Teachers' Perceptions of Emergency Remote Teaching During COVID-19 at Sultan Qaboos University, Oman

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Abstract:

The uncertain situation emerging from COVID-19 led to an unprecedented suspension of face-to-face classes and the adoption of emergency remote teaching (ERT) in higher education institutions (HEIs). However, ERT required specific skills on the part of the teachers. As higher education systems gradually revert to normalcy, it is vital to reflect on ERT practices. Hence, this study investigates, in retrospect, the experiences of the General Foundation Programme (GFP) teachers at Sultan Qaboos University (SQU) in Oman in conducting and adapting to ERT. The exploratory study uses an online questionnaire and the analysis is based on 102 teacher responses. The results of the quantitative data were analyzed and complemented with an extensive literature review. The findings can be grouped into six themes: teachers' awareness of ERT and online teaching, readiness to deliver ERT, course management, students' readiness, emotions in ERT, and effectiveness and future potential of remote teaching. The study suggests ways for HEIs to adapt to emergency teaching and learning and prepare for the effective implementation of online teaching. The paper provides insights into the challenges and opportunities associated with the emerging modalities of online teaching and informs decision and policy makers to develop a framework for their implementation. These findings have important implications for crisis management and the effective implementation of online teaching and learning in tertiary education. This study fills a gap in online teaching and learning research of the understudied context of a GFP in the Arab Gulf context.

Keywords: *COVID-19, emergency remote teaching, general foundation programme, higher education, Oman.*

Introduction

The World Health Organisation (WHO) officially declared COVID-19 as a pandemic on March 11, 2020, which led to the closure of schools and universities globally, acutely affecting educators, parents and more than 1.5 billion learners of all stages, including about 90% of university students (Bozkurt and Sharma, 2020; UNESCO, 2020; UNICEF, 2020; WHO, 2020; Williamson, Eynon and Potter, 2020). In the context of the Middle East and North Africa (MENA) region, this abrupt migration to online learning affected about 13 million university students across the 22 Arab states (Abdulla Al Ghurair Foundation for Education, 2020). Although most of the higher education institutions (HEIs) in the Arab region were not prepared to cope with these disruptions, Saudi Arabia, Jordan, the UAE, and Oman managed to

reduce the challenges to learning by introducing emergency remote teaching (ERT) (Audah, Capek and Patil, 2020), as did most HEIs worldwide.

Online Learning vs Emergency Remote Teaching

Online teaching and learning has been extensively researched over the past decades. According to Hodges et al. (2020), several research studies, models, theories, standards, and evaluation criteria have focused on quality online learning, teaching and course design. Effective online learning, which provides co-curricular engagement, social support and instructional support (Hodges et al., 2020), results from adopting a systematic model based on careful planning and development of the instructional design. However, this process is absent in ERT, which is a temporary shift of instructional delivery to an alternate delivery model due to a crisis or a disaster.

ERT thus provides temporary access to instruction and instructional support in a mode that is quick to set up and is reliably available during an emergency with the least possible resources and scant time (Hodges et al., 2020). In addition, it differs from standard online classes as it delivers materials, content, tasks, and activities designed initially for face-to-face (f2f) teaching (Bozkurt and Sharma, 2020; Mohmmed et al., 2020).

Online Learning in Omani Higher Education Institutions Prior to COVID-19

In the Omani HE context, e-learning dates back to 2001 with the introduction of the Learning Management System (LMS), whereby HEIs were provided with the required equipment and facilities and the Internet, Intranet links and email facilities (Al-Musaawi, 2007).

In 2001, Sultan Qaboos University (SQU) became the first higher education institution to adopt e-learning using WebCT, which was well received by both faculty and students (Al-Musawi and Abdelraheem, 2004). It approached e-learning as "an additional resource intended to enhance the experience of learning by supplementing lectures, applying virtual laboratory experiments and interacting with the curriculum" (Al-Hosni, 2016, p. 27). Since Fall 2001, the Centre for Preparatory Studies that offers the general foundation program (GFP) at SQU (formerly the Language Centre) has been at the forefront in offering blended learning in the form of online activities that complement f2f learning, starting with three courses and 815 users (Al-Musawi and Abdulrahhem, 2004). At present, it supplements all of its 45 courses through Moodle, which replaced WebCT in 2005.

