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Moroccan Higher Education in Times of Crisis: A Phenomenographical Analysis of Teachers Experiences with Emergency Remote Teaching

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ABSTRACT

With the COVID-19 pandemic crisis, Emergency Remote Teaching (ERT) has abruptly become the mainstream activity in higher education institutions globally. While, in such turbulent times, this mode of instruction has unarguably imposed itself as a lifeline for education continuity, serious concerns remain about faculty preparedness for this massive shift, especially in educational context where online teaching is still in its embryonic stage. This paper reports on a phenomenographical study examining Moroccan university teachers' experience with ERT and its impact and implications on their instructional quality and post-pandemic practice. Data were collected, using focus group discussions, from a purposive sample involving 36 university teachers from four higher education institutions. Despite some variance in the respondents' experiences, the findings clearly indicate that teachers were prematurely immersed in online teaching with very little institutional supportive action. Based on the data, teachers faced various and overwhelming challenges significantly hampering their overall online pedagogical responsiveness. Importantly, teachers' experience with ERT has not exposed their urgent need for professional development in the area of online delivery, but also triggered major changes in their mindset especially in relation to post-pandemic technological acceptance and use.

Keywords: Covid-19, higher education, emergency remote teaching, online experiences, post-pandemic practice

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1. Introduction

Following the WHO's classification of the COVID-19 as a global pandemic, the Moroccan authorities declared a nationwide state of health emergency as of March 16th, 2020. This has forced the entire education sector into remote modes of instruction until further notice. While this proactive measure was praised for containing the contagiousness of the deadly virus, the suddenness of the shift no time for Moroccan higher education institutions to conceive new ways to adapt to the new reality. As quick fixes of the situation, teachers were tasked with redesigning and adapting their syllabi to remote education modalities. In fact, while this instructional shift has imposed itself as a lifeline for educational continuity globally, many scholars believe that it constitutes a major challenge for teachers, especially those who lack the necessary techno-pedagogical skills (Koehler, Mishra & Cain, 2013). In this respect, Koehler and Farmer (2020) point out that effective online instruction is contingent upon teachers' mastery of all the technical and pedagogical aspects involved the use of online

instructional environments. Whereas developing these skills would normally require months of training and support (Hodges et al., 2020), the urgency of the situation did not allow for this level of preparedness. In fact, recent reports indicate that university teachers of all backgrounds and ages were left alone struggling with the demands of online teaching, often without proper technical support (Rapanta et al., 2020; Hodges et al., 2020).

Presently (mid-August, 2021), after more than 16 months of Emergency Remote Teaching (ERT henceforth), serious questions remain about Moroccan higher education faculty's preparedness to adapt to online teaching modalities. Nevertheless, to date, very little empirical research can be found on this topic in the Moroccan context. The few publically available studies have adopted quantitative perspectives, and most of them focused on students' experiences. This study is therefore an attempt to fill this gap by exploring how Moroccan university teachers experienced ERT and the extent to which this may have impacted the quality of their pedagogical practices (compared to pre-pandemic times) and influenced their post-pandemic practices. More specifically, the study attempted to answer the following research questions:

1. What has it been like for Moroccan university teachers to move their teaching online during the pandemic?
2. How, and to what extent, have Moroccan teachers managed to adjust to online teaching?
3. If, and in what ways, has the quality of teaching been impacted compared to pre-pandemic times?
4. What lessons were learnt from ERE, and what implications do they have on post-pandemic practices?

2. Review of the Literature:

2.1. Online Instruction: Upsides and Downsides

The debate surrounding the integration of technology in the education sphere has been around for quite some time. Thus, long before the COVID-19 crisis, advocates of educational technology associate online instruction with various benefits. Kim (2020), for example, believes that online education offers high levels of flexibility, reduces costs required to attend in-person classes, and accounts for increased enrolment and participation rates, especially in countries with low access and massification. Likewise, other scholars pointed out that online instruction is not only capable of providing learning opportunities for working adult (Yilmaz, 2019) but also has the potential to "foster a global knowledge society, international partnerships, and content sharing and regional collaboration among universities" (Amemado 2020, p.13). In terms of educational affordances, McLoughlin and Lee (2010) described the learning experiences accounted for by online platforms as "active, process based, anchored in and driven by learners' interests, and therefore have the potential to cultivate self-regulated, independent learning" (p.29). In support of this, Dhawan (2020) added that e-learning environments can help students customize their learning in a way that suits their needs, pace and learning styles which can in turn account for increased level of self-directed learning.

Despite all the heralded benefits associated with online instruction, many scholars believe that online instruction is faced by numerous pedagogical and institutional challenges. Pedagogy wise, Kebritchi et al. (2017), for example, noted that it requires teachers to change their pedagogical practices and redesigning content in congruence with online modalities, which can be very overwhelming for many teachers. These scholars further argue that is it equally challenging for institutions to put in place adequate technological infrastructure and provide the support needed to encourage teachers and learners to use educational technology.

Regarding quality, Cojocariu et al. (2014) cautioned that with the current lack of standards for quality control in e-resources development and e-content delivery, teachers' preparedness and ability to compensate for the lack of physical presence become critical elements for the success of online teaching. Similarly, Mohamedbhai (2020) emphasized that for online learning to be effective, teaching materials must be prepared by professional instructional designers, lecturers must be pedagogically trained for delivering the programs, and students must be equally exposed to the pedagogy of online learning. Interestingly, however, Favale et al. (2020) believe that irrespective of teachers' expertise, the quality of online instruction may be jeopardized by other extraneous variables such as students' low readiness for online instruction and the absence human touch between the instructors and the learner.

