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# Emergency Remote Teaching: Teachers' Perceptions on Challenges and Contributions to Professional Development

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**Emergency Remote Teaching: Teachers' Perceptions on Challenges and Contributions to Professional Development**

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## Dedication

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**Abstract**

The Coronavirus pandemic in 2020 had a great impact on educational systems all around the world, due to the massive school closures in 138 countries, and the sudden shift to virtual modalities of teaching. This period, which has been called by academics as Emergency Remote Teaching (ERT), varied in duration in each country, being Mexico one the countries that remained the longest under this modality for education. Particularly, the Benemérita Universidad Autónoma de Puebla (BUAP) remained under this modality for two whole academic years. For this reason, this institution represents an interesting case for research, since previous studies have suggested that, long term, once the initial shock of ERT has been overcome, this experience might represent a boon for institutional development.

Moreover, experts around the world have insisted in the latent likelihood that humanity faces more and more emergency situations, such as de outbreak of new epidemics/pandemics, natural disasters, meteorological events, among others.

Therefore, this study, which takes place at the Faculty of Languages at BUAP, intends to get insights on the challenges and contributions presented by this long ERT period, the institutional actions undertaken to overcome it, and the perceived institutional readiness for future emergency scenarios. For its realization, a sequential mixed method was used, in order to obtain quantifying and explanatory results. The quantitative data was obtained through a questionnaire applied to teachers of the bachelors programs of the Faculty, and the qualitative data was collected via interviews to the administrators of the Faculty.

Results showed that, while ERT presented many challenges for the institution and all its stakeholders, as reported in previous literature, it also brought many contributions to the development of the institution and teachers' professional development. In addition, institutional response during the emergency, in general, has been perceived as adequate. Finally, many indicators of institutional readiness have been observed, and the general perception of participants is that the institution is technologically and infrastructurally ready to face future emergencies.

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# Chapter 1: Introduction

Besides the consequences of the outbreak of the COVID-19 pandemic for the world's healthcare systems and economy, we all witnessed its great impact on many other aspects of life, such as education. Indeed, by March 2020, nearly 80% of the world's student population was affected by the school and university closures in 138 countries (UNESCO IITE, 2020). In Mexico, it was on March 16th 2020 when it was announced in the Diario official de la Federación (2020) the suspension of face-to-face classes for all institutions belonging to the Secretaría de Educación Pública (SEP), and in the case of our institution, in a communiqué issued on the same date, the University of Puebla announces as well the suspension of in-situ lessons (BUAP, 2020).

These closures represented a sudden shift to distance education, meaning a great challenge for education stakeholders all around the globe (see for example Crawford et al., 2020; Juárez-Díaz & Perales, 2021; Khlaif et al., 2021; Nilsberth et al., 2021). However, the measures implemented and resources available to cope with this adverse situation were very unequal between countries, being developing economies the ones who struggled the most and were in more disadvantage due to factors such as digital inequity (Crawford, et al., 2020; Khlaif et al., 2021). Here in Mexico, for instance, the pandemic caught us in a situation where only 56.4% of the households all over the country had access to an internet connection and only the 44.3 % owned a computer (INEGI, 2020a). This digital gap –and other factors such as lack of teacher instruction– represented an obstacle for implementing ICT-mediated instruction efficiently in this emergency context (Juárez-Díaz & Perales, 2021).

Indeed, this transition to ICT-mediated instruction could not be properly mastered as it was sudden and unplanned (Said & Bin, 2021), unlike carefully designed online courses, which typically take 3-6 months to design, develop and deliver to students (Khlaif et al., 2021). Considering this, experts claim that what educational systems were implementing in the virtual classroom during the contingency was not properly online learning, and point out the risks of calling it so, as online learning already carries the stigma

of being of lower quality than face-to-face learning even though research has proven otherwise (Hodges et al, 2020; Craig, 2020; Gardner, 2020). In this sense, in order to clearly differentiate both learning situations, Hodges et al. (2020) proposed the term "Emergency Remote Teaching" (ERT) to refer to the distance instructional delivery implemented under emergencies such as the COVID-19 pandemic, and this term has been adopted by many scholars.

This Emergency Remote Teaching had a great impact internationally, and it is important to fully understand the challenges and contributions it has had on language professionals, because as Weidlich and Kalz (2021) point out, the consequences will likely be felt for years. Hence, this study aims to contribute to the understanding of the impact this ERT period had in our institution (the faculty of languages of BUAP) within the Mexican context.

### 1.1 Purpose of the study

The purpose of this study is to explore teachers' perceptions not only on the challenges faced during the different stages of this ERT period −which was particularly long in our institution−, but also on the possible contributions of it in their professional development. In the same vein, it aims to know what the teachers' and administrators' opinions regarding the role of the institution are in providing suitable conditions to face ERT scenarios.

Indeed, as stated before, the necessary sudden application of ERT brought many challenges for education stakeholders, especially in developing countries like ours, where the digital gap and inequalities were an obstacle for performing online learning successfully. However, some studies have suggested that ERT has also brought some advantages, such as giving opportunities to teachers to experiment and implement new ideas, integrate international projects, acquire knowledge and confidence towards online-based teaching, raise awareness on the importance of training courses, helping students become autonomous or making governments and institutions invest more in educational platforms (Almutairi et al., 2021; Werner & Küplüce, 2021; Weidlich & Kalz, 2021; Said & Bin, 2021; Juárez-Díaz & Perales, 2021; Sevy-Biloon, 2021). For example, here in Mexico, according to the Instituto Nacional de Estadística y Geografía (INEGI), the population using Internet in the country increased in 72% in 2020 (FORBES MEXICO,

2021) and the pandemic accelerated the use of ICT by 10 years (UNAM, 2021), meaning a gain for the reduction of the digital gap in terms of access and use technology.

### 1.2 Rationale

In this section, the rationale of this study, will be presented, taking into account the findings of previous research on the subject.

Due to the massive impact of the pandemic worldwide, research in ERT became one of the trending topics in ELT and education in general, generating a large number of studies on the matter. In this vein, this study seeks to contribute to the literature by giving some insights into the evolution of ERT practices and perceptions when implemented for long periods.

Certainly, until now, many studies have been carried out focusing on experiences and challenges faced by education stakeholders (Crawford, et al., 2020; Khlaif et al. 2021; Nilsberth et al. 2021; Said & Bin, 2021). Particularly, there is a study carried out at BUAP that explores 26 teachers and 32 ELT students' experiences and emotions during the first moths of ERT (Juárez-Díaz & Perales, 2021). Nevertheless, considering the evolution of the situation, a study following the development of those experiences and challenges through different stages of ERT, as well as the learnings and opportunities this event has brough, would be of great interest for the field. In fact, as Juarez-Diaz and Perales (2021) mention, by the time they were writing their manuscript, institutions had begun to provide ERT support. This fact certainly should have influenced the experiences of teachers for the following stages of ERT as well as given them opportunities to improve their teaching practice, contributing to their professional development.

Additionnally, the particularly long period in which this institution has worked under the ERT modality makes of it an interesting context of study. Indeed, although the implementation of ERT was worldwide, many countries returned to their 'normal' face-to-face modalities long before we did. In Europe, for example, the average of school closures was 17 weeks (Nilsberth et al. 2021), while Mexico, until March 2022, was one of 23 countries that had not completely reopened schools (UNICEF, 2022). In fact, in the specific case of the BUAP, the staggered return to classrooms started on February 2022, being in a different date for each faculty –for the Faculty of Languages it was on February 14$^{th}$–

(Flores, 2022). Before that, not even one student was attending face-to-face classes, and until August 2022 only about 50% of the courses were delivered face-to-face. This significant variation in lenght compared to other contexts might be reflected in teachers' perceptions about ERT,particularly in the perceived learnings and growth opportunities gained from it. In fact, Weidlich and Kalz (2021) state:

> *It is readily apparent that ERT due to Covid19 has been a bane for students and educators around the world. Long-term, however, it may turn out to be a boon for the development of HE (Higher Education) institutions, forcing their hand in developing institutional readiness for on-line based methods of learning and teaching. (p.21*)

This statement suggests that when carried out for longer periods, ERT can become an advantage for education development; hence, stakeholders perceptions may turn more positive and focused on gains the longer they have experienced ERT. Therefore, the current study can give some insights into the evolution of ERT practices and perceptions in an institution that worked under this modality for two whole years, a much longer period compared with those where the implementation was only for a couple of months, and in some cases did not even pass the initial shock and adaptation period.

Finally, it is worth noting that the pandemic not only gave us an opportunity to rethink the future of schooling (Nilsberth et al., 2021), but also taught us the importance to be prepared for times of crisis. Indeed, school stakeholders need to be aware that ERT events may happen again in the future (Juárez-Díaz & Perales, 2021), due to natural disasters, economic crises, wars or even new pandemics. It is then of vital importance to consciously reflect on this ERT experience in terms of what we can learn from it, what we can improve for the future and what institutions can/should do for being prepared for an eventually upcoming ERT scenario, and research on these aspects, such as this one, may be of great interest for the educational community.

### 1.3 Context

The context of this study is the Faculty of Languages at BUAP, in central Mexico. At the faculty, different kinds of programs are delivered, such as B.A programs (LEI for English and LEF for French), a Masters' program (MEI), languages courses for the BUAP community (CELE), language courses for the general public (CEU), among others. For this study, we are focusing on experiences from teachers of the B.A programs, that is to say,

LEI and LEF. These two programs were originally fully face-to-face, making the change to ERT significant, as it implied moving the whole program to a completely different mode of delivery, without having the time to prepare the suitable conditions for it. Also, there were included opinions of the administrators, namely the director, the academic secretary and the coordinators of LEI and LEF, about the role played by the institution in providing the conditions to face this (and future) ERT scenario, in order to compare them with teachers' perceptions and obtain a more complete perspective of the phenomenon.

Another relevant aspect of the context of this study is that the University is in the fourth biggest city of Mexico (INEGI, 2020). Considering that in big cities people have more access to the internet than in rural areas, and the fact that among people with college studies up to 96.4% connect to the network (INEGI, 2020a), it is probable that the digital gap among students is not as significant as in other contexts. Moreover, being the BUAP one of the biggest and most renowned Universities in our country, it benefits from an important budget, allowing to provide its community with digital tools useful for the distant learning that otherwise would not be possibly afforded by teachers and students. This situation possibly allows to notice not only the challenges related with the access to technology, but also the challenges related with the use of it, and with the attitudes, behavior, and performance of stakeholders.

Regarding the situational context of this study, it is important to mention that the research was done in the first half of the year 2023, that is, almost a year after the returning to face-to-face classes. Even though this might have an impact on the stability of perceptions in the participants' minds (Clifton & Carrasco, 2018), it also allows to see the phenomenon in a more retrospective and general way.

### 1.4 Research questions

Given the purpose of our study, the research questions this study addresses are the following:

1. How was the Emergency Remote Teaching period perceived by teachers and administrators?
2. What are the perceived challenges and contributions to professional development of ERT?

3. What were the reported institutional actions to face ERT?
4. What is the perceived institutional readiness to face future ERT scenarios among teachers and administrators?

**1.5 Methods used**

To carry out the study and try to respond to the research questions, a mixed method research was conducted. The three following instruments of data collection were used to get an in-depth understanding of the case (Creswell, Qualitative Inquiry & Research Design. Choosing Among Five Approaches, 2013):

- Questionnaire: The questionnaire served for eliciting some information about experiences, opinions and the actions taken by teachers during the ERT (Taylor-Powell & Marshall, 1998), as well as the challenges they faced. It provided us with some data we can tabulate and discuss. The questionnaire was applied to teachers of the LEI and LEF programs who taught during all the semesters ERT lasted, from spring 2020 to fall 2021 periods.
- Semi-structured interviews with selected teachers: These interviews intended to get a deeper understanding of the responses obtained through the previous questionnaire.
- Semi-structured interviews to administrators: These were intended to know the point of view of the institutional side about the institutional participation during this period and their perceptions regarding the institutional readiness to face new emergency scenarios.

All the instruments were designed in the mother tongue of most participants (i.e Spanish). This is firstly, because some of the LEF teachers do not speak English in a proficient level, but it also has the objective of accessing to participants' inner voice and let them speak their minds in a more natural way (Zacharias, 2016), which allow us to obtain more complete and relevant information about their perceptions, particularly during the interviews, where they could express freely. With the data obtained through these instruments, we do a triangulation; present and discuss the results; and make conclusions from them.

## 1.6 Conclusion

This chapter presented the general topic this paper addresses, which is the ERT, and its relevance for the language teaching field of research. We highlighted the importance of reflecting on educational practices during this emergency period for the development of the field and pointed out the features of our context which make it relevant and worth of study. Additionally, the purpose of this research work was made clear, which is to know how teachers perceived this ERT period, with its challenges and contributions, as well as knowing the perceived institutional readiness to face new emergency scenarios among teachers and administrative staff. Finally, an overview of the methodology used for this study was presented.

The next chapter will address the relevant literature and previous studies about ERT, in order to have a stand of departure for our research.

# Chapter II: Literature review

This chapter presents the literature review concerning the main issues on which this study is founded. First, a discussion around the concept of Emergency Remote Teaching (ERT) is guided, providing some insights on the origin of the term –and the important distinction with other terminologies related to distance teaching, the historical emergency scenarios and the challenges and contributions of this experience reported in previous studies. Then, a review of literature about professional development in ELT is presented. Finally, it will be discussed the role of teachers' perceptions in education and research.

## 2.1 Emergency Remote Teaching

With the outbreak of the COVID-19 pandemic, the education systems around the globe were frapped by school and university closures in 138 countries, affecting almost 80% of the world's student population (UNESCO IITE, 2020). This situation forced the institutions to transition their normal face-to-face courses to virtual classrooms in a rush, with almost no preparation at all. Certainly, even if the pandemic started spreading around the time of the spring-break, and many institutions began preparing themselves for online instructions to face the rest of the semester by getting students off earlier (Gardner, 2020), two weeks would never be sufficient to adapt a whole program in a different modality. Moreover, the uncertainty and lack of experience in this unprecedented situation led many to think that the emergency would only extend for a couple of weeks, as seen for example in the announcement of the Mexican government establishing the suspension of classes only until the 17th of April (Diario Oficial de la Federación, 2020), probably making teachers' –and institutions'– first efforts to adapt to the new online modality less engaged since thought unnecessary.

While schools were first adapting to the new modality, media around the world started reporting and claiming an 'online learning revolution' or some generic synonym (Craig, 2020 and Barbour et al., 2020). Seeing this, some academics responded by arguing that what was happening was not on-line learning (see for example Craig, 2020 and Gardner, 2020) and after debating in social media the terminology that should be used, the term 'emergency remote teaching' came up as a common alternative among the

community, as reported by Hodges et al, (2020) in late march. This term expanded and was well accepted among researchers and professionals. However, many of them continued using other terminology, as seen in Bond et al.'s work (2021), in which they collected 256 journal articles about the subject from which only 15 of them (5.3%) used the term 'Emergency Remote Teaching' – plus two additional works that used 'Emergency Remote Online Learning–, being the most popular terminologies 'Online learning (for 58), 'e-learning' (52), 'distance learning'(50), and 'on line teaching' (33).

This overuse of terms such as online learning for when students are not attending school is highly problematic, according to Barbour et al. (2020), since "online learning will become a politicized term that can take on any number of meanings depending on the argument someone wants to advance" (p.1). Moreover, "for education professionals who've spent significant time trying to promote online learning as a viable, sustainable method of teaching and learning, making that distinction is critical" (Manfuso, 2020, para.6), since the confusion with this sudden, unprepared shift to online modality by many institutions could seal the perception of it as a weak option. Indeed, despite research showing otherwise, online learning already carries a stigma of not attaining the same quality as face-to-face learning (Hodges et al., 2020).

### *2.1.1 Online learning vs Emergency Remote Teaching*

In effect, despite the stigma carried by online learning of not being of enough quality, previous studies, including those with hybrid modalities, have demonstrated that it can be as effective as face-to-face learning, even suggesting some benefits over the latter (Martyn, 2003; Chingos & Schwerdt, 2015; Hughes et al., 2015; and Bachelor, 2019). In Chingos and Schwerdt's study (2015), for example, no evidence of negative effect of virtual classroom was found, and on the contrary, it was suggested a higher level of productivity when compared with the funding per-pupil in face-to-face courses, producing similar outcomes with a 10% lower cost. In Hughes et al.'s study (2015), when comparing success rates of 9 to 12 grade students in online and face-to face courses, 9-11 grade students were more likely to obtain a C grade or superior in online courses, whether they be general or credit recovery courses. Also, most groups of students (black, Hispanic, low income, special education, English learners) were more likely to succeed in online courses. As for

Bachelor's research (2019), when comparing the performance of students in face-to-face, blended and online modalities in oral and written tests, the results showed that online learners performed better in the oral test and the ones in the blended modality got better results in the written exam, leaving face-to-face modality learners behind. Finally, in Martyn's paper (2003), even if the modality under study is called 'Hybrid online', there were only two in-site sessions: the first one for the course orientation and the last one to closure the course and present the final exam, making safe to say that all the effective instruction occurred online. The conclusions of her study showed great acceptance of the course by students and good rates of participation and commitment.

Now, having stated that online courses might be as effective as face-to-face ones (or even more), it is time to point out some characteristics that make online learning different from ERT:

First, according to Barbour et al. (2020), the planning and preparation for an online course takes from three to six months, taking in some cases a full school year. In this sense, the difference is immediately evident, as for the sudden nature of the contingency, teachers and institutions only had, in the best-case scenario, a couple of weeks to adapt their courses.

Furthermore, while regular online teachers have previous training on technological skills and online pedagogy, and students have also training on how to conduct their studies using the digital tools, in the case of ERT, studies have shown that, the great majority of teachers and students had little or no previous training (Al-Abri & Mydin, 2021; Juárez-Díaz & Perales, 2021; Saqlain, 2021; and Sevy-Biloon, 2021).

In addition, whereas in effective online education a well-built ecosystem of learner and teacher support is required (Hodges et al., 2020) and courses are accessible to all learners (Shisley, 2020), during the COVID-19 ERT, in the countries where closures were mandated, many students, especially from low-income or rural households, were excluded from online learning alternatives due to not having access to the internet at home, being this share in a range from 15% in Western Europe and North America up to 80% in sub-Saharan Africa. Moreover, having access to the internet is not enough to have access to online learning, as many households lack of computers or connected devices to guarantee the connection for all members of the family (Giannini, 2020) .

Regarding the variety and quality of the courses, in online education there is a wide range of activities, instructional materials, assessment strategies and support services as well as course evaluations to make the necessary improvements. In contrast, in ERT scenarios, the activities, materials and assessment strategies are planned for face-to-face interactions, therefore, when quickly moving and adapting to online modalities they are limited and often ineffective. Additionally, support services are often unavailable for online settings and an evaluation is not possible due to the unanticipated circumstances (Shisley, 2020)

Finally, it should be noted that, as some studies have suggested, learner autonomy is essential for students' success in online learning environments (Honarzad & Rassaei, 2019; Işık & Balçıkanlı, 2020; and Sujannah, Cahyono, & Astuti, 2020). In this sense, while in carefully planned online education most students are older and mature, and have (or should have) mastered self-discipline and autonomy, in ERT there is a great diversity among students, and teachers may find lack of maturity and self-discipline in many of them who are not prepared for online learning (Shisley, 2020).