Other Omani HEIs, too, had a similar situation in the pre-COVID-19 context. For example, most of the University of Technology and Applied Sciences (UTAS) teachers and students had generally not experienced online learning for lectures or exams although they used some form of an LMS as a tool for course-related activities (Ahmed, 2020). Since most HEIs in the country did not have a robust distance or online learning system to convert to, the sudden shift to online teaching forced them to adopt ERT.

Emergency Remote Teaching in Higher Education: Challenges

ERT is ingrained with a variety of challenges: technological ones include access to devices and internet connection (Outhwaite, 2020; Yusuf and Ahmad, 2020); pedagogical challenges encompass the need for interactive multimedia teaching materials to engage and sustain students' motivation, lack of a system to provide learner feedback and evaluation, lack of teachers' skills in using technology, and the need for training and guidelines for teachers and students (Mukhtar, Javed and Arooj, 2020; Thomas and Rodgers, 2020); and the social challenges entail lack of parents' support and a suitable home environment (Montacute, 2020; Doyle, 2020). Peters et al. (2020) state that students find it challenging to connect and interact with their peers and teachers because of the lack of facilities for remote learning. Zhang et al. (2020) identify several issues such as unstable and insufficient networks in some areas in China and crashes in teaching platforms due to overload and the use of f2f teaching material and resources directly for online teaching with minor

changes. Reimers and Schleicher (2020) conducted a large-scale study and reported the existence of a complex combination of institutional and contextual factors that influence the effectiveness of ERT.

Another aspect affected by the abrupt change in pedagogy is the teachers' emotional orientations. Miller (2020) reports that teachers' emotional and psychological aspects were affected by COVID-19. Moorhouse and Kohnke (2021) mention that teaching during ERT positively affected one group of teachers' motivations, categorized as thriving, while negatively affecting the other group, considered surviving. The negative perception could emanate from the fact that online learning entails specific problems (deficit of "live" "f2f" interaction) that may affect the quality and effectiveness of teaching and learning (Barnard-Ashton et al., 2017; Rensburg, 2018). On the other hand, the positive perception could be because of the support provided to individuals and institutions, such as advice, sharing tips and resources, guidelines and strategies (Archambault and Borup, 2020; Chiodini, 2020), which was confirmed by Naylor and Nyanjom (2020), who found out that the amount of institutional support teachers received helped them in coping with the demands of ERT.

Emergency Remote Teaching in GFP

The challenges of ERT have also been researched in the English as a Foreign Language (EFL) context. For example, Granados (2020) shows that EFL teachers find it more challenging to deal with ERT as body language, facial expressions, and context are more crucial in language teaching than content teaching. Research has been conducted in several Asian countries: China (Davies et al., 2020; Talidong, 2020), Japan (Nae, 2020), the Philippines (Lansangan, 2020) and Indonesia (Atmojo and Nugroho, 2020). Similarly, studies have also been reported in the MENA region: Oman (Naqvi and Zehra, 2020; Mohmmed et al., 2020), Saudi Arabia (Al Lily et al., 2020; Bin Dahmash, 2020), Bahrain (Al-Hattami, 2020) and Palestine (Farrah and al-Bakry, 2020). However, little research on ERT has explored the context of a General Foundation Programme (GFP) or a pre-sessional programme.

Teachers' Voices on ERT in the Omani Higher Education

Generally, there is insufficient research on how teachers in HEIs perceive ERT, and some of the available research is tangentially opposite. For example, Mohmmed et al. (2020) believe that Middle East countries are ready to deliver well-designed remote teaching and online learning. Similarly, a study conducted in Indonesia shows that teachers could manage ERT by developing modules for online teaching and making appropriate LMS choices (Ginting et al., 2021). In contrast, Schlesselman (2020) shows that teachers in the US were not ready or equipped to conduct ERT.