2.2. Emergency Remote Teaching in Moroccan Higher Education

Emergency remote teaching as a concept was first proposed by Hodges et al. (2020) to capture the difference between online instruction and the education currently provided via other alternative modes of delivery, as a result of the COVID-19 crisis. As explained by these scholars, while the former is usually based on a rigorous process of instructional design, ERT is more of a temporary crisis management response forced by the sudden suspension of in-person-instruction. In this respect, Rahiem (2020) explains that the primary objective of ERT is to provide immediate access to education during an emergency rather than re-creating a stable educational environment. Similarly, Reznikova et al. (2020) see ERT as a kind of a 'shock therapy', thanks to which an educational system was not paralyzed.

In the Moroccan education context, switching to ERT started as of March 16, 2020, forcing teachers in all levels to step outside of the comfort zone and seek alternative ways of adapting to the new reality. While remote teaching was and still is the only practical option capable of ensuring educational continuity in such turbulent times, recent reports indicate that Moroccan higher education was not ready for such a massive shift. Ech-Chorfy (2020), for example, explained that the faculty's effort to move online was hampered by a number of challenges related to lack of infrastructure, online teaching experience and IT skills. In another recent report by the ADEA (2020) (Association for the Development of Education in Africa), it was clearly indicated that switching to distance education has brought new overwhelming challenges for Moroccan educators, including lack of time for adequate preparation, equity concerns, weak quality assurance in assessments and little or ineffective monitoring and evaluation. More specifically, in one of the few studies that quantitatively addressed ERT in Morocco, Bouali et al. (2020) reported that educators' lack of preparedness failed to guarantee a healthier switch to remote teaching modalities, noting that teachers' unfamiliarity with technological devices resulted in delays of course delivery communication problems between students and course facilitators.

3. Research Method

For the aims of this study, a phenomenographical research design was judged the most suitable. This kind of research rests on the assumption that phenomena are best understood by "learning how other people experience and lived through them" (Marton & Booth, 1997, p. 111). In contrast to phenomenology, which focuses on clarifying the structure and meaning of a phenomenon (Giorgi, 2012), phenomenography aims at describing the different ways a group of people understand a phenomenon (Marton, 1994). In this respect, Sjostorm and Dahlgren (2002) explain that the epistemological assumption of phenomenography is that despite the differences in the way individuals make sense of phenomena, these differences can be described, interpreted and understood by others. Phenomenography was adopted in

various studies to research students' and teachers' conceptions in higher education research (Harris, 2008; Parisio, 2011; Mpungose, 2020; Rahiem, 2020). In this study, it is used to gain insights into the different aspects of Moroccan university language teachers' experience with ERT. In so doing, semi-structured focus group interviews were used to collect data for this study. Pointed out by Fraenkel et al. (2012), this data collection technique enables the researcher to probe for details as participants self-disclose their opinions, perceptions, and thoughts by providing "additional comments beyond what they originally had to say once they hear the other responses" (p. 457).

Data were collected form a total sample of 36 university teachers belonging to the Faculties of Arts and Human sciences in four Moroccan public (open-access) universities, namely Moulay Ismail university (N= 12), Sidi Mohamed Ben Abdallah University (N= 7), Mohamed V university, (N=11) and Ibn Zohr University (N=6). The participants were purposefully sampled based on two criteria: (1) they all had to be English language practitioners, and (2) to have had complete shift to online modes of delivery. It is worth noting herein that some regulated-access institutions adopted hybrid modes of teaching, starting from the October, 2020. As for the data collection process, it is important to note that the researcher sent a participation request to an initial sample of 48 and only 36 were approved. After consenting to take part in the study, the participants were then conveniently divided into 6 groups. As for their demographic profile, there were 19 males and 16 females and their age ranges between 38 and 55. All the five focus group discussions were conducted using the Google Meet application. The entire data collection process took place between January and February 2021 and the meetings lasted between 90 and 125 minutes. To ensure a maximum level of focus and comprehensiveness, the participants were invited to share their stories by responding to some guiding questions relating to the major issues addressed in this study, namely teachers' transitional experience, level of adjustment and patterns of engagement, their evaluation the quality of their practices, lessons learnt and their implications on future practice.

As specified by experts in the field of qualitative research methodology (Marton, 1994; Corbin & Strauss, 1990; Creswell, 2009), a phenomenographic analysis was carried out in four major interrelated stages. In the first stage, the transcripts were read line by line and 'cleaned' on the basis of relevance to the issue under study. The respondents' responses, as expressed in their own words, were then marked and sorted out based on their relevance to the interview questions. The second stage involved identifying the predominant experiences among the participants and classifying them based on their similarities and differences. During this phase, as the focus was on exploring the meanings that teachers were trying to convey, the data analysis went beyond the literal meaning of words. This allowed the researcher to merge utterances that express the same meaning or describe the same experiences. In the third stage, the focus shifted to identifying the participants' non-dominant ways of understanding and making sense of their experience, which were also grouped based on their similarities/ differences and frequency of occurrence. In the fourth stage, the researcher moved into sorting out utterances into conceptual categories, both dominant and non-dominant, and formulating categories of description and establishing associations and connections between them. This process involved continuous arrangement, adjustment and re-adjustment of conceptual categories. To avoid any potential bias, the logical associations made between these categories were constantly checked against the original transcripts.