Taking into consideration all the previous differences, Emergency Remote Teaching is then defined by Hodges et al., (2020) as:

> *A temporary shift of instructional delivery to an alternate delivery mode due to crisis circumstances. It involves the use of fully remote teaching solutions for instruction or education that would otherwise be delivered face-to-face or as blended or hybrid courses and that will return to that format once the crisis or emergency has abated. The primary objective in these circumstances is not to re-create a robust educational ecosystem but rather to provide temporary access to instruction and instructional supports in a manner that is quick to set up and is reliably available during an emergency or crisis. (Emergency Remote Teaching section para. 1)*

It is worth noting that the definition refers to 'fully remote teaching solutions' and not to 'fully online solutions'. Indeed, depending on the contexts, ERT can also be implemented (or complemented) by the means of less technological resources such as printed learning materials, tv programs, radio broadcasts, among others, as seen in the next sections of this review.

### 2.2 Emergency scenarios

Although the concept of Emergency Remote Teaching has appeared recently among scholars after the impact of the pandemic on the global education systems, the scenarios it

describes in which education has been forced to adapt temporarily to digital/remote modalities due to different crisis are not new, though in previous times it happened only at local scales. In this section, previous literature about how schools and education stakeholders managed past ERT scenarios is reviewed to see the impact it had on education. Additionally, the importance of being prepared for future emergency scenarios according scholars' opinions will be discussed.

The different scenarios are presented in three groups according to the kind of crisis/emergency they are based on. These groups are: a) Health emergencies (Ebola outbreak), b) War zones, and c) natural disasters and weather related emergencies.

### *2.2.1 Health emergencies (Ebola outbreak in sub-Saharian Africa)*

During the 2014 Ebola outbreak in West Africa, the impact of the crisis in education was such that around 5 million children lost nearly a year of education due to school closures in Guinea, Sierra Leone and Liberia, the most affected countries (ACAPS, 2016). In fact, evidence suggests that education was not prioritized during the crisis. For instance, according to a report on the response to the outbreak by UNICEF (2017), only 11% of the UNICEF's budget for Ebola was spent on education, a considerably smaller percentage than the one invested, for example, in health (37%); and UNICEF education programs did not fully operate until 2015, six months after the Level 3 emergency was declared. Besides, teachers were redirected to other activities related to the Ebola response, such as sharing information and educating communities about the disease; later, when they returned to their original jobs, they were rejected because of the fear of Ebola.

In a region of the world where even nowadays the access to the internet is very limited, and at the time of the outbreak only the 13% of the population had access to it (Worldbank, 2022), it is not surprising that evidence of the use of online or screen based technologies as a support for ERT be limited or even null. However, lower-tech solutions were implemented across all affected countries with some demonstrated impact (Hallgarten, 2020). For instance, radio stations were supported by the UNICEF to broadcast learning programs, reaching about 1 million children (UNICEF, 2017).

Indeed, in Guinea, twenty-one radio stations broadcasted general education programs as well as Ebola Awareness information (Global Ebola Response, 2015). In

Liberia, the radio program 'Advancing Youth' that addressed mostly young adults who dropped out of school, decided to broadcast their lessons to help their students continue building their literacy skills in those difficult times, with such a success that the Education Development Center decided to work with the Ministry of Education to develop radio-based content also for children in 1st, 2nd and 3rd grades (EDC, 2014). Finally, Hallgarten (2020) refers to a particular case of success in one of the poorest districts in Sierra Leone, Kailuhun. In that district, an existing project named 'Getting Ready for School', in which older primary school children helped their younger peers by mentoring them, was redesigned to become a radio program 'Pikin to Pikin Tok' (Child to child talk) delivered by a partnership between Child to Child (a UK-based international child-rights agency) and the local NGO Pikin-to-Pikin, reaching an audience of 137,000. The levels of child engagement with the program were high, and adults agreed that it contributed to children's learning. This Pikin to Pikin Tok case study sheds light on how investing in smaller, already existing organizations that have shown success and are trust by communities and authorities can produce results during and after this kind of crisis (Barnett et al., 2018).

Regarding preparedness for the mitigation of educational risks of future outbreaks, only Sierra Leone seemed to have developed an emergency response plan, handbook, and phone directory to be available in 75% of schools, ensuring readiness to act in the case of an emergency (Hallgarten, 2020).

### *2.2.2 Conflict affected regions and war-zones*

Even though the massive closures of schools due to humanitarian (or health) crisis might seem unprecedented for some people, the reality is that in many countries the continuing state of conflict has caused enormous damages to the education systems, impeding access to education for millions of children during prolonged periods. In fact, approximately the 50 % of the 121 million children out of school worldwide live in areas affected by conflict and sectarian violence (Baytiyeh, 2021). Particularly, Afghanistan, Palestine and Syria are heavily affected countries, with between 500 and 999 reported attacks on education during the period from 2015 to 2019 (GCPEA, 2020). These attacks on education may be perpetrated for political, military, ideological, sectarian, ethnic, or religious reasons, and have pernicious consequences not only on educational systems but

also on human lives and long-term peace and development, as GCPEA (ibid.) points out. This organization considers six types of attacks on education, namely:

- Attacks on schools
- Attacks on students, teachers, and other education personnel
- Military use of schools and universities
- Child recruitment at school (or on the way to or from it)
- Sexual violence at or on the way to or from school or university
- Attacks on higher education

Although detailed information on the reports of specific attacks can be found, and the devastating effects on education in the affected countries have been studied, information about what actions have been taken by stakeholders to provide students access to education during school closures (remote teaching) and their impact is scarce, even inexistent for some countries. In this review, the specific cases of 3 countries from which there is some information available regarding their remote teaching strategies is presented as follows:

*Palestine.* In this country, that has been under occupation for decades, the Ministry of Education and Higher Education (MoEHE) published a 5 year Education Development Strategic Plan (2008) after the period of the second intifada −Arab word referring to a resistance movement− which left an estimated of 289 teachers and 5,110 students killed, detained or injured; as well as disruptions in approximatively 100 schools by occupation forces in 2008 due to Israeli forces targeting Palestinian education as a collective punishment (The status of youth in Palestine, 2009). The plan contemplated, among other strategies, the introduction of new approaches to teaching such as ICT, E-learning or blended learning, and continuous teacher training to improve the quality of education that was heavily impacted by the conflict crisis. Not much evidence is available regarding whether those strategies were implemented. However, a research article by Traxler et al. (2019) carried out in Nablus, explored Palestinian teachers' experiences living under occupation, and found out that in this particular context technology played a crucial role in mitigating the effects of occupation. For instance, most teachers reported the existence of an institutional website of their schools as well as text messaging systems. Teachers also

made use of phone calls, email, and social media pages, such as Facebook, to stay in touch with students and colleagues during closures. Facebook groups were also useful for distributing the curriculum, send information or share educational materials. Furthermore, teachers reported the use of YouTube and Google to find educational materials, or they created their own video lessons which were sent to the parents to ensure their children could learn during closures. Nevertheless, some challenges were also reported by teachers, for instance, the disparity in schools' infrastructure that meant some schools were fully equipped and some others had limited resources, the lack of full internet access in some households and even the lack of electronic devices such as laptops or tablets, the lack of open educational resources in Arabic –their mother tongue–, and lack of training along with the inability of some older people to deal with technology.

*Afghanistan*. This country has been one of the most affected by conflict and violence, even being classified as the least peaceful country in the world since 2019 (Institute for Economics & Peace). This situation of insecurity – along with the rugged and remote landscape– has negatively affected the implementation of the required infrastructure for the use of ICT for education, as the access to electricity and internet is still very basic even in major cities (Arooje & Burridge, 2022). Nevertheless, whenever the conflict and insecurity has hampered the access to education, distance/remote learning has been implemented through the use of some low-tech media such as radio education or the distribution of DVDs, facilitated by community involvement in school management (INEE, UNESCO, 2011). Interestingly enough, according to Arooje and Burridge (2022), efforts to expand learning beyond the classroom can be traced back to 1969 when the Education Radio and Television (ERTV) network was created to broadcast educational programs in Afghanistan. This network was attacked and destroyed under the Taliban regime during the civil war, however, after its fall, in 2003, ERTV was revived by UNESCO and it is currently an active provider of education programs for students across the country.

*Saudi Arabia:* In 2015, many schools and universities of southern Saudi Arabia closed their classrooms for safety concerns because of the conflict between Saudi Arabia and the Yemen's Houthis. Hence, E-learning emerged as an alternative for many institutions to deliver education to those who were not able to attend traditional face-to-face classes

(Rajab, 2018). Certainly, this was facilitated by the fact that, unlike Afghanistan, Palestine or Sub-Saharian African countries, Saudi Arabia benefits of a good access to the internet, with 70% of its population having access to it at the time (Worldbank, 2022). Rajab's study (2018) presents, for instance, the case of success of Najran University, which could overcome the political crisis by delivering its courses online, with no apparent differences in student learning outcomes compared to face-to-face courses, showing the power of ICTs in delivering efficient, equitable and accessible high-quality remote learning during closures due to an ongoing war. Finally, the author takes this story of success and proposes to seriously consider the use of e-learning in areas suffering from conflict −such as Syria, Iraq, Yemen, etc. – or natural disasters to mitigate the impacts on education delivery.

Furthermore, it is important to note that the impact of conflict and crisis does not only affects the countries where the conflict takes place, but also the communities where refugees seek asylum (Dahya, 2016); thus, international actors have also developed some projects addressing the education of refugees during large-scale disasters and long-term conflicts, using digital technologies to remotely assist displaced children, particularly in the MENA region (Middle East and North Africa) as shown in Table 1, taken from Baytiyeh (2021).

**Table 1**

*Examples of projects using digital technology for education in the MENA region.*

| Initiative | URL | Type of Services |
|---|---|---|
| Iqra, Creative Associates International, and Et4d | https://www.et4d.com/ | Smartphone app for early graders to read in Arabic, practicing with activities, and reading stories. |
| ITWORX | https://itworx.education | An online platform that addresses the needs of K-12 education worldwide, has launched a holistic e-learning solution for underserved Syrian refugee children in Lebanon. |

| | | |
|---|---|---|
| Every Child Learning Pearson and Save the Children | http://www.savethechildren.org.uk/about-us/who-we-work-with/corporate-partnerships/ourpartners/pearson | Mobile application that enables continuity of learning by overcoming barriers such as limited classroom space and high student–teacher ratios. |
| OER Commons Arabic Institute for the Study of Knowledge Management in Education (ISKME) | https://www.crdp.org/ar https://arabic.oercommons.org/EN/ | A microsite of open educational resources that can be aligned to various sets of educational standards. |
| Intel Skoool Egypt | http://www.skoool.com.eg/Default.aspx?tabid=87 | A set of Arabic-language learning objects and simulations for STEM-related curricula at primary, preparatory, and secondary levels. |
| Little Thinking Minds | https://www.littlethinkingminds.com/en/?q=ar | Educational e-content for Arab children under 7. |
| Maktaba Children's Library | http://maktabaqatar.org/ | An interactive virtual library aimed at young Arabic readers worldwide and designed to promote Arabic literacy. |
| BLOSSOMS Massachusetts Institute of Technology | https://blossoms.mit.edu/videos?field_topic_value_many_to_one=All&term_node_tid_depth=62&term_node_tid_depth_1=All | Over 100 math and science video lessons in high school classrooms from Brooklyn to Beirut to Bangalore. |
| Nafham | https://www.nafham.com/ | Free online K-12 educational video platform organised by grade and subject covering the curricula of several countries in the MENA region. |

| | | |
|---|---|---|
| Aliim | http://aliim.org/ | Smartphone Schools Program (Lebanon and Jordan) that empowers Syrian refugee girls aged 12–16 living in the Levant or migrating to other regions of the world with relevant educational opportunities. |

Taken from Baytiyeh (2021)

In addition to those strategies, the endorsement of the Safe Schools Declaration in 2015 allows countries to express political support for the protection of education stakeholders in times of armed conflict, being one of its commitments to ensure continuity of education (GCPEA, 2020). Owing to this declaration, some actions have been taken in different countries affected by conflict. For example, in Burkina Faso, in 2018, UNICEF organized some study camps for students whose schools were closed, and radio-based education was also provided. Radio-based education programs were delivered in Cameroon, Guinea Bissau, Niger, Nigeria, Sierra Leone, Somalia, and DRC as well. Temporary schools with both, trained and untrained volunteer teachers were set up in Central African Republic, Nigeria, and Syria. Finally, distance online learning via phone, email and Skype was offered to students in Ukraine in 2014 and 2015 during the periods of fight between government forces and pro-Russian insurgents (GCPEA, 2020).

### *2.2.3Natural disasters and weather-related emergencies*

When talking about education in emergencies or education in crisis, this not only refers to man-made catastrophes, such as wars, or to disease outbreaks, but also to natural disasters such as hurricanes, flooding or earthquakes. Certainly, the impact of the nature's force can be extremely destructive and affect entire communities or regions with its power. When this occurs, education plays an important role in community recovery, as it helps students and families create a sense of routine and return to a kind of normalcy, which can confer psychological benefits in the midst of a constant state of uncertainty and insecurity (Peek & Fothergill, 2006; Hartman & DeMatteis, 2008; INEE, UNESCO, 2011; and Hunt et al., 2011). Conversely, keeping children out of schools for long periods might cause that

many of them fall into child labor, child marriage, and sexual exploitation; or put them in risk of violence, rape, prostitution, and other criminal activities that threaten their lives; or they might simply never return to school (Baytiyeh, 2019); and in the case of adult professional education, the impact is bigger, as it affects not only the student but also the wider society (Richardson, et al., 2015). Hence, ensuring access to education and strengthening school resilience is essential in the aftermath of a disaster.|

In this vein, the implementation of some forms of distance learning following different natural disasters has been documented. For instance, the efforts to maintain the mission of the Louisiana State University School of Medicine in the aftermath of hurricane Katrina, which devastated New Orleans and coastlines of Alabama, Louisiana and Mississippi in 2005, were reported by DiCarlo et al. (2007). Among the actions taken by faculty members to ensure the maintenance of their programs, the continuation of lab experiences without adverse effects was possible thanks to previous work of directors who had converted their labs to digital formats; for some other courses, online tutorial exercises were also developed.

Later on, in New Zealand, after the 3 seismic events that occurred in September 2010, February 2011 and June 2011, the College of Business and Law of the University of Canterbury (UC) implemented the use of Information Technologies (IT) in various ways according to the needs of the institution at those specific times of the year, as described by Ayebi-Arthur (2017). In the aftermath of the first event, there was the need for students to use resources of publishers of journals to work on complex assignments and thesis, since the University library was inaccessible; that need was fulfilled by publishers by offering access to extensive online library resources. As for the second seismic event, the need was related to the limited teaching spaces, so e-learning was implemented for students who did not have to be on campus. Finally, by the time of the third event, there was disruption of examinations, thus e-learning was implemented for assessment. For the implementation of this e-learning, channels of communication which students were already familiar with were used, as well as platforms, such as Moodle; software such as AdobeConnect, Quicktime or Echo 360; and a Learning Management System (LMS), some of which were already available and supported by the University long before the earthquakes.

Continuing with distance learning after earthquakes, two particular cases of success are presented by Villafuerte Holguín et al. (2017) and Barboni (2019). First, in 2016, three powerful earthquakes hit Italy, devastating a whole region. Is in this context, that the University of Camerino, facing the closure of several of its structures located in the city center which was inaccessible because of all the damages, and the fact that hundreds of students were left homeless after the loss of their housing near the campus, had to implement a way of continuing with instruction to avoid a significant drop of students' attendance. Since the University, was already using Cisco products, they asked the company for some help, so they provided the University with the Webex platform at a significant discount, as well as training for the professors and couching to Informatics graduate students so they could serve as tutors for students and professors whenever they had difficulties using the platform. Using Webex, teachers could share notes, presentations, and videos to let students see physical demonstrations. The platform also had feedback mechanisms and allowed interaction with students, permitting the institution to maintain the instructions program until the physical structures were operational. The success of this e-learning implementation was such that in a survey, students indicated that they did not feel that quality of instruction was missing, and they were enjoying the e-learning; in addition, their test scores did not present detriment. After this emergency passed, University of Camerino implemented some aspects of online learning to complement their face-to-face traditional instruction (Barboni, 2019). The second case is presented in Villafuerte Holguín et al.'s study (2017), concerning the implementation of an e-Literature Circle as a learning space for the languages major in the Faculty of Education at the Universidad Laica Eloy Alfaro de Manabí (ULEAM) in Ecuador, in the aftermath of the 2016 earthquake that hit the county. The execution of this four months project was possible with the use of the applications of Google for Education as they are of easy access, user-friendly and compatible with many multimedia tools. Training for the use of these applications, as well as permanent tutoring were provided to successfully adapt the traditional face-to-face Literature Circles to the online modality. The study concludes that the implementation of these e-Literature Circles reduced students' exposure to the risks associated with earthquake aftershocks while contributing to the resuming of educational

activities and the strengthening of students' written production by promoting the expression of ideas and written reflections.

Finally, a study carried out by Schwartz et al. (2020), collected the experiences of school practitioners implementing distance learning in response to emergencies. However, not only emergencies that provoked prolonged school closures (10 or more school days) were addressed, but also climate emergencies such as snow days, which caused closures of just a couple of days. Certainly, considering this type of meteorological emergencies is also of interest, since they are common causes of closures, as seen in Wong et al.'s work (2014), where they found that the most frequent causes of unplanned school closures in the period from August 2011 to June 2013 in the United States were the weather (79%) followed by natural disasters (14%). Thus, in Schwartz et al.'s study (2020), participants identified two strategies to implement distance learning, namely online and offline, and discussed the barriers for implementation of each one: In the case of offline strategies, which consisted of sending home printed materials, asking families to pick up assignments from a physical location, or one-way instruction such as radio broadcast or TV programs, participants considered that the lack of frequent interaction with students, as well as the impossibility of timely assessment were important limitations. Also, difficulties in distributing large quantities of hard-copy materials and the fact that this type of content delivery needs more presence and help from adults in households for younger students mean greater challenges. As for the online learning strategies, participants perceived that it allowed more interaction, sooner assessment and were more closely approximating to face-to-face instruction when delivered synchronously. However, its implementation requires several components, for instance, schools need to already have a working LMS, high-quality online content, access for students and teachers to devices and Internet connection, and training and support for teachers to deliver online instruction, which make impractical to implement for schools which were not doing online learning before the emergency. In addition, it must be considered that disasters such as hurricanes often cause large-scale loss of electricity and Internet access, impeding the implementation of such online strategies.