In the context of Omani HEIs context, most research on ERT focuses on describing the model adopted by the institution and the challenges faced during the shift (e.g. Osman, 2020) or investigating the impact of this transition on students (e.g. Ahmed, 2020, Cifuentes-Faura et al., 2021). Moreover, a few studies address the teachers' and students' roles in conducting ERT. Naqvi and Zehra (2020) studied teacher efficacy on using technology during ERT in Oman. Osman (2020) explored the effect of the crisis on the educational system in the College of Education (SQU) through content analysis of the documents and by considering students' perceptions. Mohmmed et al. (2020) investigated how ERT transformed the curriculum by exploring teachers' and students' views. In the GFP context, Al Damen (2020) examined the opinions of teachers and learners on the effect of electronic feedback during ERT, and the study reveals that some feedback methods were effective although the process is entrenched with certain challenges. Valsaraj et al. (2021) investigate the experiences of HE faculty members from four countries (Oman, UAE, India and Malaysia), focusing on the challenges and adaptation in the process of the enforced ERT. Themes are collectively discussed in the study (e.g. familiarity with online teaching, the effectiveness of ERT, university support);

however, nothing is particularly linked to the Omani HE context.

Therefore, the current study investigates how GFP teachers in an Omani HEI perceived ERT as they conducted and adapted it. The study attempts to fill a gap in the GFP ERT literature and contribute to the existing conflicting research on teachers' perceptions of ERT in HE.

Materials and Methods

Participants

In total, 102 teachers from Sultan Qaboos University, comprising about 240 multinational academic staff, participated in this study (around 44% sample size). Approximately 57% of the respondents were female, and 43% were male. The majority, 39.2%, fell into the 45-54 years old category, followed by 28.4% in the 35-44 years old category, 23.5% 55-66 years old, 6.9% 24-34 years old, and the remaining 2% were 65 or older. More than half of the respondents (58.8%) had 20 or more years of teaching experience, 22.5% had 15–19 years of teaching experience, 12.7% 10–14 years of teaching, 3.9% 5–9 years and the rest (2%) had 1-4 years of teaching. Thus, the respondents represented different age groups with a wide range of teaching experience, making the research results more credible and reliable.

Design, Instruments and Procedure

A survey questionnaire, a practical tool for investigating attitudes and perspectives, can be designed to provide both quantitative and qualitative data. By surveying a population sample, a questionnaire allows a researcher to make valid generalizations about that population (Creswell, 2009). Online or web surveys have been used since the 1990s in the social, political, communications and behavioural sciences; however, their popularity has tremendously grown, and their advantage has been highlighted in the context of the COVID-19 pandemic as they have made it both possible and feasible to collect data and conduct research from a distance (De Boni, 2020).

In this study, an online questionnaire was used to explore teachers' experiences as they conducted and adapted to ERT in response to COVID-19. The survey, constructed in English using Google Forms, began with background information relevant to ERT, including gender, age, years of teaching, the location where ERT was conducted, network and device(s) used, and the quality of the network. The second and main part of the questionnaire focused on the teachers' experiences and feelings about different areas of teaching and learning before, during and after ERT. Most of the closed-ended items were constructed as multiple-choice questions while the rest used verbal scales (not at all, to a small extent, to some extent, to a moderate extent, to a great extent, N/A) as they are easier to be processed than numerical scales. The questionnaire also employed an open-ended question to give the participants space to express their general opinion without being restricted to predetermined responses. Such a question could yield unexpected results that could enrich the research. However, this paper will focus only on the results of the quantitative part due to limited space.

For judgmental validation, the questionnaire was piloted among 6 teachers that represented the different departments of the same institution where the sample population was drawn. The feedback received was used to improve and finalize the tool. After obtaining ethical approval for the study, the questionnaire was sent out to all teachers in the institution via email. Tables, charts, and graphs for the quantitative data were generated using both Google Forms and MS Excel.

Results

The findings of the most important aspects are presented below.

Technological Readiness and Satisfaction of Internet Service

The respondents were teaching from different locations (Muscat governorate and out of Muscat governorate) but were generally content with their internet service (Figure 1). This
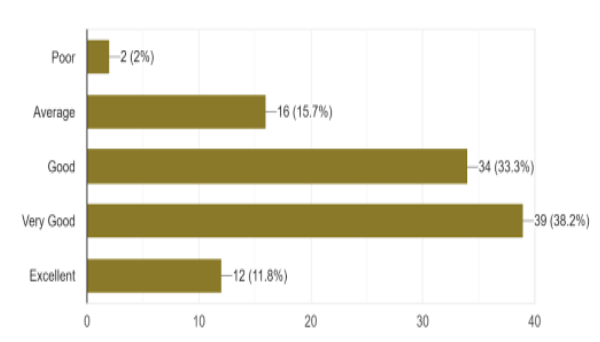
indicates that most were ready in terms of connectivity.