4. Results

Following a question-answer analysis pattern, this section presents the major findings from this study. It is divided into four major subsections each of which deals with a specific research question and its emerging findings. Thus, while the first explores teachers' initial experience with the transition to ERT, the second part analyses data gauging their levels of adjustment to online modes of delivery, with a special focus on technological preferences and use patterns. Data on teachers' conception of the impact ERT may have had on the quality of their teaching is presented in the third part. Finally, the fourth part provides a detailed account of the lessons teachers may have learnt from their experiences along with their implications on post-pandemic pedagogical practices.

4.1. What Has It Been Like for Moroccan Teachers to Switch to ERT?

In a response to the above question, most of the participants admitted that neither they nor their institutions were adequately prepared for a complete shift to online modes of instruction. Based on their responses, their attempts to switch to online modes of delivery were hampered by numerous pedagogical, infrastructural and social challenges. Pedagogy wise, and as will be discussed in detail in the fourth part, most of the respondents admitted being novice online instructors and thus lacking the necessary skills to digitalize their courses. In addition to deficient techno-pedagogical skills, most of the respondents attributed much of the hardship they experienced to the absence of proper technological infrastructure. Thus, insufficient internet connectivity and limited access to technology were often cited as recurrent issues, especially during the early phases of the transition. This was, for instance, articulated by participant 4: "besides the slow and unreliable internet, we waited for more than three weeks to have online spaces created for us in the university platform". Likewise, participant 14 highlighted how connectivity and access problems greatly affected enrolment rates among his students: "…nearly half of my students were unreachable during the lockdown… some of them had issues accessing the platform with their institutional emails".

Besides the above challenges, many participants felt that the suddenness of the switch added to their struggle. Thus, as participant 15 puts it, "…the problem is that it happened suddenly and didn't give teachers time to adapt…teaching online should normally be gradual so that we can learn the needed skills. Interestingly, the suddenness of the switch pushed many teachers to learn by doing. This was particularly the case for participant 30: "it felt like I was sailing as I was building the ship… knowing that my students are waiting, I invested a lot of time to learn how to post activities and manage assignments and everything". Moreover, many participants described how the absence of proper institutional support greatly added to their hardship. In fact, as can be seen in the extracted arguments below, nearly half of the respondents emphasized that institutional supportive action was either lacking altogether or unresponsive to their needs at best:

> *We were left alone to struggle especially during the first 4 weeks. I personally sought help from other colleagues in the IT department… we were asked to use the tools that the university makes available for us without any training on how to use them (P 23).*

> *Our university had a Moodle platform but not all teachers knew how to use it. They sent us a PDF with some steps to follow but wasn't helpful at all. Plus, it requires institutional emails but not all students had them (P 31).*

> *What we needed was pedagogical support but they got was some technical tips. All the webinars and trainings that were organized by my institution focused on tech issues and none of them offered pedagogical solutions (P 6).*

Interestingly, all the participants, without exception, described how online teaching has greatly added to their responsibilities and increased their workload compared to pre-pandemic times. As such participant 2 reported, "I teach four modules. And when students submit their assignments I spend days correcting them and providing individual feedback…it is too much work". Similarly, participant 17 commented on her experience with course adjustment and digitalization: "the book I was using for my literary class is not freely available online, So, I had to scan it with in app in my phone, it took me a lot time and effort". Likewise, other participants described their struggle with technological appropriateness: "I spent days searching for the right online platform for my public speaking class. Because of internet issues, we used flip grid, a tool for sharing short videos" (P15). Interestingly, at least one third of the respondents explained how their experience was negatively affected by some atmospheric issues related to the absence of proper and designated work environments. This was, for example, described by participant 25, "I live in a busy and noisy street so I have to stay up late to record my lessons or wake up very early so to avoid car horns and the like". Some respondents also described how this problem also affected their students:

> *Many of my students were reluctant to put on their camera or microphone because they not have good places for study. I remember one of my students was trying to ask a question but one of her family members entered the room and started talking to her. She signed out and never showed up 2 weeks later after I contacted her (P16)*

4.2. How, and to What Extent, Have Moroccan Teachers Managed to Adjust to Online Teaching?

When asked to describe their experience with online teaching modalities, nearly half of the participants reported being novice online instructors. In their struggle to provide their lessons online, these teachers reported undergoing high levels of stress, hardship and loss of direction. As such, participant 9 reported: "moving online was very stressful and confusing for me. We were told to use the university platform but we didn't know how to use it". Likewise, participant 7 added, "honestly, I did not do any teaching in the first four weeks". Teaching remotely was a new world for me, so I just waited for things to go back to normal". Interestingly, however, teachers with previous experience with technology reported having had an easier time adapting to online modes of delivery. As such participant 24 commented, "it [the transition] was not a big problem for me. I was using Edmodo [a course management system] before the pandemic to blend my courses. So I ended up using it as the main platform for the rest of the term". Similarly, participant 34 explained how his prior use of Schoology (another course managmennt system) helped him adapt quickly to ERE: "things were much easier for me…I have been using Schoology with my students before COVID. So when we moved online we continued using it".

As for the type of technology adopted, various arguments were put forward in favor of instant messaging applications (predominantly Whats App) including convenience, affordability and feedback:

> *I used Whats App because my students have it on their phones…I used to send instructions, lessons, videos, audios and PDFs. you see if students have received and read the messages (P10)*

> *I always had a Whats App group for my classes mainly for quick communication. But during lockdown I did most of the teaching through it: sharing resources, giving instructions* and explaining things… Plus, the discussion could be either voice or texts (P36)

Additionally, at least one third of the participants reported having occasionally relied on synchronous environments such as Google Meet, Facebook live, Google Classroom, Microsoft Teams and Zoom. These tools were often praised for accounting for increased interaction and satisfaction. Thus, participant 34, for example, described how his use of Google Meet improved his students' experience: "after I started using Google Meet for my classes. I noticed that my students have become more committed and participate more". Similarly, participant 26 reported higher level of satisfaction after switching to synchronous teaching. As she put it, "my students were more satisfied after I started using Google classroom...They liked the fact that they can get immediate answers for their questions and inquire about things they don't understand". Nevertheless, the data has shown how the use of these tools was often coupled with serious connectivity problems and equity concerns pushing many teachers to refrain from using them. The quotes below are examples of many similar arguments:

I tried Google meet but it didn't work. I had very slow internet and was continuously cut off… In one of the cases, I overheard students' complaining about my connection (P36).