Concerning participants experiences in distance learning during emergencies, the study (idem) divided them in two scenarios: a) short disruptions in snow days and b) long

disruptions because of hurricanes. For the first, there was no expectation for synchronous instructions, and teachers and students were given some flexibility for the schedules. Students were not asked to complete their assignments on the day, but they were given from 3 to 10 extra days to complete them in case of loss of Internet. Teachers could choose their own schedules to keep office hours to give feedback to students via email, Facebook, etc. and they also had some freedom to set the goals of the distance learning day: they could make a remediation lesson, give the lesson they were supposed to do in person that day, or make a preview of a future lesson. In the case of long disruptions, which were caused by Hurricanes Harvey and Irma, a principal in Texas said that distance learning had a much more important role in the recovery period, than during the days when school was closed, as online courses were offered to students who were absent longer after the school resumed its activities, so they could catch up in a self-pace. During the closures, however, none of the participants required to use distance learning to offer new content, because many students were displaced from their homes or had no electricity, and the hardships they were experiencing required the sensibility of institutions. Nonetheless, courses who were already using an LMS allowed students to continue using the resources to advance in their coursework if they wanted so.

### 2.2.4 The case of Mexico

Even though in the recent history of our country there have been some events that affected population and provoked temporary closures of schools, such as the epidemic of influenza AH1N1 in 2009 or the earthquakes of 2017, the evidence of the use of ERT before the COVID-19 pandemic is scarce. In fact, when those emergencies happened, most institutions limited to cancel classes for some days or a couple of weeks. However, there is a documented case of the use of ERT almost a decade before the COVID-19.

Espinosa-Díaz et al.'s article (2011) presents the case of the UABC (Universidad Autónoma de Baja California), that has developed a protocol of academic continuity in case of contingency. The creation of this protocol originated after the institution had to cancel classes for two weeks due to the spread of the Influenza AH1N1 during the spring of 2009. In the face of the possibility that by winter 2009 the number of infections increased, the institution started working on the PCA (Plan de Continuidad Académica) with three main

objectives: 1) to protect the physical integrity of the members of the Universit1) to protect the physical integrity of the members of the University community, 2) to stablish the institutional conditions allowing to continue with the academic activities with the use of digital technologies, and 3) to maintain communication between the rectory, administrative departments, academic units, teachers, students, administrative staff and all education stakeholders (Espinosa-Díaz & Ponce-Ceballos, 2022).

Based on business continuity models, the UABC considered elements such as planification, leadership, key actors establishment, training, simulations, and evaluations for its protocol. It is important to mention that the UABC had already diversified its learning programs since 2006 by offering in all programs some blended or online courses. Nevertheless, since the online courses were less than the 30% of the total offer, the need of massive training for teachers was evident, and this need was addressed during the next couple of months. This training included the use of Blackboard, communication and collaboration tools, and the production of support materials for teachers and students.

This protocol did not have to be used immediately, since the expected outbreak of Influenza did not happen. However, in April 2010, Baja California was affected by a powerful earthquake that caused serious damage in some of the academic units of the UABC. It was at that moment when they had to put in practice this protocol, which allowed the community to continue with the academic programs online just a couple of days after the incident, without too much preparation because they had made great progress in the training of teachers with the use of technology for education. According to Espinosa-Díaz et al. (2011), this experience served to raise awareness among teachers about the importance of continuous training, as well as to increase the use of Blackboard in the day to day practice. Additionlly, this experience helped identify some oportunity areas to improve for future emergencies, and in fact, it also contributed to the rapid action of the institution during the COVID-19 lock-down, since they started implementing the protocol in February so they could resume the courses inmediatly after the closures (Espinosa-Díaz & Ponce-Ceballos, 2022)

After reviewing all these emergency scenarios, and how they impacted the way education was delivered, it becomes evident that the situation we faced with the closures of

schools and universities owing to the COVID-19 outbreak, although in a greater scale and for longer duration, is only one of the many possible circumstances that could require a temporary shift from the traditional teaching and learning to more flexible, distant methods. Particularly in the case of Mexico, a country that nowadays is in the 137th place of the rank of the global peace index (Institute for Economics & Peace) and is the 4th out of 193 countries with a higher organized crime index (The Organized Crime Index, 2021), the possibilities of a crisis due to armed conflicts is latent. Moreover, as the county is located in an earthquake-prone zone, and since "of all natural disasters earthquakes are the least predictable and the most destructive to the built environment" (Baytiyeh, 2019) , the education system should be prepared to face future emergencies, these be natural or manmade. For this to be accomplished, the lessons learned from all past experiences of education in emergencies should not be neglected.

In the following sections, lessons taught by previous emergency scenarios, as well as the challenges and contributions of ERT described in literature will be discussed.

### 2.3 ERT: Lessons learned

As previously seen, there are many events that can unexpectedly cause the need for schools and educational institutions to close their doors. When this happens, continuing with the delivery of the educational programs is of great importance, not only for the wellbeing of students but also for the recovery of communities. Future prognostics on emergencies are not favorable either, since global warming has provoked a change in weather patterns deriving in unprecedented extreme climate events increasingly often (Diffenbaugh, et al., 2017) and even a higher risk of new pandemics and epidemics (European Comission, 2021). Fortunately, information about previous experiences on the matter, and the extended literature about ERT in COVID-19 times have left valuable lessons to consider in the preparation of a contingency plan.

First, most of the authors and experts conclude that the use of online tools for education, and the implementation of some forms of e-learning in the school programs −this be in a blended or fully online modality−, before any emergency happens is fundamental for the success of ERT (Ayebi-Arthur, 2017; Baytiyeh, 2018, 2019, 2021; Barboni, 2019; Dhawan, 2020; Schwartz et al., 2020; and Reimers, 2022). This

implementation of e-learning components to the “normal” school periods could also be useful for different situations in which students cannot attend lessons in the brick-and-mortar facilities, for instance, students who have had an accident, female students who have just had a baby, students who work, etc. who could use material made available online for what Buell et al. calls an hybridization program (Buell et al., 2003). In addition, Baytiyeh (2021) proposes a strategy to be prepared for emergencies that includes: a) a budget destined for a cloud computer technology to maintain access to administrative resources b) the involvement of administrators to design a plan and supervise it c) the availability of an IT staff who has to ensure reliable communication in case of emergencies, secure cloud storage for data servers, help teachers with technical issues, and conduct workshops for parent on the framework to be implemented in case of school closure d) the creation of an online version of the courses by teachers as well as the regular upload of materials in a chosen platform and e) a testing period of the strategy to make sure it will work in a real emergency-situation.

Additionally, it must be considered that the role of teachers in an emergency scenario is crucial, and even “teacher training ranked as one of the highest listed areas of programmatic focus for technology-education solutions” (Dahya, 2016). In fact, institutions that invested in faculty training were in a much better position when facing ERT during the closures due to COVID-19 (Lederman, 2020). However, teacher training must not only be limited to technological issues, but also teachers should be prepared to be a support for students throughout difficult times, since in a situation of emergency, they may experiment anxiety, depression, fear, among other psychological issues, so faculty should be sensible, emphatic, compassionate, flexible, and know how to address students’ needs during crisis (DiCarlo et al., 2007; Dahya, 2016; Lederman, 2020; Dhawan, 2020; Schwartz et al., 2020; and Peek & Fothergill, 2006).

In the case of students, research on education in emergencies has shown that, even if new generations were born with access to computer and Internet, they are not necessarily savvy in using those technologies, especially for academic purposes. Hence, assessment of their readiness and accessibility to online learning platforms, and guidance in issues such as the reliability of content on digital media, cybersafety, cyberethics, and the adequate use of

online tools would be of great utility in student formation (Baytiyeh, 2021; and Ntshwarang et al., 2021). Besides, self-management-skills, greater flexibility, and resiliency are also part of the skills useful for students to overcome a crisis event (Reimers, 2022), as well as learning autonomy, which must be promoted by teachers and institutions especially in a context of distance learning (Juárez-Díaz & Perales, 2021).

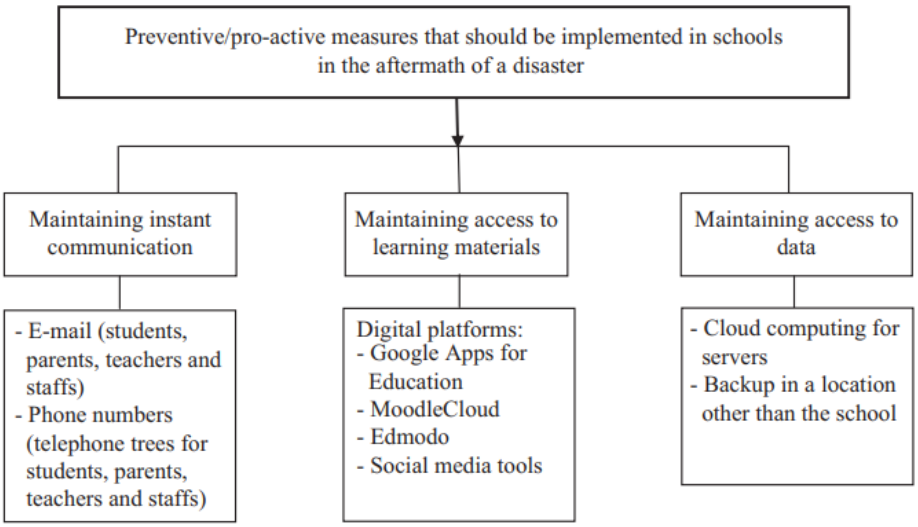
Another important element to consider when implementing ERT, is the availability of resources. Certainly, research on education in emergencies has evidenced that even if an institution is technologically well prepared, a natural disaster can cause damages to infrastructures, down server, lack of electricity, and damage or loss of digital devices (Schwartz et al., 2020). In those cases, or when there is limited IT infrastructure such as in rural areas in developing countries (as is the case of Mexico), the use of traditional technologies such as radio, television, or even printed materials remain more effective and accessible (Gulati, 2008; Dahya, 2016). In fact, according to Burde et al. (2015), programs that implemented multiple online and offline modalities were more successful in reaching large number of students in rural areas. Also, when using technologies in emergencies, it is important to point out that the use of communication channels, platforms, and online tools that stakeholders are already familiar with is the best option (Ayebi-Arthur, 2017; Barboni, 2019; Baytiyeh, 2021). For instance, Baytiyeh (2021) suggests the use of social media for pedagogical purposes when there is no LMS available. Similarly, regarding the accessibility of devices, Dahya (2016) proposes the prioritization of smaller mobile devices when funding for maintenance of computer labs is not possible, as those devices have fewer infrastructural requirements and more accessible cost.

Finally, as it happens with any intervention in education, it is of foremost importance to evaluate the situation and the results after an ERT period, to identify weaknesses and opportunities or contributions, and to be better prepared for future needs (Barbour, et al., 2020; Lederman, 2020). As Barbour et al. claim (2020): “we should not simply abandon remote teaching and return to our prior classroom-only practices without ensuring that we preserve the lessons of 2020 for future public health and safety issues” (p. ii). Hence, all the literature concerning these emergency periods in education allows us to identify the main components of ERT, which according to Baytiyeh (2018) are a) Instant

communication, b) Access to learning materials, and c) Access to data (see Figure 1 below). The identification of these components is very useful for institutions to know what to focus on and when implementing ERT during a crisis. Furthermore, in the present study, this information serves as indicators to evaluate the actions taken by the institution to guarantee the continuous delivery of education during an emergency.

**Figure 1**

*Main components to maintain online education during disasters.*




Note: taken from Baytiyeh (2018)

## 2.4 Challenges of ERT

When approaching ERT, most of the literature refers to challenges faced. Certainly, such an unexpected event, as it was the outbreak of the COVID-19 pandemic would represent a great disruption in many aspects of life, education included. Here, the most relevant challenges for the implementation of ERT in varied scenarios are presented:

- Lack of resources or poor connectivity. Depending on the countries, and the level of urbanization of the different areas, varying levels of inequity in the access to resources can be presented. In countries like Sweden, Germany or the UK, for instance, the digital gap is not generalized and students have their own devices and are familiar with the use of digital platforms (Nilsberth et al., 2021; Weidlich & Kalz, 2021), whereas in developing countries and rural areas this gap is more pronounced, making difficult the access to internet connection, or even electricity (Saqlain, 2021;

Arooje & Burridge, 2022), or presenting a limited access to digital devices, as some households do not have enough devices for all family members enrolled in schools or working remotely (Juarez-Diaz & Perales, 2021; Khlaif et al., 2021). In many studies, it was also reported a lack of teaching and learning resources, as well as technical problems due to unstable internet connection (Barbour, et al., 2011; Mseleku, 2020; Evişen et al., 2021; Sevy-Biloon, 2021).

Particularly in Mexico, this situation represented a big challenge, since according to data from the INEGI (2020a) only 56.4% of the households had access to the internet and 44.3% owned a computer by the outbreak of the pandemic.

- Null or insufficient training. According to Barbour et al. (2011), teachers are expected to be qualified to teach in online environments but they are not required to have training in online pedagogy. Indeed, this lack of teacher training was made evident in many of the studies regarding ERT in COVID-19 times, were it was reported that teachers were not aware of how to use technology for teaching purposes, and there was a lack of institutional support (Saqlain, 2021; Aktar et al., 2022). Null or insufficient training in online and technological pedagogy, led courses to become more content-oriented and teacher-centered (Juárez-Díaz & Perales, 2021; Nilsberth et al., 2021).
- Limited interaction. Letting aside the challenges regarding the lack of resources and training, the inherent nature of online/distance modalities presented a big challenge reported by many researchers: a limited student-student and teacher-student interaction (Juárez-Díaz & Perales, 2021; Werner & Küplüce, 2021). Studies have found that since students were not used to this kind of remote learning, some were intimidated to communicate via emails, or videoconferencing platforms, and most of them did not even turn on their cameras for the entire class or participated actively in the sessions, which were some of the factors explaining the issues of interaction in ERT (Evişen et al., 2021; Sevy-Biloon, 2021; Aktar et al., 2022). In Hegler et al.'s study (2022), limited peer- interaction was ranked as one of the top 3 students' dislikes of online learning, and according to Reimers (2022), limited opportunities for interaction provoke a decrease in engagement, participation and learning. Lack of

teachers' presence is even claimed to be one of the reasons for students' dropout (Saqlain, 2021). This findings relate to Rovai and Jordan's work (2004), where insufficient interactions are claimed to likely result in dropouts as causing a low sense of community, essential for a successful learning. Indeed, it is through interactions that students can help each other and serve as models to scaffold their learning (Nilsberth et al., 2021)

- Lack of autonomy and self-management skills. Since interactions with teachers and peers represent an issue in online environments, students are required to take more responsibility for their own learning. However, students tend to lack these autonomous learning skills, and prefer to receive information passively, depending mostly on teachers (Juárez-Díaz & Perales, 2021). This lack of autonomy is presented to a greater extent (but not exclusively) the younger the students are (German, 2020; Tomasik et al., 2020).
- Work overload. A common complaint of teachers in different studies was the heavy load of work resulted from the sudden shift to ERT as they were required not only to deliver their courses, but also adapt them to a new modality and to equip themselves with the skills to work online (Juárez-Díaz,& Perales, 2021; Al-Abri & Mydin, 2021; Nilsberth et al., 2021; Werner & Küplüce, 2021; Weidlich & Kalz, 2021). Aktar et al. (2022) stated that this overload even blurred boundaries between work and life, becoming overwhelming and exhausting for teachers, but also for students (Reimers, 2022), aggravating some issues related with the next challenge: Mental health.
- Mental health issues. It is no wonder that in moments of crisis, psychological problems arise among the population. Natural disasters, armed conflicts and disease outbreaks threaten people lives and are *per se* a reason for the increase in mental health issues such as anxiety, stress, depression or insomnia (Peek & Fothergill, 2006; DiCarlo, et al., 2007; Dahya, 2016; Dhawan, 2020; Schwartz et al., 2020; Evişen et al., 2021). In addition to this, issues related with the ERT, such as the increased workload mentioned before, the lack of interaction, the connectivity problems or even working in an inappropriate environment (e.g at home with a busy environment) have been signaled as aggravating these mental health challenges

(Mseleku, 2020; Almutairi et al. 2021; Aktar et al., 2022; Hegler et al., 2022; Reimers, 2022)

- Inappropriate work environments. In parallel with the issue mentioned before about households not having enough devices for all family members, there is also the issue of households that do not possess enough rooms to ensure privacy and a suitable environment when attending online lessons. Indeed, in Hegler et al.'s study (2022) Privacy was mentioned as one of the main obstacles for online learning, and in Evişen et al. (2022) noise in the house was mentioned as one of the domestic factors that made the environment not suitable for learning. These characteristics sometimes prevent students from turning on their video cameras or their microphones to participate, making classroom management for teachers more challenging, as preventing cheating and mental distractions or having control of students' outcomes is complicated (Almutairi et al. 2021).

### 2.5 Contributions of ERT

Although many challenges were faced by education stakeholders due to the COVID-19, many authors reported also a positive side, and stated that this crisis created also opportunities for improvement, especially when ERT was implemented for long periods. Those opportunities and contributions are presented below:

- Attention to previously existing problems. Being aware of problems is the first and most important step to take action and solve them. In this sense, difficult times such as the COVID-19 pandemic represent a turning point in history, and highlight problems already existent, for example, in education. Mirhosseini (2021) sees the pandemic as "a prompt to revisit many aspects of ELT theory, practice, and research and to think again about the purpose of education" (p. 2). Problems such as the digital gap, racial and social inequalities and unequal access to resources are not limited to the pandemic responses, but they were highlighted in the process (Barbour et al., 2020; Nilsberth et al., 2021) propitiating reflection and more attention to overcome them.
- Reduction of digital gap. Related with the previous point, the pandemic not only brought new challenges for education, but also highlighted the ones already existing

but that were somehow overviewed, such as the digital gap. The awareness of these challenges, and the need to overcome them to ensure a smoother transition to ERT, resulted in a sum of efforts towards an improvement of conditions. Indeed, as mentioned by Sevy-Biloon (2021), governments and private organizations worked arduously to increase the access to technology for disadvantaged students, as well as invested in many educational platforms. In fact in Mexico, the INEGI reported an increase of 72% of the population using the Internet in 2020 (FORBES MEXICO, 2021) and it is said that the pandemic accelerated the use of ICT by 10 years (UNAM, 2021). This improvement in reducing the digital gap means a gain for education and also for life quality, that otherwise would have taken much longer to be produced.

- Increase of the use of technologies for teaching and learning. As seen in the case of the University of Camerino response after the earthquakes in Italy, where they adopted online elements to complement their traditional classes even after the remote teaching period (Barboni, 2019), some authors see the pandemic as an opportunity to integrate online tools and resources in education, and develop readiness for online education strategies (Pérez Escobar, 2020; Hill, 2020; Almutairi et al., 2021; Weidlich & Kalz, 2021; Werner & Küplüce, 2021). In fact, in Hegler et al.'s study (2022) students showed high willingness of taking online courses in the future, even when stress was reported high during the ERT; and Hill (2020) proposed four phases of ERT, where the 4$^{th}$ one described an adoption of higher levels of online learning than pre- COVID-19.
- Opportunities for innovation and digital development. The need to change teaching practices for achieving learning outcomes through a new teaching modality gave teachers opportunities to experiment, create and implement new solutions, as reported by Shisley (2020), Mseleku (2020), Sevy-Biloon (2021), and Almutairi et al. (2021). Werner and Küplüce (2021) even found that teachers started integrating international projects.