Figure 1. Respondents' Satisfaction of Internet Service during ERT

Teachers' Experience with ERT before the COVID-19 Crisis

Out of the 102 respondents, an overwhelming majority (69.6%) had not heard of ERT before starting the process compared to 27.5% who had heard of it; the remaining 2.9% were not sure (Figure 2).
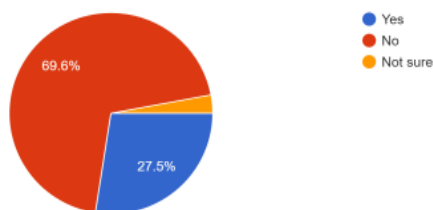

Figure 2. Respondent's Awareness of ERT before the Experience

In addition, 88.2% had not taught any course delivered entirely online whereas a mere 10.8% had done so (Figure 3).

Finally, in terms of technical skills before ERT, 48% felt they were competent, 30.4% beginner, 9.8% advanced, 7.8% novice, and only 3.9% expert (Figure 4).
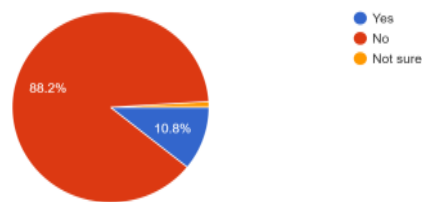

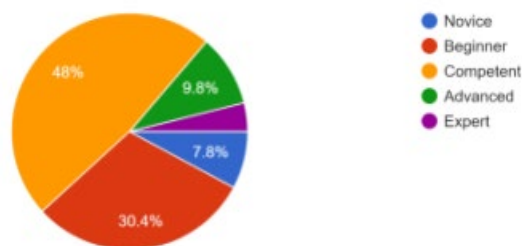**Figure 3. Respondents' Delivery of Completely Online Courses before ERT**

Figure 4. Respondents' Online Teaching Technical Skills before ERT

Teachers' Experience during ERT

All the respondents played an active role during the ERT process, with 96.1% being instructors, 18.6% course leaders, 8.8% Assessment Unit members, 2% e-learning committee members, and the remaining 5% included an HoD, project committee member, professional development (PD) committee member, student IT support team member and material developer. In terms of teaching, respondents taught different GFP and EAP courses.

The respondents used various online platforms and applications in their teaching, most notably WhatsApp, Google, Moodle, Zoom and Remind (Figure 5). It is worth mentioning that most of the respondents combined two or more of these methods.

The email was the most popular means to communicate with students for 86.3% of the respondents, followed by WhatsApp (76.5%). Other means of communication included apps

linked to Google [Classroom (18.6%), Meet (13.7%), Drive/Hangouts (4%)], Zoom (15.7%), Remind (14.7%), Big Blue Button (BBB) (6.9%), Moodle (4%), Edmodo (2%) and Screen casting apps (2%). See Figure 6.

For marking assignments, respondents also used a mix of online tools and styles, the most popular of which are Google Drive apps (56.9%), MS word (52%), auto marking on Moodle (51%) and mobile phone pictures (39.2%). Interestingly, some respondents (11.8%) reported resorting to the manual method of marking drafts on paper, scanning them and emailing them to students. See Figure 7.
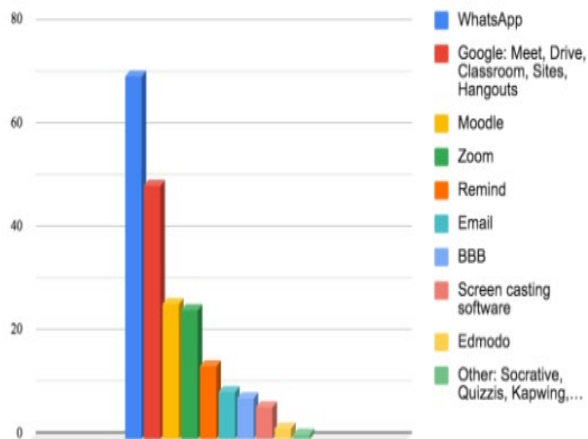