Many of my students were unable to attend my Zoom lessons so I ended up recording lessons and posting them on YouTube (P11).

I tried video conferencing twice but only few students were able to attend. So, I felt that it was excluding those who did not have the means to be with us (P5)

These issues pushed one third of participants to try course management systems as a more practical alternative. This was particularly the case for participant 20: "I tried Microsoft teams but connectivity issues made it a total failure. So I tried Edmodo and I am still using today". Interestingly, these tools were often praised for their various affordances. Likewise, participant 12 added: "It [Schoology] is very good for both synchronous and asynchronous threaded discussions. I mean all the questions and answers will be there to be accessed all the time". Additionally, participant 21 described how her use of Edmodo significantly increased interaction among her students:

My students asked me for feedback on their assignments so I created a class in Edmodo. I encouraged them to ask questions and answer each other's questions. I was impressed by the level of interaction that was going on.

4.3. Has the Quality of Teaching Been Impacted During ERT, Compared to Pre-Pandemic Times?

When asked about the impact ERT might have had on the quality of their instruction compared to pre-pandemic times, the participants unanimously stressed that face-to-face teaching is irreplaceable, and that it almost impossible to provide the same level of quality. Thus, as emphasized by participant 20, "physical interaction will always be the core of teaching… online teaching environments cannot account for the richness of human interaction". In fact, most of the participants believe that technology alone, however advanced, can and will never effectively replace face-to face instruction. The following quote is representative of this belief: "in face to face classes can see if the students have understood or not. They can see it in their eyes, this is impossible online. So, they will mistakenly assume that everything is understood" (P10). Additionally, many respondents noted that online teaching is ill-suited for courses that require human interaction:

E-teaching did not work for my public speaking and debating class. It was meant to be practical! You know! Working on students' stage fright and presentation skills… but it ended being completely theoretical (P33)

I found it really hard to work with my spoken English class online. I mean how you can work on students' pronunciation if you can't hear them (P17)

Indeed, many respondents repeatedly emphasized that the unplanned transition to ERT has jeopardized the quality of students learning. This was, for instance, articulated by participant 27: "I feel that the quality of students learning has been compromised… What was happening should not be called teaching. I don't think students learnt anything at all". Similarly, participant 29 raised concerns about the quality of the content-based practices adopted by many teachers noting that "mere posting and sharing PDFs should not be called online teaching. Most teachers were doing exactly this…Students need feedback and enough talk opportunities". More importantly, when further asked about syllabi coverage, nearly half of the respondents reported coverage rates between 40% to 50%. Thus, as reported by participant 18, "I personally covered less than half of the syllabus in one of the modules and less than 40% in the other. But I am not sure if students grasped it or not". Most importantly, all the respondents, without exception, raised serious concerns about the impact limited technological access may have had on students' retention, especially those who come from poor socio-economic backgrounds. Participant 2 emphasized that "poor students were the most affected by the switch… many of them do not have internet, so they were just left them behind".

In addition to the above arguments, many other participants voiced their concerns about students' readiness to learn remotely. Some of them noted that some of their students have not yet developed a sense of maturity that will enable them to assume responsibility for their learning. This was, for example, emphasized by participant 1: "let's not forgets that many of our students, especially in S1 and S2, are still adolescents and may not yet be ready for uncontrolled learning environments". Likewise, participant 29 confirmed: "one of the problems of online teaching is that you can't control what students are doing or the sites they are consulting". Other participants posited that technological acceptance may stand in the way of online teaching. This was articulated by one of the participants: "some students are just not cut for online learning. They are more comfortable with the conventional ways of teaching" (P.19)

A particular insolvable problem that was consistently brought up during the discussions is academic dishonesty, particularly during online examinations. The majority of teachers in the sample agreed that with the absence of proctoring software, cheating in online examination will always be a major issue. The following quote is an example of many similar arguments: "Apart from technical issues, students' academic honesty cannot be guaranteed. I mean how you make sure that it is your students that it is behind the screen?" (P3). In fact, many teachers reported having found dishonest behaviors during the correction of their students' assignments. This was, for example, described by participant 23: "I know the level of my student's level but I was so shocked by her performance. I run plagiarism test but it turned negative. So, someone else must have taken the test instead of her". Participant 12, in his turn, pointed out that academic dishonesty has been and will continue to be one of the biggest challenges in online teaching:

Assessment is real challenge in distance education. I mean you never know what the students are doing and what sites they are consulting. With the absence of proper software to monitor students' online behavior, academic honesty will never be guaranteed (P12).