  Strengthen skills. Teachers (and students) participating in different studies on ERT reported having improved their technology skills (Klein, 2021; Juárez-Díaz & Perales, 2021; Weidlich & Kalz, 2021; Hegler et al., 2022). In addition, studies suggest that some students also improved their learning skills by taking responsibility

and control of their learning process and developing learner autonomy (Juárez-Díaz & Perales, 2021; Sevy-Biloon, 2021).

- Flexibility. The nature of online instruction presented opportunities for students to work more independently and manage their own time, as well as work from the safety of their homes (Sevy-Biloon, 2021; Evişen et al., 2021; Aktar et al., 2022)
- Professional development. Pushed by the need of performing well in a new online modality, teachers started participating in professional development and training courses (Al-Abri & Mydin, 2021; Sevy-Biloon, 2021). Besides, owing to their improvement in technology skills, teachers acquired positive feelings such as higher estimation of their abilities and confidence towards their teaching practice (Juárez-Díaz & Perales, 2021). More details about professional development are discussed in the next section.
- Opportunities for research. Finally, this emergency situation represented opportunities for research in a new area, and expanded the use of digital methods of data collection contributing to research in the field of education (Mseleku, 2020).

In conclusion, even though moments of crisis provoked by disease outbreaks, natural disasters or manmade conflicts pose numerous challenges for the continuity of education, it is important to learn from those experiences to be prepared for future emergencies, and also take advantage of the contributions to the development of education that can only be accelerated by difficult times. However, it must be taken into consideration that some of the challenges of ERT cannot be fully overcome due to the crisis nature of the situation, thus, when implementing it, it is important to lower the expectations about learning and student outcomes (Schwartz et al., 2020; Al-Abri & Mydin,2021).

### 2.6 ERT and professional development

Professional development (PD) the ultimate goal for all those involved in different professions (Yadav, 2011). For language teachers this is not different. According to Al-Jarf (2021), “professional development refers to ongoing training and education, continuing education, or professional learning and certification that teachers need to succeed in their job” (p.76). She stresses that PD provides teachers with opportunities for promotions, help

them become more efficient and successful, and improve their knowledge and skills leading to the accomplishment of desired outcomes in student learning.

Under a different perspective, Richards and Farrell, (2005) propose a differentiation between training and development. On one hand, they refer as training to activities focused on teachers' present responsibilities with immediate goals and that are short-term, such as preparation for a first teaching position or to take on a new assignment; it can also involve trying new strategies in the classroom under supervision, getting feedback from others. Also, it tends to be determined by experts and is available in standard formats. On the other hand, development serves a longer-term goal and implies general growth of teachers' understanding of teaching and of themselves. It is seen as bottom-up as it involves individual reflection. PD entails self-observation strategies, such as reflective analysis of teaching practices, examination of beliefs and values, conversation with peers on core issues and collaboration on classroom projects. However, it does not limit to individual reflection, and can include exploration of new trends in language teaching, critical examination of the organization and management of school language programs, or familiarization with developments in subject-matter knowledge. In the same vein, Sadeghi and Richard (2021) view training as just a stage in the longitudinal process that is PD, which serves the long-term goal of understanding the nature of teaching. According to them, learning in PD is meant to take place through participation, cooperation and socialization.

Regardless of the definition of PD one may choose to consider, scholars agree that it is an ongoing process that lasts throughout the teaching career (Yadav, 2011; Stroupe & Kimura, 2013; Gautam, 2020; Sadeghi & Richards, 2021). According to Lieberman (1996), cited in Utami (2019), there are three types of PD: a) direct teaching, b) learning in school, and c) out of school learning. The first one refers to attending courses, conferences, workshops, etc., the second one involves mentoring, peer coaching, critical friendship and task-related planning teams; as for the last one, it refers to learning networks, visits to other schools, school-university partnership among others. Richards and Farrell (2005), similarly, identify different techniques facilitating ELTPD, namely: workshops, self-monitoring, teacher support groups, teacher journals, peer observation, teaching portfolios, analysis of

critical issues, case analysis, peer coaching, team teaching and action research. In addition to the referred techniques, Yadav (2011) complements the list with some other examples such as joining professional association or networks, subscribing to ELT journals, organizing different trainings or seminars, conferences, and a more innovative one: blogging.

Indeed, with the adoption of ICT in teaching and learning, new forms of PD involving online tools have emerged and have been studied. For instance, Yadav (2011) advocates the use of the blog as an affordable, accessible and effective way to share ideas, and signals its compatibility with many of the different PD techniques mentioned before. Similarly, Atmojo (2021) states that "various online spaces and social media sites are very valuable as being the venues where teachers enhance themselves professionally" (p.14) so it is not surprising that the use of social networks as a tool to share knowledge, professional learning and innovative pedagogical practices has been increasingly studied, notably, Facebook groups have shown potential in enhancing teachers' PD since the interactions facilitate members' collaboration by requesting, posting and sharing different strategies, materials, resources and even communicating problems (Al-Jarf, 2021). Also, much of the research on PD in language teaching in higher education has been around Computer-Assisted Language Learning (CALL) which involves any application of technology to language teaching and learning to meet students' and teachers' needs in the digital world (Tafazoli, 2021). Particularly, following the emergency situation lived during the COVID-19 pandemic, and the lesson learned about the possible need for remote teaching at any moment, the implementation of technology use; its integration into teaching; and its application in ERT as part of the teacher's skills set in PD programs seems essential (Hodges et al., 2020; Barbour, et al., 2020; Al-Abri & Mydin, 2021; Tafazoli, 2021; Türegün-Çoban & Kuyumcu-Vardar, 2021)

Certainly, although the challenges on education brought by the pandemic were many, as seen in this review, it also shed light on the shortcomings already existent. As Barbour et al. (2020) remark, revisiting Murphy's ideas (2020), "examining the deficiencies, inequalities, and barriers of emergency e-learning as exceptional experiences obscures the deficiencies, inequalities, and barriers that exist in the normal arrangements of

educational systems"(p.23). In this sense, the need to invest more (in terms of time and resources) in teacher PD became evident only after the sudden implementation of ERT, when everyone had to step out of their comfort zone. For instance, a study carried out in Indonesia about online teacher professional development (OTPD) found that only 35.7% of teachers had engaged in OTPD activities before the pandemic (Atmojo, 2021). In the case of Mexico, according to the last Teaching and Learning International Survey (TALIS) of the OECD on 2018, the country showed a decrease of teachers' participation in ICT training programs, as well as an increase in teachers' opinions signaling the lack of incentives as a barrier to participation in continuous professional development (CPD) activities; in addition, it was one of the countries with a lower share of teachers' reporting any kind of support for participating in CPD, such as release from teaching duties for activities during regular working hours, material needed for activities, reimbursement/payment of costs, or increase of salary; existing an important gap between private and public schools, the first ones providing some kind of support more frequently (OECD, 2019).

However, with the shifting to ERT, the necessity of developing professionally was exacerbated and became more apparent when teachers faced their inability and lack of preparedness to perform in such circumstances. This situation forced teachers to build resilience, and for many of them it became also an opportunity for personal and professional growth (Salas-Serrano, 2022). Indeed, as stated by Higgins (2011) (in Aktar et al., 2022), frustration is necessary for growth. Examples of this can be found in Gautam (2020), Atmojo (2021), and Aktar et al.'s (2022) studies in Nepal, Indonesia and Bangladesh respectively.

First, Gautam (2020) found that teachers had to find out opportunities to learn to teach alternatively, and experimented a rather collaborative PD by asking their friends, mentors, seniors and experts for help. They were very active to find ways to helping their students as much as possible and invested their time and resources to learn new ways of teaching; they naturally looked for the models and best practices in ELT and were also self-motivated to learn when identifying opportunities around to attend PD events. More than half of the teachers attended, for example, research seminars, ELT conferences organized

by teachers' associations, teacher development workshops, or online courses offered by various universities or the ones available on MOOCS and Coursera. Moreover, teachers in the study reported having heard about ICT integration in education before, but having only get the opportunity to actually experience it under the context of the pandemic, so their familiarization with the online tools and resources on ELT was one of the major accomplishments reported. In fact, they said that these resources even contributed to enhance their own English language proficiency.

Then, in Atmojo's research (2021), it is described how teachers had to engage in OTPD to cope with the challenges posed by the shift to remote learning, resulting in a generalized perceived improvement in their skills for teaching online. The skills found to be improved where: a) technological skills, b) social and communication skills in an online learning environment, c) content skills, d) pedagogical skills for teaching online, e) design skills, and f) management and institutional skills.

Concerning Aktar et al.'s study (2022), in which they analyzed narratives of four teachers, the emphasis was more on the emotional and reflective part of PD. The study showed that teachers experienced many kinds of uncertainty at the beginning of the ERT, which provoked various psychological concerns like tension, fear, stress, frustration, lack of confidence, among others. However, when they adapted, it contributed to their management of emotions, gain of confidence, professional capacity building, and the construction of their teacher identity, making it a rather rewarding experience. In particular, one of the teachers in the study saw the conducted online program as a whole as one of his PD stages, and took each phase of the experience as an opportunity for reflection to be aware of his limitations, and then create scope for follow-up actions that contribute to the growth of their experience, expertise and performance.

According to Sadeghi and Richards (2021), PD can be: motivated by teachers themselves (independent PD) or regulated through management (institutional PD); informal (such as talks with colleagues) or formal (for instance attending seminars); individual or collaborative. Interestingly enough, the examples of PD presented above have in common that it was mostly –if not only− self-initiated (or independent) rather than institutionalized.

In fact, Gautam (2020) explicitly mentioned that in the context of his study there was no institutional arrangement for teacher PD. This may reflect a lack of interest from authorities and institutions to promote PD, which represents an important issue because all stakeholders should be involved in the process, and government and administrators should not view PD as only the responsibility of teachers (Stroupe & Kimura, 2013). Indeed, without institutional support to teacher PD initiatives, once adapted to the emergency situation, when the need to overcome new challenges will seem overtaken, teachers are unlikely to engage further in those activities (Sadeghi & Richards, 2021). However, it must be pointed out that when such institutionalized support translates into requiring teachers to mandatory participate in activities designed and determined by authorities, without taking into consideration teachers' opinions and needs, PD programs might influence teachers' disposition and/or fail to gain authentic professional growth (Utami & Prestridge, 2018).

Considering all this, characteristics and requirements for PD programs and initiatives to be successful are presented as follows, based on researchers' findings and opinions:

*Teachers' needs.* As Borg (2015), cited in Sadeghi and Richards (2021), says, "There are no universal templates for success"; hence, when designing and providing PD programs, it must be assured that they are relevant and responding to teachers' actual needs (Sadeghi and Richards, 2021; Tafazoli, 2021). According to Utami and Prestridge (2018), PD tailored to specific need and interests of teachers increases motivation and the likelihood of application of new practices into their classroom.

*Collaborative work*. As stated by Stroupe and Kimura (2013), successful programs are holistic, and all stakeholders should be involved in their planning, in particular teachers, since it is on them that the success or failure of their implementation depends. Indeed, PD works best collaboratively, and teachers prefer to have a say on what they want or need to learn; if teachers' concerns are disregarded PD programs are likely to be unsuccessful in meeting their expectations ( (Utami, 2019; Sadeghi & Richards, 2021; Tafazoli, 2021)

*More than knowledge delivery*. Instead of PD practices that view teachers as only knowledge consumers, PD programs should be experientially based, focused on reflection,

practical, and collaborative through the development of learning communities (Stroupe & Kimura, 2013; Sadeghi & Richards, 2021).

*Evaluation.* Teachers must have the opportunity to supervise their own PD, evaluate the activities in which they are involved, and be assured that the programs are properly followed up and evaluated (Sadeghi & Richards, 2021; Tafazoli, 2021).

*Ongoing process.* As seen along this section, PD is an ongoing process, and so should be PD programs and not be seen as one-off type of activity, as duration and scope may also have impact on their success (Stroupe & Kimura, 2013).

*Time considerations*. To perform better in PD activities, teachers must be able to handle also their family and personal responsibilities. Also, they should have more time and personal motivations (Atmojo, 2021). According to Al-Abri and Mydin (2021), for joining CPD courses, teachers wish to have less work. In this vein, McCuster (2017), as cited in Tafazoli (2021), suggests that PD must be job-embedded and available just in time.

*Institutional support*. To motivate teachers to engage in PD activities, support by institutions must be given. Certificates of participation, financial incentives, rewards, and promotions, are some examples of institutional support teachers should benefit with (Atmojo, 2021; Sadeghi & Richards, 2021).

The ultimate goal of all educational enterprises is optimal student learning (Sadeghi & Richards, 2021). Thus, ensuring teachers' engagement in PD is crucial, since the key of PD is "to promote effective teaching that results in learning gains for students" (Yadav, 2011). Also, as ELT is object to constant change, PD help teachers become familiar with new developments in the field and updates their knowledge base, teaching skills, and resources such as the use of technology (Sadeghi & Richards, 2021). Additionally, growths in PD can motivate, energize and empower teachers (ibid), which is particularly useful in times of education in emergencies, since teachers need not only to learn technical aspects of teaching in different modalities, but also psychological factors are essential, such as how to enable social-emotional learning (Darling-Hammond & Hyler, 2020).

## 2.7 Teachers' perceptions

Among all literature concerning ERT, many studies concern stakeholders' perceptions of the phenomenon and its implications (see for example Gautam, 2020; Atmojo, 2021; Juárez-Díaz & Perales, 2021; Nilsberth et al., 2021; Sevy-Biloon, 2021; Türegün-Çoban & Kuyumcu-Varda, 2021; Aktar et al., 2022; Hegler et al., 2022). The importance of addressing the subject through perceptions lies in the importance of perceptions per se, which is discussed in this section.

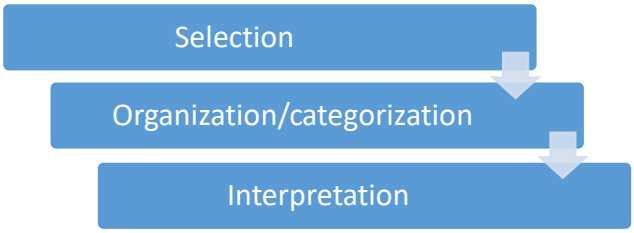
First, it is necessary to define what perception is. The dictionary definition of perception is "an idea, a belief or an image you have as a result of how you see or understand something" (Oxford Advanced Learners Dictionary, 2022); in social sciences, such as philosophy or psychology, perception refers to the process of attaining understanding of sensory information (Qiong, 2017); according to Akande (2009), it is "the psychological ability to process or use information received through the sense organs" (p. 2); and for McDonald (2012), the definition of perception includes a) an individual's or group's unique way of viewing a phenomena, b) involving the processing of stimuli, and c) incorporating memories and experiences in the process of understanding.

From all the definitions above, it can be conclude that perception refers to the particular and unique way an individual sees the world, and according to McDonald (2012), it is never objective and is influenced by many sociocultural elements. Indeed, we perceive the world only from what is known to us and there are as varied perceptions as individuals/groups are.

Perception is a complex process that involves high-order brain mechanisms (Goldstein & Brockmole, 2015), and according to Qiong (2017), it consists of three stages, as seen in Figure 2 below:

**Figure 2**

*Stages of perception*




*Selection.* It refers to the fact that individuals do not perceive the totality of information available to them, but only part of it through a selective process. In other words, we only pay attention to stimuli which we are interested or familiar with.

*Organization/categorization*. After selecting the information, the brain organize things into categories by finding meaningful patterns. This process allows to structure and to give coherence and stability to general knowledge.

*Interpretation.* It is in this stage that meaning is attached to the selected stimuli. Based on different experiences and backgrounds, every person may give different interpretations of the same stimuli, allowing perceptions diversity.

As mentioned before, perceptions are not objective, they are influenced by many factors related to people's background. Particularly, it is universally acknowledged that perception is culturally determined, which means that the influence of culture permeates almost every aspect of our perceptions (Qiong, 2017). The main cultural factors that cause diversity of perceptions are beliefs and values. Certainly, beliefs systems are the basis of our values, which determine what we consider is good or bad, right or wrong, correct or incorrect, and what deserves to be protected (idem). Other cultural factors influencing our perceptions are attitudes, world views and social organizations. In fact, during the selection stage, selective perception limits external stimuli when it is not congruent with the person's beliefs, values or attitudes (Pickens, 2005).

Additionally, as De Lange et al. (2018) state, our prior knowledge and expectations play also a strong role in our perception of the world: when expectations are reliable and

stimuli ambiguous, observers rely more on prior knowledge; conversely, they rely more on the input when expectations are weak and stimuli are reliable.

Hence, the diverse nature of perceptions implies that a single situation, in this case the ERT period, might be perceived differently by different groups or individuals depending on their background. Knowing these perceptions is of great interest due to all the implications that perceptions have.

First, perceptions are closely related with attitudes (Pickens, 2005; Akande, 2009), and lead to action taking (Goldstein & Brockmole, 2015). In this sense teachers' perceptions of ERT can influence their attitudes in class and the actions taken during their teaching practice.

Additionally, there are two effects related with perceptions that affect performance, namely, Galatea and Pygmalion effects. On one hand, Galatea effect is when perceptions of oneself influence self-expectations, and these expectations in turn affect one's performance; on the other hand, Pygmalion effect is when perceptions of others affect our expectations of them, and once those expectations are made known, individuals tend to behave in consistency with those expectations. For instance, when a teacher expects much of their students' performance in online classes, students may respond favorably and fulfill those expectations.

Furthermore, related with PD, studies have shown that taking into consideration teachers' perceptions is beneficial to provide PD that relies on actual needs and preferences of teachers and meet their expectations (Atmojo, 2021; Tafazoli, 2021); Natshwarang et al. (2021) even suggest that perceptions influence the willingness of accommodating new methods of teaching such as e-learning tools. As Pickens (2005) states, understanding how workers (teachers) perceive the world, we are in better position to facilitate a productive workplace.

Having state the importance of knowing teachers' perceptions, it is necessary to consider now how perceptions can be explored in research. In this sense, Mcdonald (2012) propose a mixed methodology approach, since it may yield a richer description of the phenomenon and enhance understanding. In the same vein, in Clifton & Carrasco (2018) it

is suggested that a balance between quantitative and qualitative methods (i.e mixed methods) represent an opportunity to define key design decisions scoping breadth and depth, and it is advised to use different methods of collecting information to capture perceptions in a multi-faceted way, with multiple items to measure each concept to facilitate proper responses.