Figure 5. Platforms and Apps Respondents Used in Online Teaching during ERT
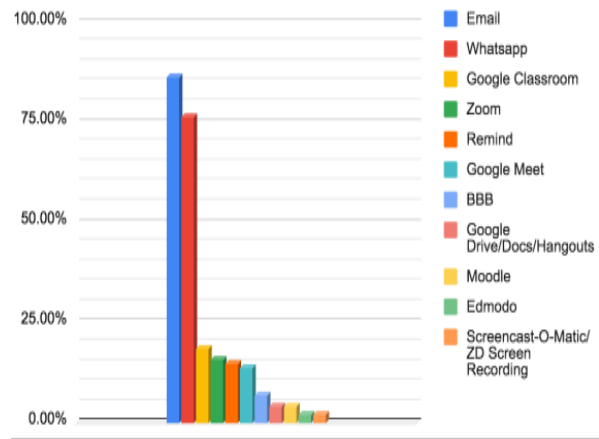
Figure 6. Platforms and Apps Respondents Used to Communicate with Students
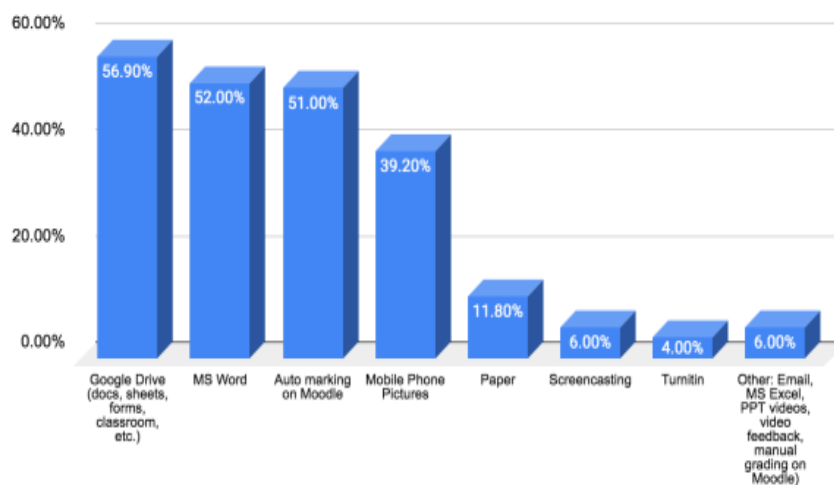
Figure 7. Styles/Tools Respondents Used to Mark Assignments During ERT

Respondents' Emotions Conducting ERT

The respondents described their feelings, both negative (worried, stressed, scared, overwhelmed, frustrated and lonely) and positive (proud, excited and confident), before, throughout, and at the end of their ERT experience. Table 1 provides a quick comparison of how respondents (in numbers) felt. There were mixed feelings, but many did not particularly associate ERT with emotions of

loneliness, boredom and fear as more than 50% indicated NA.

Table 1. Respondents' Emotions Doing ERT (by Number)

Feeling	Just Before ERT	During ERT	At the End	Throughout	NA
Bored	11	9	7	5	70
Excited	15	18	15	23	31
Stressed	25	30	7	24	16
Lonely	8	15	6	11	62
Frustrated	14	33	3	16	36
Confident	6	18	21	37	20
Overwhelmed	16	31	6	21	28
Proud	1	4	39	26	32
Scared	25	5	2	7	63
Worried	33	13	4	14	38

Respondents' Perception of Students during ERT

Teachers reported students' motivation, engagement, technical skills, independence, meeting deadlines, lower ability students, classroom management, and communication.

In general, motivation was not very high as 37.3% of the respondents said their students were motivated only to some extent and 19.6% to a moderate extent. This affected their engagement in class, ranging from a small extent for 26.5% of the respondents to a moderate extent for 27.5%. Additionally, the students had a problem working independently to some and a great extent, respectively, for an equal percentage of 25.5% while for 23.5% to a moderate extent.

Concerning class management, a significant issue was mixed-gender class discussions, which were impossible for 35.3% whereas for 38.2%, they were not applicable, perhaps because they had one-gender classes or discussions were not part of the class. Overall, monitoring students' work during ERT was cumbersome to a great extent for 35.3%, to some extent for 24.5% and to a moderate extent for 22.5% of the respondents.