Importantly, however, most of the participants felt that the quality of their instruction has substantially improved as time went by. Pedagogy-wise, most of the participants reported

moving away from their initial content-based approaches into more interactive and engaging pedagogical practices. This was, for example, reported by participant 35: "the quality of teaching got better with time…in the beginning I was sending readings with some guiding questions... Now my teaching is more interactive". Besides, participant 4 described how recording lectures had a positive impact on her students' satisfaction:

> *I feel that the quality of teaching improved after I started recording lectures. My students felt very positive about them. The views increased enormously and there were a lot of messages and likes (P4)*

4.4. What Lessons Were Learnt from ERE, And How Can They Inform Post-Pandemic Practices?

In response to the above question, the majority of the respondents described how the crisis exposed their urgent need for professional development in the area of online delivery. Based on their responses, their needs fall into three main categories: Technical, pedagogical and communicative. Technical needs include "…helping with creating, modifying visual content and managing video lectures" (P6). Pedagogical needs include "…trainings on how tailor coursework for online environments… new ideas on how to increase students' engagement in asynchronous learning environments" (P32, P28) in addition to "trainings on how to manage online examinations and students' online behavior" (P4). As for the communicative needs, they are centered on "managing students' online presence, providing feedback and enhancing student-student communication and interaction" (P8). Interestingly, some participants reported having already started professional development initiatives. This was for example reported by participant 18: "I had the chance to participate in the TESOL 2021 Convention and I learnt a great deal of tricks. Teachers all over the world shared their best practices"

In addition to increasing levels of professional awareness, some teachers' highlighted how their mandatory experimentation with technology crisis has enhanced their IT skills. Thus, as participant 31 put it: "thanks to the crisis, we have learnt to use technology…The question now is no more if but how to use technology". Other respondents described how that the crisis has normalized the use of technology among educators: "I am sure that this crisis will accelerate the process of technological acceptance even among the people who were once against it" (P14). Other participants believe that a hybrid education will be ideal. This was, for example, suggested by participant 35, "I believe that an education that combines both technology and face-to- face education will be ideal…. blended learning can solve a lot of issues and enhance the quality of our practice".

At the personal level, there was a general consensus among the participants that their experience with ERT made them more flexible and considerate of students' needs and problems. Participant 19, for example, commented on his experience: "knowing that many of my students do not have access to the internet and those who have access have bandwidth issues pushed me to be very flexible in assignment submission deadlines". Other respondents commented on how they have become more responsive to his students' needs. Thus, as reported by participant 11, "many of my students were overwhelmed with the readings, so I summarized the readings to ease things for them… they like it so much". More specifically, participant 9 admitted having reduced the course load to help students cope with the situation: "I personally reduced the number of readings and provided students with some guiding questions to help them with exam preparation".

5. Discussion

Though this study does not attempt to make generalizable conclusions, its findings clearly suggest that Moroccan educators sampled in this study were prematurely pushed into remote modes of delivery. Based on earlier analysis of the data, most of them admitted being novice online instructors and thus lacking the necessary skills and experience to manage the shift and its challenges. Thus, while online access and infrastructure are commonly considered as prerequisites for shifting to online instruction (Marinoni, Land & Jensen, 2020), the respondents unanimously reported having faced serious infrastructural issues associated with insufficient internet bandwidth and limited technological access. Pedagogy-wise, the respondents lacked the necessary skills to effectively design and deliver their lessons via online tools. With the absence of proper institutional support, many of them were compelled to learn in action which significantly added to their hardship and increased their workloads. These findings strongly align with those reported in many studies. Melody, Tucker and Green (2020), for example, described how many teachers in their sample faced major issues communicating digitally with students, designing engaging online material and assessing students' retention especially during the early phases of the shift. In similar another study, Reznikova (2020) pointed out that switching to online modes of teaching added pronounced workloads to teachers who were already struggling to balance teaching and family obligations.

As for teachers' levels of adjustment, teachers' previous use of technology was found to have a significant positive impact on their overall online experience. Thus, it was found that those who had previously blended their teaching were less overwhelmed by the switch and had an easier time adapting to ERT. Conversely, novice online teachers reported having invested enormous time and efforts trying to adapt to their new reality. Regarding technological preferences, it was revealed that Moroccan teachers relied on popular platforms in varying degrees. In fact, instant messaging applications (predominantly Whats App and Facebook messenger) were the most commonly used among the respondents. The use of these tools was often justified by obvious benefits such as convenience, affordability, sharing of different types of material (audio, video and text) along with ease of use. Strikingly similar findings were reported by Bachiri and Sahli (2020) who found that most of the respondents in their survey relied on Whats App and Facebook in their teaching.

As was previously discussed, at least one third of the participants reported having tried synchronous teaching tools (namely Google Meet, Google Classroom, Microsoft Teams and Zoom). Despite the several benefits associated with their use, especially in terms of increased engagement and interaction, their use was often reported to be coupled with troubling connectivity issues and low enrolment rates. In one of the few studies investigating this issue in the Moroccan context, Ech-Chorfy (2020) reported lower than 20% uptake rate among their sample. Similarly, in a recent report on the impact of COVID 19 on higher education around the world, Marinoni, Land and Jensen (2020) concluded that connectivity and access problems significantly impacted uptake levels of these tools especially in developing countries. As was mentioned earlier, the impracticality of these platforms pushed many Moroccan teachers to try course management systems (e.g Edomodo and Schoology). In this respect, researchers such as Braun et al. (2020) and Mpungose (2020) pointed out that ERT has triggered a major increase in the use CMS globally. Rapanta et al. (2020) attributes the high uptake of these tools to their educational affordances. Thus, for them in addition to their usefulness in determining course access rates, frequency and duration of interaction and assignment submissions, these tools make is easy for teachers to identify and contact inactive students and solve misunderstandings and comprehension problems.