However, Clifton and Carrasco (idem) point out some issues in measuring perceptions that must be taken into consideration. The first one is the temporal context, since asking the questions when the phenomenon is happening, soon after, or long after (recall question) may result in different outcomes, as very little is known about the stability of attitudes and perceptions over time. The second issue has to do with individual's self-awareness of their feelings and sentiments (related to perceptions) and their capability of articulate them; many times, when being asked or interviewed, participants may have not fully formed a clear opinion or perception yet. Finally, there are also concerns regarding social-desirability bias, that is to say, when respondents fear that their opinions, attitudes or perceptions do not follow the norms or may portray them unfavorably, they might not capture their true feelings in their responses.

Considering all the issues before, it is advisable to take some actions in order to minimize their negative effects. For instance, previous time may be given to participants, as well as a detailed description of the phenomenon in an immersive way in order to help them recall their experiences more clearly. In addition, ensuring the anonymity of participants' responses is essential for ethical issues and for giving them the confidence to speak their minds freely.

# Chapter III: Methodology

In this chapter, the methodological paradigm adopted to address the issue of ERT in this study is presented, and a discussion of its theoretical fundaments is led to support this election. Then, a detailed description of the context and participants is provided. Finally, the instruments used for gathering information, as well as the data collection and data analysis procedures are presented thoroughly.

## 3.1 Design

This study was led in a specific context, concerning a topic that is relatively new for the field, namely ERT. The characteristics of the phenomenon are described from the participants' perspectives, thus, it adopted a descriptive mixed approach, as it uses mainly qualitative data analysis methods along with the use of a qualitative instrument and basic statistics to measure perceptions of the sample group. According to Creswell (2014) and Hernández Sampieri et al. (2014), the combination of both approaches provides a deeper understanding of a research problem than qualitative or quantitative by themselves and minimizes their individual limitations.

On the one hand, the quantitative data of this research concerns teachers' general perceptions of their ERT experiences. Specifically, the extent to which they experienced the different challenges and contributions of ERT found in previous literature is explored, as well as their general perceptions about the institutional response to face education in emergency scenarios. On the other hand, the qualitative data intends to get a deeper insight into those perceptions, identifying their characteristics, hence following an explanatory sequential design (Creswell, 2014).

Additionally, more qualitative data was collected to know administrators' point of view regarding the role of the institution in providing suitable conditions for the implementation of ERT, to complement the information provided by teachers, and to show two different perspectives of the situation. Finally, administrators and teachers' perceptions of the institutional readiness to face future Emergency Scenarios was also addressed.

Since perceptions in this study concern mainly a past event, and considering time restrictions, a cross-sectional design was selected for this work, that is, the data was collected only at one point in time instead of over the whole ERT period (Creswell, 2014)

### 3.2 Context

This study is carried out at the Faculty of Languages at BUAP, one of the biggest public universities in the country, located in Puebla City in central Mexico. This institution has worked fully remotely for almost two whole academic years, in contrast to other universities such as UNAM, or basic education institutions, which re-started operating face-to-face with a reduced capacity almost a year sooner. The main platform used by the University to deliver classes for bachelor programs was Microsoft Teams.

In particular, participants in the study are teachers from the language teaching bachelors' programs (LEI and LEF), which used to be completely face-to-face before the pandemic, and administrators of the faculty. More details about the participants are provided in the section below.

### 3.3 Participants

Among the faculty of the bachelor's programs, the participants of this study are teachers of the semestral plan who were teaching at least one subject in every period from spring 2020 to fall 2021 (summer interperiods were not considered). This was established for two main reasons: a) the spring 2020 period was the one where this ERT started, and fall 2021 was the last period that was delivered fully remotely, and this study wants to explore teachers' perceptions during each stage of the ERT, and b) the semester plan of the bachelor's program is the newest one, hence, it is the one with the most regular students.

Regarding the administrative staff, participants are the director of the faculty, the Academic secretary, the administrative secretary, and the coordinators of LEI and LEF.

It is important to point out that some members of the administrative staff were also teaching during the mentioned period, but to elicit only their perspectives from an administrative point of view, they were not considered for participating as teachers. In addition, teachers who are already retired were excluded from the participants.

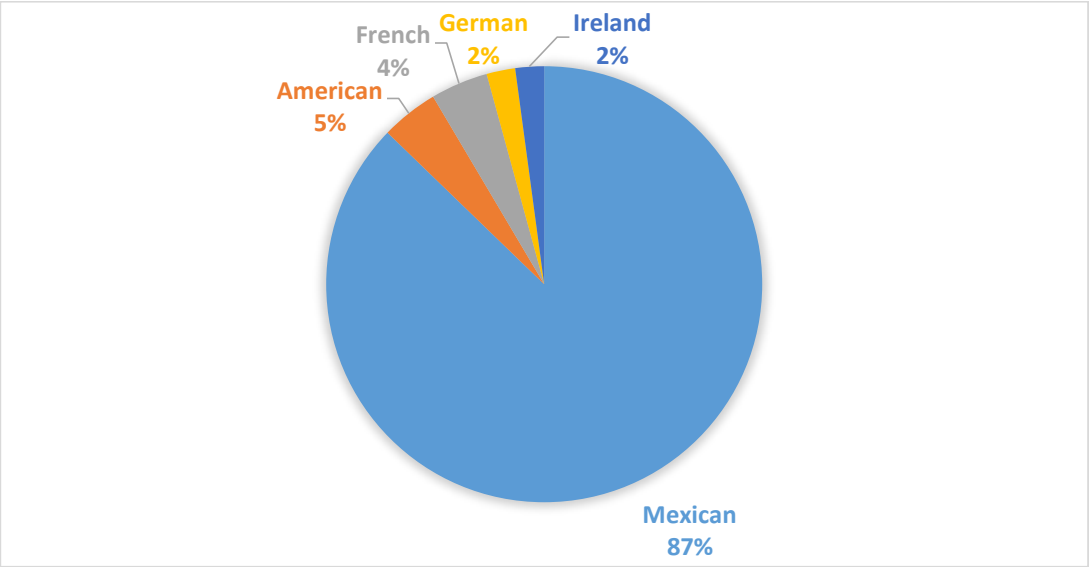
The participants of the first part of the study, that is the questionnaire described in the next section, were 47 teachers, 35 (74.5%) females and 12 (25.5%) males, from which 7 of them (5 females and 2 males) also participated in the interviews of the second part of the

study. Although the proportion of females/males seems to be unequal, we consider that it is representative, as the community of the Faculty has longtime been predominately female.

The nationality of the participants is mostly Mexican (87.2% or 41 people), but there were also participants from the United States (4.3% or 2 people), France (4.3% or 2 people), Germany (one person), and Ireland (one person) (See graphic 1 below)

**Graphic 1**

*Participants nationality*




Regarding the age of the participants, they were represented in table 2 below.

**Table 2**

*Age of participants*

| Age | Participants | Percentage |
|---|---|---|
| From 31 to 40 | 5 participants | 10.6% |
| From 41 to 50 | 17 participants | 36.2% |
| From 51 to 60 | 19 participants | 40.4% |
| From 61 to 65 | 4 participants | 8,5% |
| More than 65 | 2 participants | 4.3% |

In regards to their professional profile, 76.6% of participants (36 people) have a Masters' degree, and the rest 23.4% (11 people) have a PhD degree.

As for the years of teaching service, they are represented as seen in table 3 below.

**Table 3**

*Years of service*

| Years of experience | Teaching service in general | Working at BUAP |
|---|---|---|
| 1 to 5 years | --- | 2.1% (one person) |
| 6 to 10 years | --- | 10.6% (5 people) |
| 11 to 15 years | 10.6% (5 people) | 17% (8 people) |
| 16 to 20 years | 21.3% (10 people) | 19.1% (9 people) |
| 21 to 25 years | 19.1% (9 people) | 17% (8 people) |
| 26 to 30 years | 25.5% (12 people) | 29.8% (14 people) |
| More than 30 years | 23.4% (11 people) | 4.3% (2 people) |

Finally, it is important to mention that 13 participants declared already having experience teaching online before the COVID-19 for a varying time from 2 to 11 years. Among them, 12 declared having received training for online teaching, which consisted mainly in courses for the use of technology and platforms. Some examples given by teachers of the training received are:

- Teaching
- Material design
- Platforms: Blackboard, Moodle, Teams
- Technological tools: Genially

### 3.4 Instruments

The instruments used to collect the data are described as follows:

1. A questionnaire was used to address teachers' general perceptions of ERT. According to Hernández Sampieri et al. (2014), questionnaires are the most utilized instrument for social phenomenon, and they can be used to evaluate perceptions and

attitudes. The questionnaire used for this work was first piloted with CELE teachers, and it was validated by a researcher of the Faculty of Languages through the SPSS software, reaching a .95 of validity. It consists of 5 different sections (see Appendix 1), which are the following.

a) The first section collected the general information about participants, which was described in the *participants* section above, such as age, nationality, study degree, years of service, years teaching in the institution, and whether they had previous experience teaching online.
b) The second section consisted of three open questions that intend to elicit the general impression of teachers about ERT and the support received from the institution.
c) The third section addressed the challenges faced during the period of ERT. Through a likert scale table, including the most frequently presented challenges in literature, participants indicated the frequency, on a scale from *never* to *very often*, in which they experienced those challenges. Additionally, it was included an opened ended question in case they wanted to add more challenges they could have experienced and were not mentioned in the table.
d) The fourth section addressed contributions of ERT. Based on the contributions reported in previous studies, 14 Likert scale items composed this section. These items intended to know the level of participants' agreement (from completely disagree to completely agree) to each one of those contributions. As in the previous section, an open-ended question was included for participants to add any contribution they might have noticed that was not mentioned.
e) Finally, the last section included participants' attitudes and perceptions towards ERT through every stage of this period. It consists of 4 multiple choice questions referring to a specific period of ERT, namely, the moment of the announcement of ERT, the shock of the first semester, the periods of fall 2020 and spring 2021, the fall 2021 and spring 2022 semesters, and 2 more questions about their stance towards the coming back to face-to-face classes and their general perception of the long ERT period. For each question it was included an

*other* option where participants could write their own answer in case the options provided did not fit with their opinion.

2. A semi structured interview with selected teachers to explore in depth the 'how' and 'why' of the questionnaire results (Pollard, Nabavi, Lyon , & Bravo , 2015), as well as to know their perceptions about the readiness of the institution to face new similar scenarios was also used. This interview (see Appendix 2) was revised by expert researchers and piloted with one of the selected teachers.
3. An interview to the faculty administrators was used to explore their point of view regarding the actions taken by the institution during this period and its preparedness for future ERT scenarios. For this interview (see Appendix 3), the semi structured guide was revised by an expert researcher with previous experience in conducting interviews, in order to evaluate its pertinence and validity.

It is important to note that the questionnaire and the interviews were conducted in Spanish, the mother tongue of most teachers and the lingua franca for some of them, who have a proficient level of language. This is because the participants form the LEF program do not necessarily speak English fluently, and to access the inner voice of participants more easily and let them speak their minds (Zacharias, 2016).

### 3.5 Data collection

For the collection of data, the 73 teachers that met the requirements for participating in the study were first required to answer the questionnaire, which was delivered through a Google forms format for practicality, and some copies of the questionnaire were printed for those teachers who would prefer that modality (5 teachers). The questionnaire was sent via email and Whatsapp, as well as the hard paper copies handed during the month of April, and participants had around 2 weeks to answer. After that period, we received a total of 47 answers, which was therefore our sample.

After analyzing the questionnaire responses, teachers were selected to participate in the phase of interviews, considering first their previous experiences teaching online and their general perceptions (weather they were more positive or negative), to have a varied sample. There were also considered their previous shown availability and the degree to

which they expressed openly in the questionnaire, because some of them had already explained in more detail their experience. 27 teachers were selected and asked via email to participate in these interviews, obtaining favorable responses from 7 of them, which participated in the interviews in arranged times between May and June.

Around the same time, individual interviews were conducted with the administrators of the faculty, to explore more in-depth, and from their point of view, the actions taken by the institution during this ERT period.

### 3.6 Data analysis

Considering that the present is an explanatory sequential design, quantitative data from the questionnaires will be analyzed first to select the participants for the next phase of the research, and to select the qualitative questions to ask participants in the interview phase to delve deeper into the results (Creswell, 2014).

The quantitative data served to identify the general perception of ERT among teachers of the faculty through the different stages of the phenomenon, as well as to know the main challenges and contributions reported. For this purpose, the Google forms app was particularly useful, as it presents the results already in the form of graphics, which makes the interpretation of the results more easy and understandable. Those graphics were presented and explained in the results section.

After collecting and analyzing the quantitative data, participants were invited to take part in the interviews. As mentioned before, a total of 12 interviews were conducted, 7 interviews to teachers and 5 to administrative staff members. Those interviews were transcript with the aid of the program *Transkriptor*. Once the interviews transcript, a content analysis was carried out by underlying and identifying themes in common, which were then organized in different categories. Those categories were representative to answer each one of the research questions, for example, *the level of teachers' satisfaction with the actions taken by the institution to face the ERT period.*

When presenting the information obtained through the different instruments, the following codes were used:

P: for the declarations obtained from the questionnaire

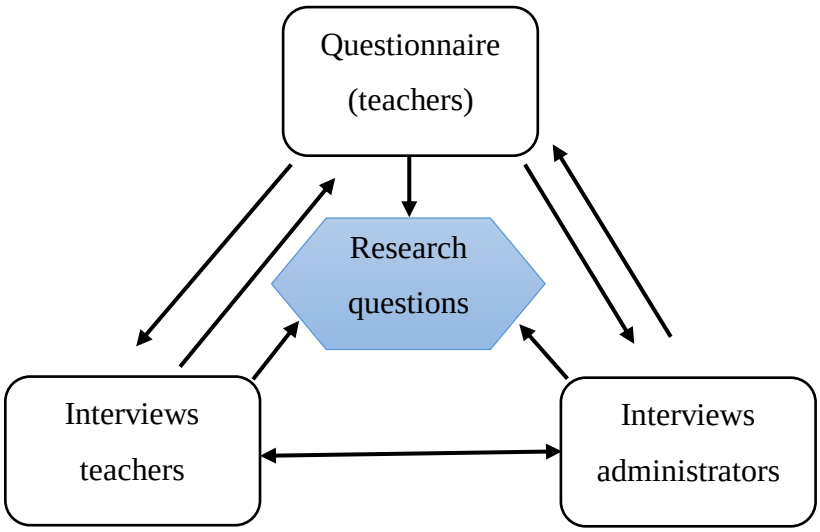
T: for the declarations obtained from the teacher's interviews

S: for the declarations of the administrative staff.

Finally, a discussion was led, pointing out how qualitative data help explain the quantitative results and then, all data was triangulated and presented in four different sections, that correspond to each one of the research questions concerning this study. In figure 3 below a scheme of the triangulation process is provided.

**Figure 3**

*Triangulation process*




*Note: Own source*

# Chapter IV: Results and discussion

This paper addresses the issue of ERT from the perspective of teachers and administrators from a public university in central Mexico. In this chapter, the results of the study are presented thoroughly. To do so, quantitative and qualitative results will be grouped in four main themes, which are the following:

a) Perceptions regarding the Emergency Remote Teaching
b) Challenges and contributions of ERT
c) Institutional response and actions to face ERT
d) Perceived institutional readiness to face future emergency scenarios.

These themes correspond respectively to each one of the Research questions of the study, hence, this organization helps to easily answer them through the discussion, in which the qualitative findings complement and explain the quantitative ones. The following sections describe these results.

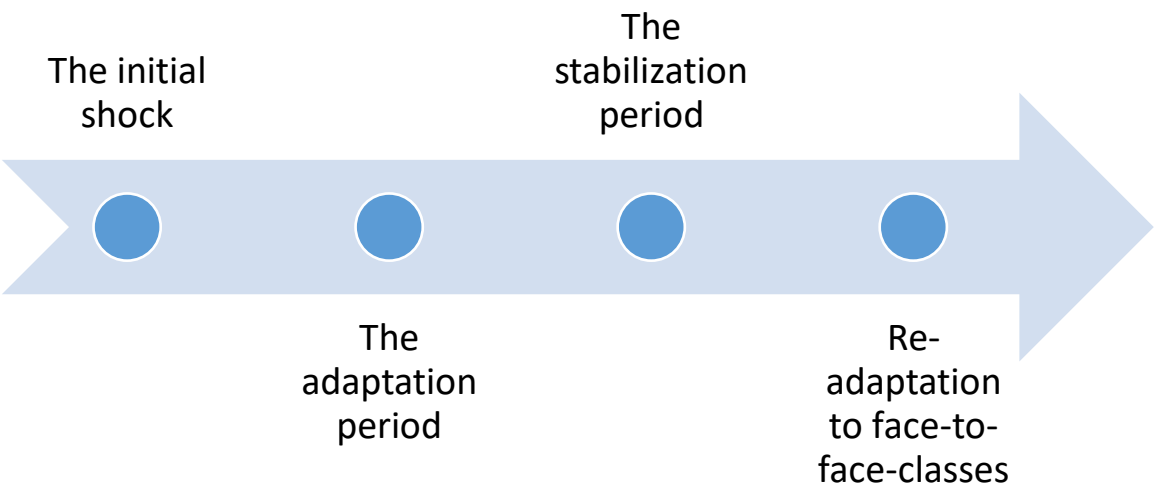
## 4.1 Perceptions regarding the Emergency Remote Teaching

The COVID-19 pandemic and the Emergency Remote Teaching was an unprecedented event that stroke education worldwide. However, it was experienced in different ways by stakeholders depending on their particular context. In this section, the perceptions of teachers and administrations of our faculty of languages towards this phenomenon is presented. Perceptions in this work considered experiences, feelings, opinions, and/or stance towards the online modality in the different phases of the ERT period.

Certainly, since the period of ERT at the faculty of languages was two years long, stakeholders' perceptions were not necessarily the same during the different semesters this period lasted. Hence, for a better understanding of the evolution of these perceptions, in this section were grouped by temporal phases (see figure 4)

**Figure 4**

*ERT phases*




Note: own source

Each of these phases are explained in detail in the following sections, as well as the retrospective perceptions of the overall experience describer by the participants.