Discussion

Based on the findings, teachers' perceptions of ERT can be classified into six themes:

Awareness of ERT and Online Teaching

Before engaging with ERT, the majority (70%) were not aware of ERT, and an overwhelming majority (88%) did not deliver a fully online course. Furthermore, respondents felt more worried and stressed before than during ERT. This raises concern about whether the teachers were emotionally and psychologically prepared enough to undertake remote teaching and whether they were provided with the required background information and support prior to engaging with it. Several studies (e.g. Bozkurt et al., 2020; Miller, 2020) have confirmed the emotional and psychological effects caused by the sudden migration to and demands of online teaching/ERT due to COVID-19.

Readiness to Deliver ERT

ERT is reported to be coupled with technological (Outhwaite, 2020; Yousef, 2020), pedagogical (Mukhtar et al. 2020; Thomas and Rodgers, 2020) and social challenges (Montacute, 2020; Doyle, 2020), which can affect the readiness of teachers. Since most teachers in this study conducted ERT from Muscat Governorate (i.e. the capital), they did not face significant internet issues. Moreover, these teachers were adequately equipped with devices (personal laptop, desktop, smartphones and tablets), which facilitated ERT delivery. This limited the technological challenges. Interestingly, most of the respondents (61.7%) had the required technical skills for teaching at the time of ERT implementation, which could

have reduced the suddenness of the transition into ERT. This also indicates that there were no significant pedagogical challenges. Nonetheless, a sizable percentage of 38.6% was still either beginner or novice. This implies upgrading teachers' technical knowledge and skills required for online teaching.

Regarding social challenges, the home environment was suitable for about three-quarters of the teachers, making teacher autonomy more effective in ERT. However, teachers had to spend longer working hours than in f2f teaching, which has also been revealed by major surveys conducted in other countries (e.g. Henebery, 2020; Austin-Smith, 2020).

Course Management

The GFP and EAP are well represented in this study, which provides a more comprehensive picture of the sample population. Course management is further classified into the course and classroom-related issues:

Course-Related

Since ERT is a temporary alternative delivery mode quick to set up using minimum resources without recreating a rigorous educational system (Bozkurt and Sharma, 2020; Hodges et al., 2020; Mohmmed et al. 2020), more than half of the respondents in this study were involved in material development for ERT although not being fully adopted. Despite the sudden shift, the findings show reasonable effort in adapting and developing teaching and testing materials. However, preparing materials was a highly demanding task for 43% of the teachers, but discussion on the course was effective and collaboration among teachers productive.

Classroom-Related

Teachers used various apps and tools to teach, mark assignments and communicate with students. Almost 72.5% of them found online tools and apps easy to use. This could be attributed to the fact that all teachers had already been using online apps years before the pandemic as the courses were complemented with an extensive blended learning mode by using Moodle. In addition, SQU's proactive role of buying extra space on Moodle and the use of

several other platforms like Google Suite or Workspace and BBB facilitated the change. Additionally, teachers on their own used additional apps such as Zoom, MS Teams, etc. SQU also encouraged teachers to simultaneously adopt synchronous and asynchronous modes during ERT, which eased the pressure. Therefore, this rich background of blended learning and SQU's support ensured the smooth transition from f2f to online teaching at the CPS. Nurse and de Miguel (2020) confirm that institutions with previous online teaching experience had a smoother transition.

Students' Readiness

As reported by teachers, the students appeared to be less prepared to cope with the shift to ERT, which affected their motivation, engagement, class discussions, independence, and willingness to meet deadlines. Some factors that may have triggered these issues could be linked to the fact that most of the students were GFP students, and when ERT was adopted, these students were still new to university academic life and system, thus had not had sufficient exposure to the use of online learning platforms, and had not developed adequate learner autonomy skills. In addition, students were not fully prepared for online learning in terms of technology (internet service, suitability of devices and technical skills). This situation made teachers' tasks difficult in communicating with students, motivating them, monitoring their work and managing classroom discussions.