Quality-wise, the results conclusively indicate that the essence of teaching has been significantly affected, especially during the early phases of ERT. Thus, as reported earlier, while many respondents noted that their students had a partial university life with syllabus coverage rates no more than 50%, others reported very low enrolment rates, especially among those who come from poor socio-economic backgrounds. These students were consistently reported to be completely cut off and left behind which raises serious concerns about educational inequalities in online environments. Indeed, many scholars argue that shifting to online modes of teaching will benefit those who can afford technology and leave behind the less fortunate ones (Ferri & Guzzo 2020; Outhwaite, 2020). More importantly, these results are highly consistent with Al Lily's (2020) finding that unplanned transition to ERT has largely jeopardized the quality of students learning. According to him, online teaching has turned out to be merely a matter of recording lectures and submitting assignments and homework through an online system**,** which, for him, does not meet the standards of distance education.

Additionally, there was a general agreement among the participants that regardless of technological advancement, it is impossible to provide or guarantee the same quality of face-to face instruction in online environments. In line with this, Mpungose (2020) argued that despite the current discourse demanding the use of e-learning, face to-face learning is still the cornerstone of every learning institution. Indeed, many respondents highlighted the ways in which external factors such as low motivation, learning styles, and students' irresponsible behavior may influence the quality of online instruction. Arrosagaray (2019), for example, found that lack of speech activity had a negative impact on students' motivation. In addition to these arguments, some respondents stressed that online education can be ill-suited for subjects that require human interaction. In line with this argument, scholars like Soon (2020, 4) believe that higher education should not strive to be a completely online activity emphasizing that "ultimately, the interaction with fellow students is a defining experience of university life".

One of the most interesting findings from this study is the degree to which ERT has marked the respondents' professional and personal lives and pushed them to rethink their current and future practice. At the professional level, the crisis triggered a major increase in the respondents' awareness of their professional development needs. As was previously discussed, these include technical, pedagogical and communicative needs. As for the first, teachers voiced their need for trainings that address the different technical aspects of course digitalization and management. Pedagogical needs are focused on how to adjust coursework, increase students' engagement, and be responsive to their needs. Communicative needs are associated with managing online presence, reaching out to students and providing feedback. In fact, strikingly similar needs were reported in other studies conducted elsewhere in the world (Braun et al., 2020; Schleicher, 2020, Dhawan, 2020; Bachiri & Sahli, 2020). Braun et al. (2020), for example, argued that teachers need training that empowers them to identify and choose the most suitable applications and apply them in meaningful ways.

Importantly, the results have also uncovered a major increase in teachers' professional development endeavors. As was discussed earlier, being forced to find new ways to operate and sustain students' learning, many participants started engaging in professional development initiatives. In this regard, Braun et al. (2020) noted that thanks to the crisis, professional development is increasingly taking place online noting that teachers are increasingly able to pursue their training at any time and from any place, fitting professional training more flexibly into their schedule. Interestingly, many participants believe that the shift has to a large extent normalized online instruction. In this regard, scholars like Dhawan

(2020) believe that the role online teaching has played during the crisis largely increased its legitimacy and guaranteed its future in the education sphere. At the personal level, the respondents described how their experience made them more flexible and considerate of students' needs and problems. These results converge with those reported by Mcdaniel et al. 2020 who reported that during the lookdown many of their respondents admitted lightening the volume of their courses and changing the format of assignments to ease things for their students.

6. Conclusions and Implications

Being still in the middle of the crisis and with doubt remaining about when things will go back to normalcy, it may sound premature to draw conclusions on how Moroccan teachers have responded to ERT and lived through it. Nevertheless, the findings from this study clearly indicate that Moroccan higher education in general and teachers in particular were not prepared for the shift. Teachers reported having faced enormous challenges associated with the lack of infrastructure, limited online experience, and unresponsive institutional support. However, as ERT continues to be the mainstream activity for the third term, it has become imperative for Moroccan higher education stakeholders to study the various short and long-term implications of the ERT and re-design a sustainable education model in which no one is left behind. This can be done by putting in place the needed technological infrastructure capable of ensuring affordable and equitable access to appropriate technology for all teachers and students. Most importantly, envisioning a post-crisis higher education must trigger a sense of urgency among the Moroccan educational stakeholder not only to mitigate the possible negative outcomes of ERT, but also insure that we are properly prepared for the next hit. In so doing, universities should urgently provide faculty members with personalized and educationally responsive trainings. Meanwhile, faculty members should be encouraged to move away from the rather skeptical attitudes towards technological relevance and focus more on how to maximize its quality for their students. Pedagogy-wise instructors need to critically reflect on their practices (what worked and what did not and why), renew their skills and seek improved mechanisms for online delivery. Research-wise, scholarly endeavors should shift from merely listing the perks of educational technologies to finding working solutions to their cons, particularly those relating to online examinations challenges.

7. Limitations and Future Research

While this study has attempted to unravel the ways in which Moroccan higher education faculty have experienced ERT it does not presume to be exhaustive or limitation free. Given the purposive sampling adopted in this study and the relatively small number of the sample size involved, its findings cannot be generalizable to all Moroccan university teachers. More research involving more teachers, different disciplines, levels of education and higher education institutions should therefore be initiated. Most importantly, providing a comprehensive picture of the situation entails gaining insights into the experiences and perspectives of all the relevant education stakeholders including lecturers, students, administrators and tech providers. Their viewpoints will certainly yield more detailed results and hence result in an in-depth understanding of the phenomenon.

