years of teaching increase, the respondents' view on whether blended teaching is suitable for them decreases. In addition, **Figure 14** illustrates that there is a very weak correlation (positive, .126) between years of teaching experience and opinions about teaching online fully. This illustrates that as years of teaching experience increase, the views that teaching online fully is not effective also increase, although the correlation is relatively small and weak.

## 5. Discussions

From the data presented in the previous section, the author argues that, especially for the inferential statistics, too many respondents opted for 'Not Sure' when asked about emergency remote teaching and online teaching. In their defence, the author opines that since emergency remote teaching appears out of a sudden, these respondents may not be able to clearly define between emergency remote teaching and online teaching. Nonetheless, the data become a benchmark for the next step that must be taken by all educators in preparing for the unknown challenges.

Two research questions were posed earlier. The first is whether the educators at the NDUM were ready to embark on teaching during times of crisis, and the second is the platforms, tools and applications that were used by the educators during the pandemic. For the first research question, the author argues that the majority of

the respondents were ready to teach during the pandemic; nonetheless, they were not able to clearly distinguish between their teaching situation and environment at the time, which is emergency remote teaching and online teaching. This is based on **Table 4**, where the respondents were able to name the platforms and applications used for teaching, and **Table 5**, where they gave their perspectives on the effectiveness of the platforms and applications used.

Regardless of this, most respondents responded 'Not Sure' for survey items on differences between emergency remote teaching and online teaching, understanding of what emergency remote teaching is, and on whether both concepts are similar (refer to **Figures 7–9**). In addition, some respondents claimed in the commentary section of the survey that face-to-face teaching is never to be replaced by emergency remote teaching or online teaching. They believed that teaching conducted fully online is not effective. The inferential statistics also support this (see **Figure 12**); most respondents opined that teaching online fully is not effective, and that blended teaching suits them better (as the number of respondents choosing teaching online fully is ineffective increases, so does that number of respondents who agreed that blending teaching is suitable for them).

For the second research question, it is found that most respondents utilised WhatsApp and MS Teams (for video conferencing and quizzes). Although the other options were also selected by some of the respondents (see **Tables 4** and **5**), the author argues that these two platforms and applications are easily accessible to both educators and students. Almost all have WhatsApp application installed in their mobile phones, and MS Teams is subscribed by the NDUM.

The author also argues that where some of the platforms and applications have never been used by the respondents, the sudden change of teaching scenario and environment does not warrant time for the respondents to explore these other platforms and applications, such as Twitter, Facebook and Exam. Net (56, 52 and 50 respondents, respectively had never used these during the pandemic). Further, based on the commentary section of the survey, a few respondents opined that in order to utilise some of the platforms and applications, *educators and students* require a stable connection to the Internet and a huge data consumption; the question remains whether both educators and students have these Internet stability and ample Internet data.

Given all these discussions, the author opines that the most important finding of this study is the roles of educators in an emergency remote teaching environment. There are two main roles. Firstly, educators must be prepared to have an online presence; either a small or big online presence depends on the students' level of competency of the lessons. This online presence is crucial in motivating and encouraging the students to stay focus and active online. Secondly, choosing the best and most suitable platforms is also important. There are no fixed rules on choosing what is best for both the students and educators. Notwithstanding this, knowing what the students require and their capability to be online may dictate the choice of suitable strategies and platforms in an emergency remote teaching environment.

## 6. Recommendations

Two recommendations can be offered based on the findings of this study. First, the academics must be made aware of the differences between emergency remote teaching and online teaching. Knowing and understanding of what emergency remote teaching is allow the academics to choose the most appropriate teaching platforms, strategies and applications post COVID-19. Where students are still required to learn online, so does the teaching practice continue online. **Table 3** may be of assistance to all educators, who want to ensure that their teaching benefits the students.

Second, the administrators of the higher learning institutions (and secondary as well as primary schools) may need to invest on redesigning and revamping the existing curricula in order to match post COVID-19 teaching and learning environment. The educational institutions must be ready to offer systematic and effective online education, including online activities, learning and teaching interactions, materials and assessments. Redesigning and revamping the curricula become necessary as some learning and teaching activities cannot be executed online; thus, other platforms and strategies must be chosen and applied to give students the knowledge, exposure and experience that they need.

## 7. Conclusion

The objective of this chapter is to identify the roles of educators, especially at the NDUM during the COVID-19 outbreak. Two research questions have been answered using the case study and quantitative approaches to research. This chapter has presented data that lead to three major findings. First, despite being ready to teach online fully, some respondents at the NDUM were not able to distinguish between emergency remote teaching and online teaching. Based on the data, the respondents are unsure of the differences between the two; both adopt different strategies of teaching.

Second, based on the data too, the respondents opined that WhatsApp and MS Teams are two platforms and applications that they used the most and were the most effective employed during this time of crisis. Although there are no specific guidelines on what strategies and platforms that must be adopted, the respondents chose what were the most convenient to them. These options *may* and *may not* be effective for all students, and these may be investigated in the near future.

Third, there are two major roles of educators teaching during the COVID-19 pandemic, including educators' willingness to have an online presence and the ability to choose the best teaching and learning platforms and applications. Educators' online presence, either big or small, encourages and motivates students to actively participate during online learning sessions. Students know that they are not alone; there are peers as well on educators to support them. When educators have established this online presence, they become indirectly aware of the platforms and applications that could be beneficial and effective for the teaching and learning activities, online.

Future research may want to also focus on collecting opinions from a bigger population, across the nation, and may want to investigate the journey of educators at primary and secondary schools. Comparing what happened during the teaching processes at various institutions may help academics to improve their teaching strategies and allow academics to learn from one another. As the new normal in teaching and learning is here to stay, educators must brave the challenges that come in various forms and aspects; they must be prepared to adapt and adopt new concepts of teaching, whatever these might be!

## Conflict of interest

The author declares no conflict of interest.

## Notes/Thanks/Other declarations

The author thanks all survey respondents for their time and cooperation in completing the online survey, which is available at https://bit.ly/2Zaozjc.

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