Emotions in ERT

The respondents exhibited both positive and negative feelings before, during and after ERT. However, trends could be observed. Around 61%, 62%, and 69% of the respondents identified the feelings of being "lonely," "scared," and "bored," respectively, as N/A. This may be because of factors such as institutional support, availability of resources and teachers' preparedness, consistent with Naylor and Nyanjom (2020), who conclude that a dynamic relationship exists between the type of emotional response of the teachers and the amount of institutional support that they get. Another interesting trend is that teachers felt

'stressed' and "overwhelmed" either before, during or throughout ERT, which explains why most of them did not feel "lonely" or "bored." Furthermore, feelings of being "proud" and "confident" were reported to be highest, either throughout or at the end of ERT.

This range of emotions supports Bozkurt et al. (2020) findings that educators' emotions varied, as they had to switch to online teaching instantaneously, irrespective of their comfort level.

Effectiveness and Future Potential of ERT

An essential element in the effectiveness of the teaching-learning process is the achievement of learning outcomes (LOs). However, this study shows that only a quarter of the respondents met LOs 'to a great extent'. It is similarly reported in the study that surveyed 3,500 teachers from Australia and NZ, indicating a lack of teachers' self-reliance in addressing the learning needs of students during online teaching due to the pandemic (Henebery, 2020). Moreover, approximately 61% of the teachers in this study felt ERT was 'not effective at all' while 'not interesting at all' for around 41%.

In terms of personal achievement, teachers found ERT to be more rewarding as they gained experience in online teaching and improved their technical skills. This has probably made ERT a good experience (for around 45%). As a result, about 54% of teachers seemed open to incorporating more elements of online teaching and tools in their future practice, but training would be required, as requested by around 63%.

Nevertheless, it is difficult to infer if ERT positively affected the teachers' personal lives because the results are inconclusive due to varying responses.

Conclusion

During the initial stages of the COVID-19 pandemic, emergency remote teaching (ERT) ensured that regular teaching and learning continued undisrupted at almost all higher education institutions around the globe. However, this was ingrained with challenges for teachers and students alike, especially in countries where fully online courses were not common. The current study focused on teachers' perceptions to understand the complexities of the transition and implementation of ERT, as an immediate solution to the crisis, in a general foundation program at an Omani higher education institution. The teachers viewed ERT positively as they developed technical skills and gained experience in online teaching. The unanticipated pedagogical change in the middle of the semester proved to be a blessing in disguise for the professional development of teachers.

Understandably, careful planning cannot occur during a crisis. However, some recommendations can help higher education institutions better understand, adapt and successfully deliver teaching and learning processes during emergencies:

• Designing a set of guidelines and/or a risk management plan to address teachers' emotional and psychological preparedness in a crisis is vital. For example, raising the teachers' awareness and educating them through seminars, workshops, regular management communication, and support can help minimize the effects of a teacher's trial-and-error methods.

• Investing in training teachers in the use of educational technology and how to conduct and manage online classes should be an integral part of the continuous professional development of teachers since it is expected for the "digital revolution" to continue further and be widely adopted in HE.

• Ensuring the availability of appropriate state-of-the-art resources, both hardware and software, to deliver quality online education, be it a crisis or not.

• Revisiting and making necessary changes to teachers' workload conducive to online teaching since remote and f2f environments are pedagogically different.

• Empowering teachers through top-down and bottom-up approaches in preparing the curriculum, material and assessment, particularly for online learning. In addition, acknowledging

and using their expertise by involving them through adopting an active, collaborative and autonomous role in delivering the online curriculum should consequently lead to the continuous growth of both the teacher and the institution to deal with any crisis.

- Providing more orientation and training to students in online learning, e.g., using tools, rules of online classes, and independent learning, will facilitate the teachers' jobs and help achieve learning outcomes effectively.

- Researching aspects such as the use and effectiveness of social media tools, for example, WhatsApp, in online teaching and learning and the impact of online teaching on teachers' personal lives is recommended. Almost 70% of the respondents revealed the use of WhatsApp as a teaching tool. This could imply that teachers found it more comfortable, accessible, and easier to use.

However, the recommendations of this study are not limited to ERT and can provide insights into the challenges and opportunities associated with online teaching in general, which is currently an emerging norm in many higher education institutions. In addition, this study can inform decisions and policies to develop a framework for implementing different online teaching modalities.

Conflict of interests

There is no conflict of interest.

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