References

Al Lily, A. E., Ismail, A. F., Abunasser, F. M., & Alhajhoj Alqahtani, R. H. (2020). Distance education as a response to pandemics: Coronavirus and Arab culture. *Technology in Society*, *63*, 101317. https://doi.org/10.1016/j.techsoc.2020.101317

Amemado, D., (2020). COVID-19: An Unexpected and Unusual Driver to Online Education. *International Higher Education,* Special issue 102, 12-14. Retrieved from https://www.internationalhighereducation.net/en/handbuch/gliederung/#/Gliederungsebene/811/No.-102-Special-Issue-2020

Arrosagaray, M., González-Peiteado, M., Pino-Juste, M. & Rodríguez-López, B. (2019). A comparative study of Spanish adult students' attitudes to ICT in classroom, blended and distance language learning modes. *Computers & Education, 134* (1), 31-40. Elsevier Ltd. Retrieved September 8, 2021 from https://doi.org/10.1016/j.compedu.2019.01.016.

Association for the Development of Education in Africa (ADEA), (2020). Delivering education at home in African member states amid the Covid-19 pandemic: Country status report. Retrieved March 3rd, 2021 from https://www.adeanet.org/en/publications/delivering-education-home-african- member-states-amid-covid-19-pandemic-country-status

Auvinen, A.M., (2010). The Challenge of Quality in Peer-produced e-Learning Content. In M, F. Paulsen & A, Szűcs (2010) (eds.), *User Generated Content Assessment in Learning Enhancing Transparency and Quality of Peer Production Emerging Educational Technologies and Digital Assessment Methods.* European Distance and E-Learning Network.

Bachiri, H., & Sahli, R. (2020). The Need of Distance Learning in the Wake of COVID-19 in Morocco: Teachers' Attitudes and Challenges in the English Foreign Language Instruction. *International Journal of Language and Literary Studies*, *2*(3), 240–256. https://doi.org/10.36892/ijlls.v2i3.326

Bouali, H., Okereke. M., Adebisi, Y.A, & Lucero-Prisno III, D.E. (2020). Impact of COVID-19 on Pharmacy Education. *SciMedicine Journal, 2*,(3),, 240-256, DOI: https://doi.org/10.28991/SciMedJ-2020-02-SI-8

Braun, A., März, A., Mertens, F., Nisser, A., (2020). Rethinking education in the digital age. *European Parliamentary Research Service EPRS*, Brussels © European Union. doi:10.2861/84330. Retrieved from
https://www.europarl.europa.eu/RegData/etudes/STUD/2020/641528/EPRS_STU(2020)641528_EN.pdf

Cojocariu, V.-M., Lazar, I., Nedeff, V., & Lazar, G. (2014). SWOT analysis of e-learning educational services from the perspective of their beneficiaries. *Procedia-Social and Behavioral Sciences,* 116, 1999–2003, https://doi.org/10.1016/j.sbspro.2014.01.510

Corbin, J., & Strauss, A. (1990). Grounded Theory Research: Procedures, Cannons and Evaluative Criteria. *Qualitative Sociology, 13* (1), 3-21. https://doi.org/10.1007/BF00988593

Creswell, J.W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approache*s (3rd ed.). Thousand Oaks, CA: Sage

Dhawan, S. (2020). Online Learning: A Panacea in the Time of COVID-19 Crisis. *Journal of Educational Technology Systems,* 49 (1) 5–22. DOI: https://doi.org/10.1177/0047239520934018

Ech-Chorfy, F. (2020). COVID-19 Impact on Education Sector: Measure and Strategies, Morocco as a case Study. *International Research Journal on Advanced Science Hub (IRJASH), 2*(6), 21-25. https://doi.org/10.47392/irjash.2020.32

Favale, T., Soro, F., Trevisan, M., Drago, I., & Mellia, M. (2020). Campus traffic and eLearning during COVID-19 pandemic. *Computer Networks*, 176, 107290. https://doi.org/10.1016/j.comnet.2020.107290

Ferri, F., Grifoni, P., & Guzzo, T. (2020). Online Learning and Emergency Remote Teaching: Opportunities and Challenges in Emergency Situations. *Societies*, *10*(4), 86. MDPI AG. https://doi.org/10.3390/soc10040086

Fraenkel, J. R., Wallen, N.E. & Hyun, H.H. (2012). *How to Design and Evaluate Research in Education* (8th ed). The McGraw-Hill Companies, Inc., New York

Giorgi, A. (2012). The descriptive phenomenological psychological method. In P.M. Camic, J.E. Rhodes & Yardley (Eds), Q*ualitative Research in Psychology: Expanding Perspectives in Methodology and Design* (pp. 243-273). American Psychological Association. https://doi.org/10.1163/156916212X632934

Harris, L. R. (2008). A phenomenographic investigation of teacher conceptions of student engagement in learning. *Australian Educational Researcher, 35*(1), 57-79. https://doi.org/10.1007/BF03216875

Hibbi, F. Abdoun, O., & El Khati, H. (2020). Coronavirus Pandemic in Morocco: Measuring the Impact of Containment and Improving the Learning Process in Higher Education. International *Journal of Information and Education Technology,* (11) 1, 30-34 doi: https://doi.org/10.18178/ijiet.2021.11.1.1485

Hodges, C.B., Moore, S., Lockee, B., Trust, T., & Bond, M.A. (2020). The Difference Between Emergency Remote Teaching and Online Learning. *Educational Review*. DOI:10.13140/RG.2.2.31848.70401

Kebritchi, M., Lipschuetz, A., & Santiague, L. (2017). Issues and Challenges for Teaching Successful Online Courses in Higher Education: *A Literature Review. Journal of Educational Technology Systems*, 46(1), 4–29. https://doi.org/10.1177/0047239516661713