### 4.1.1 The initial shock (spring 2020)

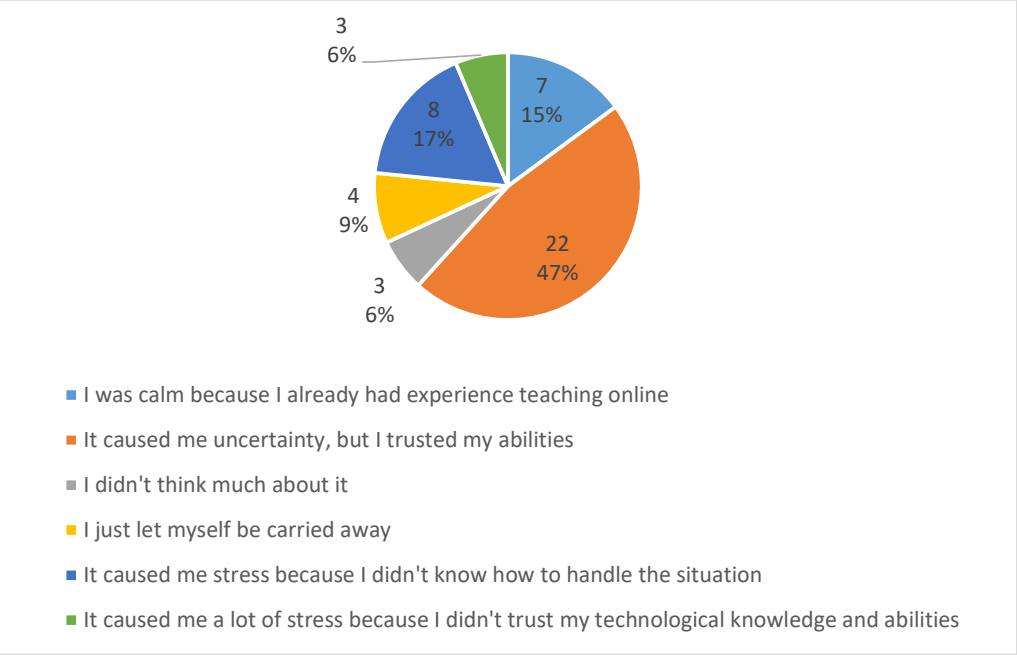
The period of ERT began in March 2020, when the school closures were announced in the whole country. At the same time, the BUAP was facing a difficult situation where classes had been suspended due to a students' strike. This situation had already provoked difficulties and concern, as it can be seen in the following declaration:

> T5: …porque muchos de nosotros ya habíamos tenido una pausa. No sé si recuerdas que hubo un paro estudiantil. Entonces estábamos ya bien preocupados.

Once the activities started returning to normal, the announcement of new closures due to the pandemic was received by teachers in different ways, as it can be seen in the Graphic 2 below:

***Graphic 2***

*Moment of the announce*

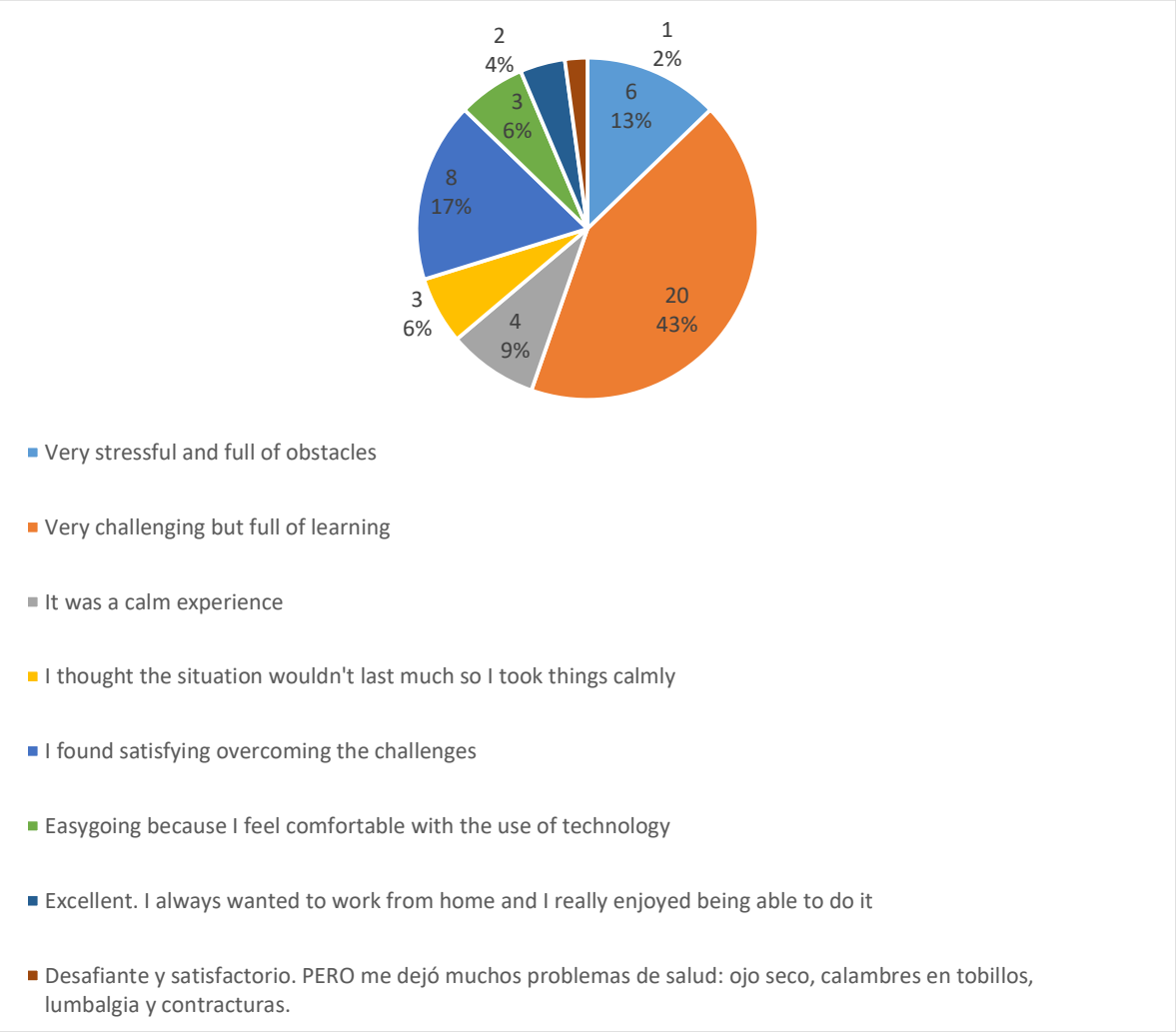



With the announcement of the closures, the majority of teachers experienced emotions like stress (23%) and uncertainty (47%), even though many of them trusted their abilities. A small percentage (7%) declared having been calm due to their previous experience teaching online.

During the first semester of lockdown in spring 2020, most of the teachers found the situation challenging (73%) or stressful (13%), while the rest were rather calm and comfortable. However, it is worth noticing that even among all the challenges, teachers felt it was a period full of learning (43%) and they even experienced satisfaction when overcoming the challenges (17%). (See graphic 3 below)

**Graphic 3**

*The beginning. Spring 2020.*




These results correspond with the findings of the interviews, were teachers described the difficulties and challenges they faced during this first period, which concerned mainly the struggles they had adapting their courses, designed to be delivered face-to-face, to the online modality, considering all their technological limitations. Indeed, many of the interviewees mentioned the difficulties they had adapting to the platforms, leading to work overload, anxiety, and stress. In fact, by this initial stage of ERT, teachers had to use whatever tools and platforms they had available, being *Zoom* the most popular, but also including *Google Meet*, and even *WhatsApp* to give their synchronous lessons, as it can be seen in these declarations from the administrative staff.

> *S1: Cuando se retomó lo de las clases en línea, empezaron a dar sus clases vía Whatsapp. Casi eran pláticas, ¿no? lo que hacía el maestro ahí, eran diálogos ahí escritos, nada más. La interacción era así, a ese nivel.*
>
> *S4: …al principio sobre todo, nos dejaron trabajar libremente, por ejemplo, cada quien podía, eh… alguien podría estar en Zoom, en Google, este… en Zoom, otro en este… ¿cómo se llama el otro? Meet… en fin. Como tú quisieras ¿no?, o sea, había libertad.*

As for the rest of the tasks, such as delivering assignments, some of them used E-mails, *Facebook* or platforms such as *Edmodo*, *Moodle* or *Classroom.*

Since not all of these tools/platforms are designed specifically for academic purposes, and some of them have some restrictions when using the free version, added to the fact that teachers did not know how to use them, teachers struggled with the organization and revision of the assignments, with class fluency because of time limits (i.e in Zoom), and with the materials used for their instruction, so they limited themselves to only exposing contents, or in some cases did not even gave their classes, affecting students' learning. This can be noticed through the following interviewees' declarations.

> *T1: Yo inicié con la plataforma Zoom y pues no sabía utilizarla. Tuve que ver algunos videos tutoriales en Youtube […] Bueno, poco a poco aprendí cómo se utilizaba la versión gratuita que se cortaba cada 45, 50 minutos. Entonces, también ese era un problema. […] Fue bastante caótico, el hecho de pasar a la modalidad en línea. Y sí se vio pues muy limitado lo que era la interacción, y probablemente el aprendizaje.*
>
> *T5: …supe de casos de profesores que justo nunca habían utilizado Teams, nunca habían utilizado Zoom, y fueron aprendiendo junto con el alumnado, entonces, yo escuchaba de profesores y alumnos que decían, "no, pues es que no, la clase no se da, no hay una sinergia entre los contenidos… el profesor tampoco lo sabe manejar".*

Among the teachers participating in the interviews, T5 was the only one who had previous experience giving online courses. However, she also declared having to adapt her instruction into a more *traditional* one, with the use of digital boards as if it was a physical classroom, because her students were too dependent on that kind of visual support. Besides, the students were not technologically prepared with a strong internet connection allowing to share the material she used to use in her previous experiences, where her students were all fully equipped. This difference in students' preparation compared with her past experience resulted in her also struggling in some aspects, such as having to explain students of every course the use of the different tools, but she declared that that experience did help her during this period, as at least she knew how to use the platforms and technology.

Regarding the other interviewed teachers, their experience with technological tools for teaching was very limited. For example, T4 and T7 declared having used interactive material such as videos, or platforms such as Moodle or Schoology, but just as a complement, a data base, or a site were students could deliver some assignments. Moreover, T2 mentioned being aware of the availability of courses for the use of platforms and digital tools for teaching before the pandemic, however, she was not interested in taking them as she was comfortable with her traditional teaching.

Interestingly, T2 declared, however, finding stimulating all this situation of the shift to remote teaching when she was informed about it. That is likely the reason why, unlike her fellow teachers, she had a satisfactory initial experience, where students were motivated, participative and engaged, since her positive perception and attitude may have influenced her behavior and the one of her students, which responded reciprocally (Goldstein & Brockmole, 2015).

> *T2: estaba yo estimulada, realmente estaba emocionada. Y…. así funcionó el semestre. En realidad fue… fenomenal. Los alumnos respondieron muy bien, veníamos trabajando de una manera presencial como muy acorde. Cuando nos pasamos a la modalidad virtual, encendían sus cámaras, participaban, tenían esa motivación, era como una experiencia nueva, y… bueno, no era* como, *ERA una experiencia nueva, y entonces, todos estábamos emocionados.*

Nevertheless, as we will see in the next sections, T2 eventually also realized her own weaknesses and opportunity areas and started having some difficulties with her performance and the one of her students.

### 4.1.2 The adaptation period (fall 2020)

After describing how participants lived the initial shock of this ERT period, we pass now to the phase of adaptation, which involves mainly the fall 2020 semester and part of the spring 2021.

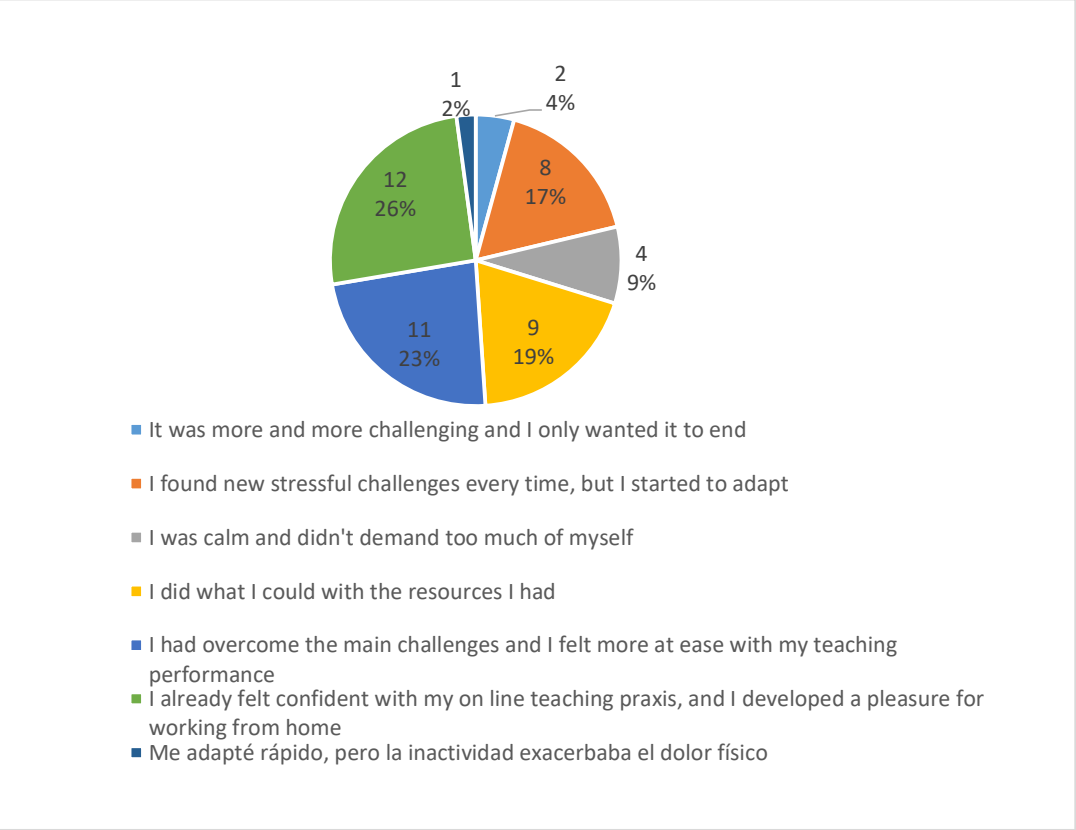
According to teachers, in the year 2020 the authorities decided to extend the Spring semester and not to offer the summer inter-period courses, so they could prepare better for the fall semester, which was going to be also online. Therefore, this semester of fall 2020 was the first one that started and ended in a remote modality.

We can observe (graphic 4 below) that during this adaptation period, teachers' answers declaring still having to face challenges that caused them stress reduced

considerably, being only 21% of the answers, 17% declaring starting to adapt, and 4% declaring only wanting the period to end. On the contrary, more than half of the teachers signaled that they were adapted (2%), more at ease (23%), or confident with their teaching (26%); they had overcome the main challenges, and some of them had even developed a liking for the remote work. As for the rest, 28% of the participants showed a more neutral position, where they limited to do what they could, without demanding too much to themselves.

**Graphic 4**

*Fall 2020 – Spring 2021*




This change compared to the first semester can be explained through the circumstances described during the interviews. Certainly, as new as this whole situation was, it was surrounded with all kinds of uncertainties, particularly on how long it would take. This uncertainty provoked that the response was slower than desirable, as one of the administrators said:

*S2: La incertidumbre de cuánto iba a durar hizo que no se respondiera tan rápido como hubiéramos querido.*

This perception of late response can also be found among teachers, with comments such as:

*T7:… ya para otoño 2020 es cuando la Universidad se pone las pilas.*

*P23: …la respuesta de la institución fue un poco tardía en la habilitación de las plataformas educativas.*

From these declarations, and the ones presented in the section above, we can see that during the first semester, the institutional response was mainly limited to let teachers use what they could. Then, in fall 2020, one of the things that made a big difference was the standardization of the use of Microsoft Teams as the official platform and the courses offered to learn how to use it, which was mentioned by all the interviewed teachers and some of the administrators.

Thus, with the implementation of the use of this platform, teachers finally had a place where they could have their assignments organized, as well as give their classes synchronously with the possibility of registering them if necessary. Besides, they got their courses created with the list of students already charged on the system, which represented an important reduction of work, as mentioned by T3 and T5:

*T3:… al principio yo tenía que ingresar uno por uno los… cada alumno, y después ya nos ayudaron en que ya estaba hecho el grupo, o sea, ya había un equipo dedicado, y entonces tú abres la plataforma y ya están ahí tus alumnos y dices "¡ay qué maravilla!" ahí te ahorrabas… 40 horas de trabajo.*

*T5:… entonces ya era, nada más era cuestión que nos dijeran "acepta tus estudiantes porque ya están invitados a la clase" y todo, realmente ya no hacíamos nada, en ese sentido, y ya nada más era cuestión de, de llenar con contenido*

In general, teachers mention this was an adaptation period of learning and improvement, and they started feeling calmer as they were now receiving training on how to properly use a platform (Teams) for teaching.

*T7: …fui también puliendo la manera en que yo veía las clases en línea, en como yo me sentía retada, ¿no? a cómo mejorar esa interacción con los chicos, porque nunca los vi en mi vida. Jamás abrieron cámara. Y… y fue adaptarme, fue un semestre de adaptación para todos.*

*T4:… cuando llegaron los cursos (Teams), yo lo agradecí muchísimo, porque ya tenía una forma de, ahora sí de ganarme el pan honestamente, y no estar jugando que daba clases, o sea, porque, a veces les decía "es que no he acabado de, de corregir, de revisar los correos, denme otro día ¿no? nos vemos la próxima semana", o sea, eso no*

*se hace. Pero bueno, lo hacía. Entonces, sí, sentí que la… nos ayudaron con, con enseñarnos cómo hacerlo.*

In the particular case of T2, who had started the ERT period with a positive attitude and a good dynamic in class, started now noticing some problems with her new groups during this phase, which she attributed to the lack of interaction with students. She explained that, whereas in Spring 2020 she got to know her students before the shift to the remote modality and could maintain the class dynamic, with the new groups the lack of interaction made it difficult for her to recognize her students and remember their names, affecting communication and dynamics in class as well. She then started analyzing her online teaching, and found some opportunity areas which push her to search for more digital and interactive tools to use in her classes (see the quotation below)

*T2: …acto siguiente vino otoño […] en mi caso, sí hubo como colapsos, ¿Por qué? Porque realmente ya ahí sí sentí el peso de no conocer personas, porque eran grupos nuevos, entonces, cómo me estaba adaptando, cómo trabajaba con ellos, la comunicación, etcétera, etcétera. Entonces, ahí fue el punto como de quiebre para mí. […] Eh… es ahí donde me doy cuenta de mis deficiencias, de mis áreas de oportunidad que debo de trabajar, justamente para el uso correcto de estas plataformas. Comienzo a notar que uno de los factores importantes, es que me limitaba sólo a la mera exposición de contenidos, a uso limitado de herramientas, que son Power Point, Prezi, Canva. Entonces, en realidad mis presentaciones eran básicamente, convencionales, ¿no? Después, descubrió otras herramientas, que son Kahoot, que bueno, que son… herramientas digitales más interactivas y que paulatinamente empezaba a usar.*

As it can be seen through the findings in this section, after the first months of ERT, teachers' experience in general showed an improvement, since they started adapting to this modality and learning how to use the platforms and digital tools necessary for delivering their courses remotely. The availability of an educational platform (Teams) that they could use for free and the fact that they were now more prepared to deal with these circumstances reduced considerably feelings such as anxiety, concern and uncertainty.