Kim, J . (2020). Learning and Teaching Online During Covid-19: Experiences of Student Teachers in an Early Childhood Education Practicum. *IJEC* 52, 145–158. https://doi.org/10.1007/s13158-020-00272-6

Koehler, A.A., Farmer, T., (2020). Preparing for eLearning Using Digital Learning Plans. In Ferdig, R.E., Baumgartner, E., Hartshorne, R., Kaplan-Rakowski, R. & Mouza, C. (Eds). (2020). Teaching, Technology, and Teacher Education during the COVID-19 Pandemic: Stories from the Field. Association for the Advancement of Computing in Education (AACE). Retrieved June 15, 2021 from https://www.learntechlib.org/p/216903/

Koehler, M. J., Mishra, P., & Cain, W. (2013). What is Technological Pedagogical Content Knowledge (TPACK)? *Journal of Education*, *193*(3), 13–19. https://doi.org/10.1177/002205741319300303

Marinoni, G., Land H.V., &, Jensen, T. (2020). The Impact of Covid 19 on Higher education around the wolrd: IAU global Survey report. *International Higher Education, 102 (*Special issue 102), 7-9. Retrieved from https://www.internationalhighereducation.net/en/handbuch/gliederung/#/Gliederungsebene/811/No.-102-Special-Issue-2020

Marton, F. (1994). Phenomenography. In Torsten Husén & T. N. Postlethwaite. (Eds.), *The International Encyclopedia of Education* (Vol. 8, pp. 4424 - 4429): Pergamon Press.

Marton, F., & Booth, S. (1997). *Learning and Awareness*. New Jersey: Lawerence Erlbaum Associates.

McDaniel, C., Suffern, C. Joo, J & Alamuddin, R. (2020). Student and Faculty Experiences with Emergency Remote Learning in Spring 2020: Insights from a Small Exploratory Study. *Ithaka S+R* DOI: https://doi.org/10.18665/sr.314276.

McLoughlin, C. & Lee, M.J.W. (2010). Personalised and self-regulated learning in the Web 2.0 era: International exemplars of innovative pedagogy using social software.

Australasian Journal of EducationalTechnology, 26(1), 28-43. Retrieved May 4, 2021 from https://doi.org/10.14742/ajet.1100.

Mohamedbha, G. (2020). COVID-19: What Consequences for Higher Education in Africa? *International Higher Education, 102* (Special issue 102), 30-32. Retrieved from https://www.internationalhighereducation.net/en/handbuch/gliederung/#/Gliederungsebene/811/No.-102-Special-Issue-2020

Mpungose, C.B. (2020) Emergent transition from face-to-face to online learning in a South African University in the context of the Coronavirus pandemic. *Humanities and Social sciences and communication*s. (2020) 7:113. https://doi.org/10.1057/s41599-020-00603-x

Outhwaite, L. (2020). Inequalities in Resources in the Home Learning Environment (No. 2); Centre for Education Policy and Equalising Opportunities, UCL Institute of Education: London, UK, 2020. Retrieved May, 2021, from https://repec-cepeo.ucl.ac.uk/cepeob/cepeobn2.pdf

Parisio, M. L. (2011). Engaging students in learning through online discussion: A phenomenographic study. In G. Williams, P. Statham, N. Brown & B. Cleland (Eds.), *Changing Demands, Changing Directions.* Proceedings ascilite Hobart 2011. (pp.989-993).

Rahiem, M.D.H. (2020). The Emergency Remote Learning Experience of University Students in Indonesia amidst the COVID-19 Crisis. *International Journal of Learning, Teaching and Educational Research Vol. 19*, (6), 1-26, https://doi.org/10.26803/ijlter.19.6.1

Rapanta, C., Botturi, L., Goodyear, P. et al.. (2020). Online University Teaching During and After the Covid-19 Crisis: Refocusing Teacher Presence and Learning Activity. *Postdigit Sci Educ* 2**,** 923–945 . https://doi.org/10.1007/s42438-020-00155-y

Reznikova, A., Kudinova T., Patuykova, R., Olomskaya N., & Dyshekova, O. (2020). The «pandemic» period of the education system crisis: peculiarities of the modern telecommunication systems and messenger's implementation as the alternative didactic platforms for the linguistic disciplines teaching. *E3S Web of Conferences 210, 1803.* https://doi.org/10.1051/e3sconf/202021018037

Schleicher, A. (2020). The impact of COVID-19 on education - Insights from Education at a Glance 2020. *OCED*, 2020. Retrieved from https://www.oecd.org/education/the-impact-of-covid-19-on-education-insights-education-at-a-glance-2020.pdf

Sjöström, B., & Dahlgren, L. O. (2002). Applying phenomenography in nursing research. *Journal of Advanced Nursing*, *40(*3), 339-345. https://doi.org/10.1046/j.1365-2648.2002.02375.x

Soon, C. T. (2020) E-learning and Higher Education in the Pre- and Post-COVID-19 Situation. *Higher Education In Southeast Asia and Beyond,* Special issue: How is COVID-19 impacting higher education? 8, 1-4. Retrieved from https://headfoundation.org/wp-content/uploads/2020/11/HESB-8-COVID19_2020.pdf

Tucker, M. H., Green, A.M. (2020). Virtual Professional Learning for In-Service Teachers to Support Teaching and Learning in Online Environments. In Ferdig, R.E.,Baumgartner, E., Hartshorne, R., Kaplan-Rakowski, R. & Mouza, C. (Eds). (2020). Teaching, Technology, and Teacher Education During the COVID-19 Pandemic: Stories from the Field. As sociation for the Advancement of Computing in Education (AACE). Retrieved June 15, 2021 from https://www.learntechlib.org/p/216903/