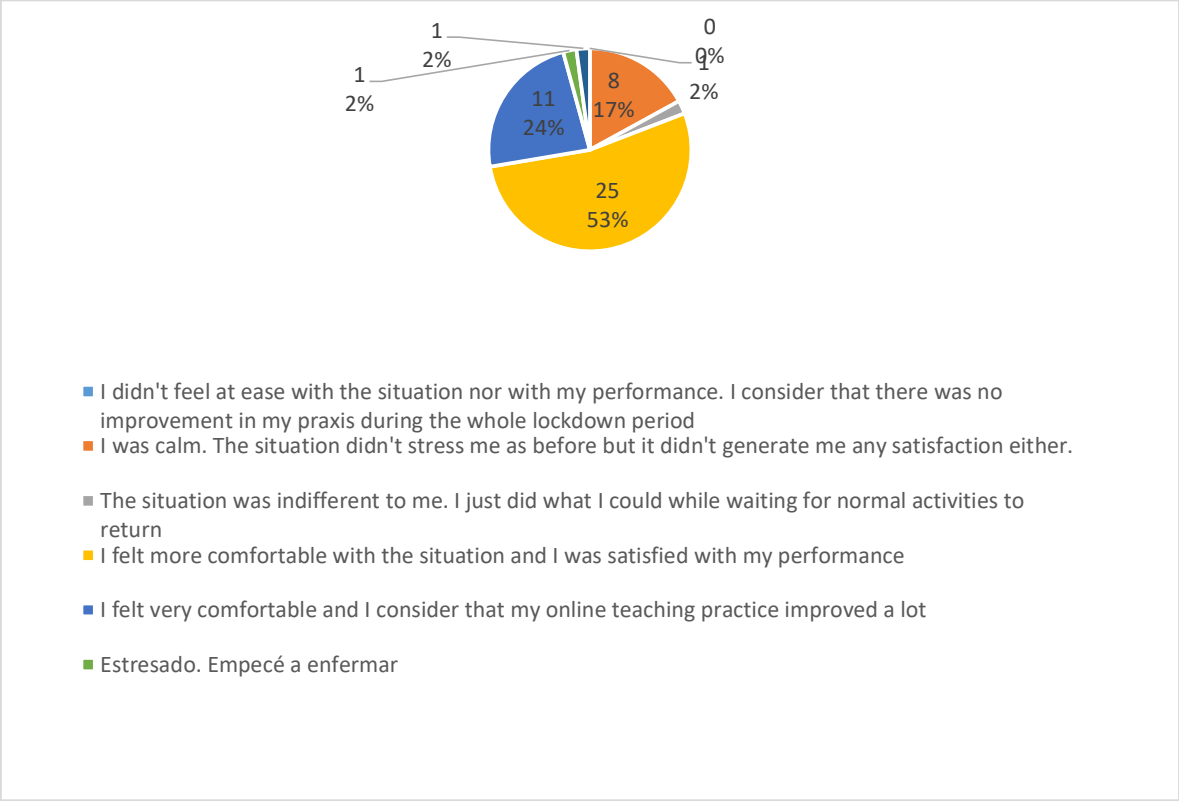
### 4.1.3 The stabilization phase

In the previous section, we saw how teachers started learning how to manage their remote courses, and how they started, in general, feeling less affected by the situation. In this section, the experience of teachers during the next semesters, which we call *the stabilization phase* is described. This stage is characterized by a feeling of *normality* and having all *under control*, after the initial shock and all the learning presented in the previous stages.

By this stabilization period, which occurred during fall 2021, the experience of teachers regarding ERT was mainly positive (see graphic 5 below); 53% of the participants declared feeling comfortable and satisfied with their performance, and 24% even felt very comfortable and considered their teaching practice had improved. For 17% of the participants the situation did not represent any satisfaction, but they were now calm. As for the remaining minority, one participant (2%) was indifferent to the situation, and the two left (4%) mentioned health issues caused by the situation. This shows that almost all participants (94%) had overcome the challenges presented during the first stages and did not experience the stress, anxiety and uncertainty anymore, even if 17% still did not completely like that remote modality.

**Graphic 5**

*Last semester: fall 2021*



In accordance with these results, the findings from the interviews show that, after all the learning from the adaptation period, teachers felt a huge improvement in their remote practice and developed new competences. For example T2 and T5 declared:

> *T2: empecé a encontrar la manera de cómo trabajar con esta modalidad virtual, y así fue que logré adaptarme, logre también mejorar, desarrollé otras habilidades, las competencias digitales. […] Sí, me queda muy claro que, lejos de tomar o poner eso como algo, mmm… vamos, malo, ver lo negativo… lo triste, me ayudó a mejorar, y me sentí mucho mejor, y los estudiantes también, respondieron muy bien ¡eh! […] mi actitud cambió también, la actitud de los estudiantes. El ambiente fue muy diferente.*

> *T5: Creo que ya al final de la pandemia, o sea después de 1 año, ya, todo funcionó súper bien*

Moreover, teachers mentioned having noticed their work overload problems diminish because they learnt how to organize themselves, the authorities reduced their demands of evidence, but above all, because with the implementation of Teams and the use of its features the obtaining of evidences was simpler and less time consuming, as seen in the following declaration:

> *T5: [Teams] es una herramienta que permite todas estas gestiones, y además el monitoreo del sistema, porque eh… llegó un momento en que esas evidencias famosas que nos pedían, ya no las tenemos que subir, solamente bajábamos un registro de Teams en el que hablaba acerca de cuál era la actividad real que teníamos en plataforma. Entonces la bajábamos, y la subíamos… era un reporte completo, y ya no hacíamos nada, entonces, fue una excelente herramienta*

However, it is important to mention two contributions of interviewees who did not had a completely good experience during this stage; one of them mentioned that this was also a stagnation period for some people, who were not interested at all in continue learning or in the online classes in general. She said this was probably caused by the pandemic context and not by the online semesters per se, but she felt frustrated by this situation:

> *T5: Creo que yo también empecé a frustrarme mucho, porque ese tiempo que dedicaba en darles como la capacitación, pues ya la gente ya ni la tomaba, o sea, no, no le importaba, […] Ya la gente no quería poner atención ni nada. Entonces eh… no le quiero echar la culpa a los semestres, sino a la pandemia. El desarrollo de la pandemia fue lo que hizo que cada vez la gente tuviera menos… interés en las clases en línea.*

Besides, another teacher mentioned that by this semester he felt already comfortable but he never get to like completely the remote modality.

> *T6: llegué a sentirme cómodo al final, pero no, nunca me gustaba, porque creo que es mucho mejor dar la clase… clase presencial es mucho mejor*

Taking into account these last contributions along with the general experience related by all teachers, it can be said that, even if some few teachers never get to like the remote modality, and the difficult pandemic context provoked that some people also lost interest in online classes, by year 2021 teachers felt comfortable with their performance and they reached a phase of stability where they already knew how to handle the different situations inherent to the online modality of teaching. They knew what to expect and how to react, or as T7 said: "*yo ya me sentía más tranquila, o sea, yo ya sabía a lo que iba, yo sabía a lo que le tiraba.*"

### 4.1.4 Re-adaptation to face-to-face classes

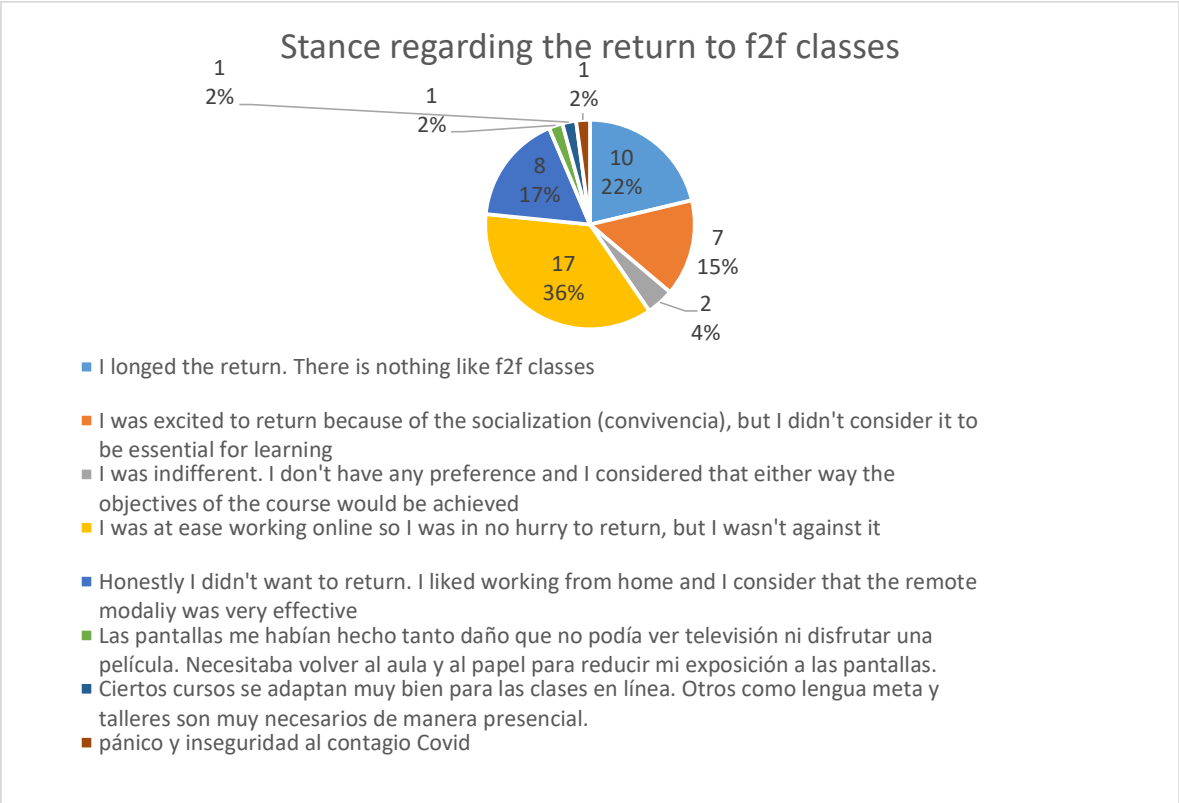
After the stabilization stage seen before, in early 2022 was announced the staggered coming back to face-to-face classes. Results from the questionnaire show that, in the face of this news, teachers' stance regarding this returning was varied (see graphic 6 below).

As the graphic shows, 36% of participants signaled they were not against coming back but they were in no hurry to do it either, because they were at ease working online; 24% indicated that they longed the return because there is nothing like face-to-face classes (22%) or because they needed to reduce the exposition to screens because of health issues (2%); 19% did not want to return because they liked working from home and considered the remote modality was effective (17%) or because they panicked about getting infected with COVID-19(2%); then, 15% indicated being excited about the returning because of social reasons but did not considered it to be essential for learning; 4% did not have any preference between online and face to face lessons so they were indifferent about it; and finally, the 2% left indicated that the returning was necessary for some courses but the others were well adapted for online lessons.

In summary, these results indicate that, while 43% of teachers had one specific preference between f2f and remote classes, namely 24% longing for f2f lessons and 19% not wanting to return, most teachers (53%) had a more neutral stance regarding these 2 modalities, not having any preferences between both, or even acknowledging the advantages and disadvantages of them.

***Graphic 6***

*Stance regarding the return to face-to-face classes*




Based on these results, it can be said that even if some teachers always wanted to return to the “normality”, for some of them this returning represented a new challenge, just as the shift to the remote teaching was two years ago, since they had already adapted to this modality of work.

This can be confirmed by the findings of the interviews, were teachers described how the returning to face-to-face classes caused some difficulties among them and their students. For example, T5 declared having suffered of extreme fatigue and a sort of anxiety when having contact whit people for all the first semester after the returning, making her to want to return to *her online modality*. She also declared having discussed with some of her fellow teachers and having discovered that they also felt exhausted only by having to leave home and do their activities in a classroom. In the same vein, T2 and T7 mentioned that the coming back represented a new period of adaptation also for students, as we can see in the following declaration:

> *T7: creo que a muchos de los alumnos les costó trabajo volverse adaptar a las clases presenciales. Ahora por lo opuesto: porque es más cómodo estar en casa, porque no te asoleas, no te cansas, no te estresas en el tráfico, porque llegas a tiempo, por qué no gastas mucho dinero, porque tienes para comer… Qué sé yo. Muchos de los alumnos foráneos me han dicho eso, que preferirían seguir en línea.*

It must be said, however, that T7 also declared that this return divided the opinions, as a majority of students were comfortable with *presentiality:* they were motivated, participative, and excited of coming back to the classrooms. This duality of opinions and attitudes correspond with the results of the questionnaire, showing that also among the student community there were those who absolutely wanted to come back and those who were satisfied with the remote modality and did not want to return.

Nevertheless, independently of teachers' and students' stance towards any of the both modalities, it is important to mention that besides the need to readapt to the inherent conditions of face to face classes such as the schedules or the transportation, teachers had to face whole new challenges directly related with the consequences of the ERT, particularly, the lag in students' language level, that was perceived by teachers as very notorious. This can be seen in the following declarations of a teacher and a member of the administrative staff:

> *T7: Yo tuve alumnos que los conocí presenciales. Cuando fueron de manera virtual, su nivel bajó. Pero bajó… sustancialmente. Termina la pandemia, los vuelvo a tener. Ya no en una lengua meta, sino en otras materias, y… de verdad las secuelas pandémicas sí pesan. Porque el estudiante, por más que quería cumplir con tareas, escuchar, estar atento, etcétera, etcétera, no logró desarrollar esa competencia que se espera, como un B1/B2. Estaba en un A2.*
>
> *S4: hubo un rezago, yo lo, lo siento como coordinadora, y bueno, todos los docentes lo decimos, al menos en LEF. Pero… la cuestión del francés, yo creo que lo que más le pegó la pandemia a nuestros programas es la cuestión de la interacción, entonces el idioma se vio muy afectado*

This perception of decline in students' language level is opposed to teachers' perception of the effectiveness of remote teaching, showed in the results of the questionnaire above (graphic 5). This might be due to the differences in the instruction of language courses and content ones, (which will be discussed in the next section) since, as far as this researcher knows, almost all of the teachers who indicated that online courses were effective and suitable for achieving instruction objectives only gave content courses by the last stages of the ERT. Indeed, one teacher mentioned that the subject of target language and the language workshops needed to be taken face to face.

In any case, the fact is that returning to the traditional face to face modality, in general, represented a new period of adaptation for teachers, considering the long time they spent in the remote modality.

Having presented the experiences and perceptions of teachers in each one of the phases of ERT identified in this study, in the next section teachers' general perceptions of the ERT period as a whole is addressed.

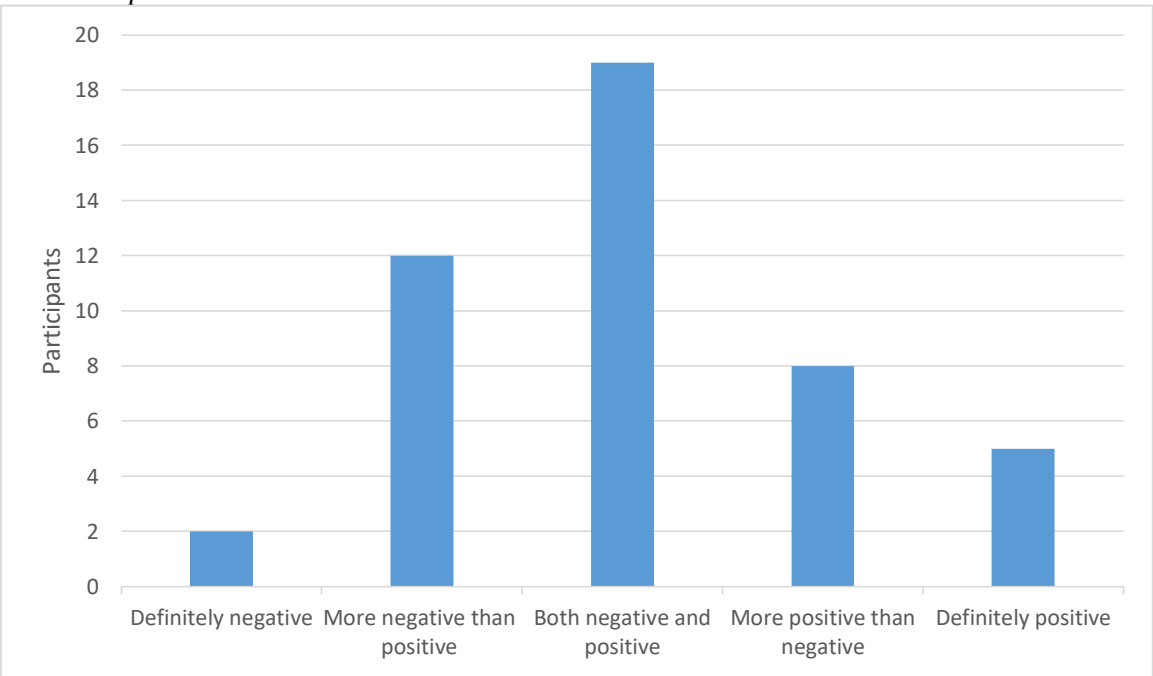
### 4.1.5 Overall experience

Considering that this study was carried out almost a year after the ERT period has finished, teachers' general perceptions of this phenomenon could be addressed in a retrospective way, which is going to be presented in this section.

As mentioned in the methodological chapter, in the last section of the questionnaire teachers' summed up perception of the period was asked in terms of if it was a positive or negative experience (To see the details of the options of answers please refer to the appendix 1) Results are shown in the graphic 6 below:

**Graphic 7**

*General experience*



As it can be seen in graphic 7 above, the experience of ERT was seen as both, positive and negative by teachers: while only 2 participants saw it as only negative and 5 participants as only positive, the rest found positive and negative aspects in different degrees. This results correspond with the declarations of teachers in the open ended part of the questionnaire, in which the answers varied mentioning positive aspects and negative ones of the experience. In particular, the answers describing an evolution of the situation from bad to better were predominant, for example:

> *P3: Al principio, frustrante y acelerada. Luego fui aprendiendo y tomando más confianza, me pareció cómodo, al final.*
>
> *P18: En mi experiencia, en un inicio fue algo desesperante ya que no contábamos con conocimiento en plataformas. De la misma forma, los alumnos no sabían trabajar con plataformas básicas. Al paso del tiempo, me fui sintiendo más cómoda con el uso de diversos recursos tecnológicos.*
>
> *P34: I found the experience to be multifaceted in regard to positive and negative aspects. I didn't want to do teach online, and I resisted it. When I accepted that it was going to happen, I found that I was preparing far more sophisticated materials, using online teaching resources like zoom and google classroom quite effectively, and that generally, it was much easier to use multimedia inside the "classroom" with the screen and audio sharing options.*

Furthermore, the findings of the interviews validate these results, as the interviewed teachers described many challenges faced, especially during the first stages of the ERT, and some consequences of it, but they also declared having benefit from the experience. In fact, some of them even declared finding this period positive, as in the examples below:

> *T4: Creo que, que al final fue bueno este período de, de prueba ¿no? de capacidades, de competencias, retos propios de, de cada uno, que pasó en la pandemia.*
>
> *T7: entonces… sí, creo que han sido ventajas. Yo le veo más ventajas, ¿sabes? Es que a mí sí me gusta la, la virtualidad. […]  Hubo aprendizaje de que hay cosas que se pueden hacer en línea.*

In general, the main reasons why teachers considered that this period was positive or had a positive side were related to the learning it brought, such as the use of new technologies, digital tools, online strategies etc. as it can be seen in T7's quotation above and in the perceived contributions which are to be addressed in the next sections. Nevertheless, it is important to notice that teachers also acknowledge their position of privilege in this situation, which precisely made possible all this learning. This privilege

included the resources of the institution that allowed the availability and free use of platforms such as Microsoft teams, the access to technological devices and a good/acceptable internet connection, and in some cases the added fact of knowing that they were secure during the health emergency because they did not have to go out for work. Additionally, teachers of public institutions were among the few people who did not lose their jobs and still counted with their usual revenues, which allowed them to focus on the improvement of their teaching. This can be noticed in the following extracts:

> *T4: Pero bueno, trataba de hacerlo [adaptarse al trabajo que conlleva revisar cosas en línea], porque… me seguían pagando, o sea, yo era de las afortunadas que todavía tenía un empleo y que no tenía que preocuparme por eso.*
>
> *T7: Pero yo hablo, y eso sí quiero enfatizarlo, yo hablo desde mi privilegio. Porque yo fui muy privilegiada. Yo no tenía que salir de casa, mi familia estaba en casa completamente… Entonces yo no tenía mayores problemas, ¿sabes? de "tengo que salir a trabajar porque si no no sé qué voy a comer mañana", como muchas familias. […] Yo me sentía protegida. Yo no sentía que mi familia estuviera en peligro, entonces, yo creo que eso a mí me ayudó a no sentirme agobiada más allá de las cuestiones, las cuestiones técnicas de una plataforma, pero no me preocupaba si va a comer o no, o si alguien estaba enfermo en mi casa, o si tenía yo que ir al hospital ¿no?, entonces, creo que eso fue lo que, en términos muy generales, me ayudó a no sentirme agobiada por el uso de la, de la tecnología, y por qué tengo un buen internet, etcétera. Fueron muchas cosas.*

The presence or absence of this kind of privileges among students, according to T7, had also a fundamental impact on their performance:

> *T7: Fue el privilegio de tener tecnología, de tener internet, de tener un espacio en solitario, lo que pudo haber ayudado a muchos de mis alumnos a pasar sus materias, y a los menos a no pasar. Fue eso. No fue falta de ganas, no fue falta de, de inteligencia para hacer las tareas, no fue capacidad cognoscitiva, no fue eso. Fueron otras cosas, ¿no?*

This inequality in the conditions of students caused that the institution asked teachers for empathy towards them, which at the same time might have contributed to the lag in students' level of language addressed before. Indeed, according to teachers, the pandemic situation was often used by students as an excuse to not do what they had to do, as we can see in the following affirmations:

> *T2: nos enfatizaron mucho el hecho de que teníamos que ser empáticos con el estudiante, por su situación tanto económica, emocional, académica. […] casi al final de la pandemia, cuando íbamos a regresar, la mayoría de docentes empezaron a decir "lo siento, o sea, me dijeron que tenía que ser empático y entender, pero ya sobrepasa a el hecho de que no se presentan casi todo el semestre y me están diciendo que… les dio Covid, o que ya se sentían muy mal, o la pérdida de un familiar, entonces, también el estudiante encontró como la vía ¿no? para poder sacar provecho de esto, , y los*

*docentes, llegó el punto en que, tanto se está repitiendo que dices "lo siento, hasta aquí".*

*T3: Se desconectaban, y después "perdón, se me fue el internet", ¡Ay! ¡Qué casualidad!, o sea, llegaban a tal grado de no querer participar, que se salían de la sesión.*

In words of T2, it was this empathy and paternalism that caused a mismatch between students' performance and their grades:

*T2: Como se nos pidió dar apoyo al estudiante, […] entonces teníamos que tener como esa empatía, y entonces, yo soy honesta, al decirte que un 10 virtual es como un 7 presencial. […] Porque entonces empiezas a considerar sus condiciones del estudiante, empiezas a justificar. Te vuelves muy paternalista. Cuando en realidad, eh… bueno, las condiciones tal vez no eran las idóneas, pero si podían hacerlo. Sí, sí podían, entonces… se lo adjudicó más al, al hecho de la emergencia y no a la virtualidad.*

All these situations confirm the differences between the ERT and online teaching mentioned in the literature, especially regarding the inequality in the access to resources and the fact that the attention during the ERT is not focused on the quality of the instruction but in health and safety (Barbour, et al., 2020). Certainly, the empathy towards students and their performance during the ERT also corresponds to what was suggested by Schwartz et al. (2020) about lowering the expectations of learning outcomes due to the crisis nature of the situation.

In summary, the general perception of ERT among the teachers of the Faculty of Languages is that it was a period that brought a lot of challenges but also a lot of learning, and in retrospective, some teachers even consider it a positive experience that made them grow professionally. In particular, this period show them that the online modality has its benefits and it can be effective for some courses and in specific scenarios, as declared by the following teachers:

*T1: yo creo que tal vez las clases en línea sí son un éxito para la gente que está en posgrado… que tiene ya cierto ritmo de trabajo y… pues, la interacción no es tan importante para ellos como para un alumno de 20 años, que tiene que socializar*

*T6: lo recomiendo más [las clases en línea] para clases pequeñas. Y con gente motivada, gente sin motivación para hacer trampa.*

### 4.2 Challenges and contributions of ERT

In this section the challenges faced by teachers and by the institution will be addressed, including the implemented strategies to overcome those challenges. The contributions and their perceived scope will also be presented.

### 4.2.1 Challenges

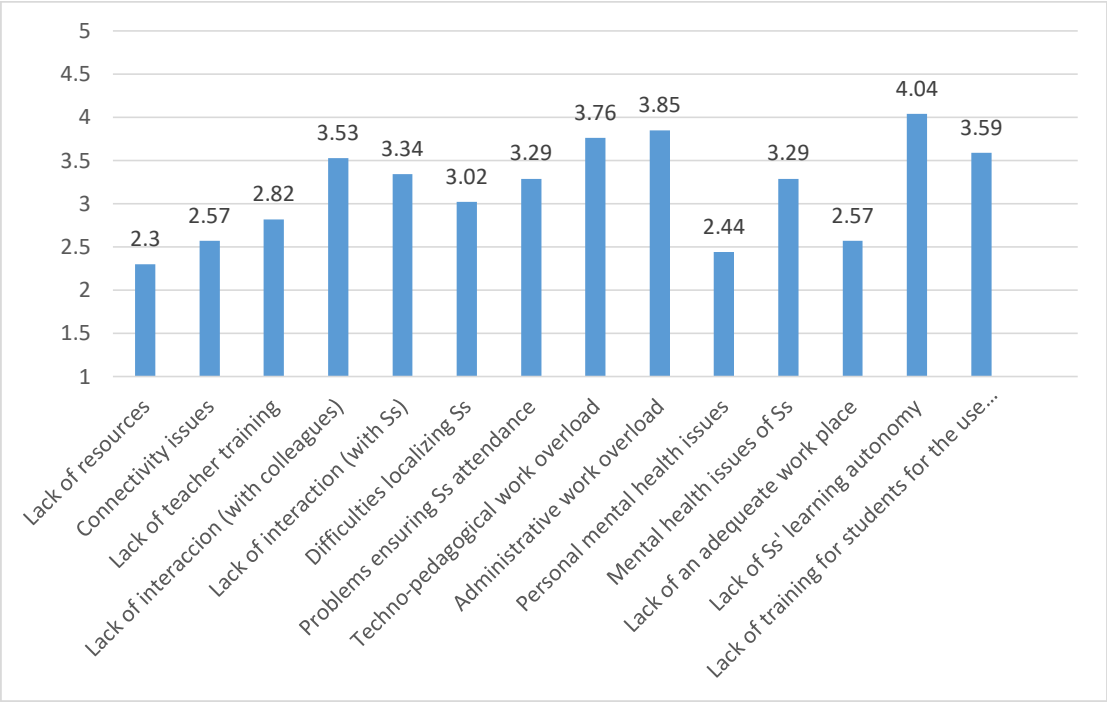
From the results of the questionnaire (see graphic 8 below), we can observe that the 5 challenges faced the most by teachers during the ERT period were:

1. Lack of Ss' learning autonomy
2. Administrative work overload
3. Techno-pedagogical work overload
4. Lack of training for Ss for the use of technology for learning purposes
5. Lack of interaction with colleagues and Ss

It is interesting to notice how the challenges related with resources, equipment, or connectivity issues, as well as the lack of teacher training, were among the least selected in this question, even though in the interviews were frequently mentioned, as shown in the 4.1 section above. This can be explained by the period of realization of the study. Certainly, this study was carried out after more than half a year of the returning to face-to-face classes, so it is possible that, in retrospective, the challenges that teachers remembered the most when answering the questionnaire were the ones that they faced the longest. On the contrary, during the interviews, teachers were guided through their whole experience, and they also described in detailed the challenges faced during the first phases, which, as explained before, were overcome by the second and third phase of the period.

**Graphic 8**

*Challenges faced by teachers*




Now, in relation to the 5 most frequently faced challenges mentioned above, the first one, the lack of student's learning autonomy, is indeed one of the most reported challenges across all literature concerning remote teaching and learning. This learning autonomy is necessary in traditional learning, but become essential in modalities where teachers' presence is not ensured, such as ERT. Moreover, learning autonomy is closely related with motivation and engagement (Honarzad & Rassaei, 2019), which were issues that were also reported by teachers as part of the challenges faced during this period, as seen in the following quotations:

> *T1: Los alumnos no están acostumbrados a trabajar solos. Entonces me parece que no, no hemos trabajado esa parte, no hemos desarrollado la parte de autonomía. Entonces eh… pues los trabajos no se hacían al 100% como lo solicitaba el maestro.*
>
> *T2: se redujo mucho el número de estudiantes que llegaron a ser realmente autónomos. Eso sí puedo decírtelo. Había estudiantes que tenían muy buen promedio, y que se mantuvieron en el promedio, pero, la autonomía no la desarrollaron.*

Then, regarding the 2nd and 3rd challenges, which are the administrative and techno-pedagogical work overload, it must be noted that they were also ones of the most mentioned during the interviews, particularly when referring to the first phases of ERT, as

stated in the section above. This is closely related with the institutional unpreparedness for remote teaching, as the sudden shift of modality implied the institutions and teachers had to adapt their courses for an online environment, with all the labor this involves (Juárez-Díaz,& Perales, 2021; Al-Abri & Mydin, 2021; Nilsberth et al., 2021; Werner & Küplüce, 2021; Weidlich & Kalz, 2021). Additionally, the lack of appropriate platforms to manage all assignments at the beginning of ERT, the lack of experience using the technology, and the fact that students' started communicating anytime with teachers to solve their questions, hugely contributed to this extra workload, as explained by participants:

> *P30: Exceso de tiempo dedicado a entender cómo resolver lo que implica el uso de la tecnología.*
>
> *T3: en un principio estuve trabajando a destajo, los muchachos todo el tiempo estaban mandando mensajes, correos, eh… todo el tiempo, a todas horas tenía que estar pendiente (…) así como me mandaban mensaje les contestaba. Entonces podía ser fin de semana, podía ser muy noche. Entonces, sí me empecé a sentir muy cansada*
>
> *T6: al principio no sabíamos cómo, cómo calificar, ni cómo, cómo corregir las tareas de los alumnos, y yo tenía que hacer… me tenían que enviar todo.*

Although by the last phases of ERT teachers had found strategies to diminish their workload, and the implementation of Microsoft Teams has also helped reduce the burden of teachers, participants declared that the administrative work is always tough for teachers':

> *T1: siempre la carga administrativa ha sido muy fuerte hacia el maestro en los últimos años… que hay que llenar, además de dar clases y preparar las clases, hay que preparar otras cosas administrativas que hay que subir a la red ¿no? para justificar lo que estamos haciendo. Entonces en algunos momentos pues eso también es excesivo para nosotros como maestros, ¿no?*

This might be the reason why, although teachers declared having seen the load reduce through the different phases, it was still considered one of the most challenging aspects of ERT.

The fourth challenge is, as well as the first one, related with students' skills, and correlates with what Baytiyeh (2021) said about the new generations and their use of ICT, because having born with the access to all kind of technology does not necessarily correlates with the adequate use of it for academic purposes. For example, T3 and T 5 mention:

> *T3: tuvimos bastantes problemas técnicos, y había cosas que yo daba por sentado que ellos por ser jóvenes sabían, y no, estaban igual que yo, creo, con desconocimiento de algunas cuestiones de la tecnología. En cierta forma aprendieron que, a lo mejor saben*

*mucho de computación, pero luego no podían subir una tarea, entonces… no es tan fácil.*

*T5: las personas que saben muchísimo de informática, de todos modos no hacen buenas búsquedas bibliográficas para sus marcos teóricos. O sea, al final no sirve de nada, ¿no?*

Lastly, regarding the fifth challenge, in previous studies the lack of interaction with students −and between students−, was found to be one of the main affecting challenges of ERT, especially from students' perspective (Juárez-Díaz & Perales, 2021; Werner & Küplüce, 2021; Saqlain, 2021; Reimers, 2022). However, for this research it was decided to also include in the questionnaire the lack of interaction with colleagues as one of the challenges, since peer collaboration −and hence interaction− is an imporant part of PD (Richards and Farrell, 2005), and due to the nature of the emergency lived with the COVID-19, all kind of interactions were limited or impeded. With the present results, it can be noticed that the lack of interaction with colleagues represented a slightly bigger challenge for participants than the lack of interaction with students. The reasons might be explained through a couple of participants' declarations:

*P27: La soledad y la falta de contacto con los colegas, que aunque no me deprimió exactamente, significaba que algunos problemas, que normalmente se solucionan hablando con la persona apropiada, fueron más difíciles de solucionar.*

*P36: El confinamiento provocó aislamiento social, base para el trabajo colaborativo*

Nevertheless, the lack of interaction with students was also repeatedly mentioned during the interviews, in particular related with the poor participation in class and the problems getting students to turn on their cameras. These situations caused teachers a lot of trouble, which was evident through their declarations, as the ones below:

*T1: los alumnos digamos que… no respondían a las preguntas que yo les hacía. Yo decidí no prender la cámara para tener un poco más de privacidad, por cuestión de estar transmitiendo desde la casa, pero también los alumnos… entiendo que también decidieron no prender las cámaras, entonces sí había una falta de interacción cuando yo hacía preguntas, normalmente había uno o dos alumnos, que eran los que siempre respondían y los demás pues permanecían en anonimato ¿no?, no había tanta interacción como cuando estamos en un aula donde uno le pregunta directamente a un alumno.*

*T3: lo que sí era más frustrante es que les preguntaba y no me contestaban. Yo no los obligué a que abrieran la cámara, porque pues entendía que algunos, pues su casa no querían que fuese vista o algo así, y aun así, aunque yo les decía, no necesitas abrir la cámara, solamente el micrófono, no querían, no hablaban, entonces… no había una participación espontánea […] parecía que yo tenía un monólogo, y eso no me gustaba nada. Entonces sí eso fue lo más frustrante, que ellos no querían participar.*

*P34: I couldn't get my students to turn on their cameras or very actively participate. I suspect that most of them were surfing the internet on their phones, laying in bed in their pijamas and only half-heartedly listening to class.*

It is important to mention that some of the challenges described by teachers, such as the lack of learning autonomy, the poor participation, and the work overload are also challenges present in the face-to-face modalities, though these were exacerbated during this emergency period.

In addition to the ones mentioned above, during the study there were found other challenges related with different parts of the institutional components. For example, some teachers and administrative staff members declared feeling concerned when they noticed the unfavorable environment in which students sometimes took their classes:

*T2: yo estoy segura que más del 90% de los estudiantes no tenían un espacio adecuado para tomar clases virtuales. Lo tomaban en la cocina, lo tomaban en la sala, lo tomaban en el comedor. Me tocó ver que había alumnos que en el patio de su casa, o en el techo, porque me decían, "es que aquí en el edificio, este… así no interrumpen, no hay sonido". También me tocó presenciar que de repente les decían "ve a la tienda por algo" y… los alumnos "pero pues estoy tomando clase", "no, ve a la tienda". O se escuchaba el ruido de la licuadora ¿no? el de los tamales, el perro, tocaron y "permítanme". O sea, mucha, mucha interferencia, muchas interrupciones, mucha frustración, no sólo por parte de los estudiantes, sino también de mi parte.*

*T3:me tocó clases en que estaba alguien dando su presentación, y la mamá atrás lavando trastes, aventando cosas, regañando niños… no hay respeto en la familia para la clase, y tal vez no tenían un lugar para estar, entonces…sufrieron. Había otro que todo el tiempo que él abría su micrófono y hablaba, se escuchaban gallinas, vacas, y entonces él se apenaba (…) o a veces se les iba la luz, o hubo una lluvia muy fuerte y se les fue la luz como una semana, […]Hay quien tomaba la clase en la cocina, porque ahí llegaba la señal. Luego había quien ponía la tele, tocaban la puerta, ladraban los perros., pasaba el del gas. Entonces tenías que tener mucha resiliencia.*

*T7: muchos podían irse a… a casa de la tía, de la abuelita, y hay ruido, y que si el gallo, y que si los cerdos, y que si los perros… o que si la gente, la gente que hablaba. Entonces, yo creo que fueron muchas cosas que no les permitieron terminar.*

All these situations affected the learning of students, causing an impact on their language level, which in turn affected even more their further learning or even caused their school dropout. Some other challenges were mentioned by participants, but as they do not directly concern teachers, or there is not enough information about them, they are not discussed in depth in this section. However, a compilation of the challenges found is presented in table 5 below.

**Table 3**

*Challenges of ERT*

<table>
<tr><th>Teacher challenges</th><th>Students' challenges</th><th>Educational challenges</th><th>Institutional challenges</th></tr>
<tr><td colspan="2">Lack of equipment</td><td>Free platforms restrictions</td><td>Need to migrate contents and programs to a digital modality (administrative work)</td></tr>
<tr><td colspan="2">Lack of an appropriate internet connection</td><td>Affectations to students' professional practice</td><td>Organization and communication issues</td></tr>
<tr><td colspan="2">Lack of knowledge, abilities and experience for online teaching/learning</td><td>Lack of control of the virtual classroom dynamics and environment</td><td>Dealing with stakeholders demotivation</td></tr>
<tr><td colspan="2">Personal issues related with the emergency</td><td>Impact on language learning</td><td>Low student enrollment</td></tr>
<tr><td>Work overload</td><td colspan="2">School dropout</td><td>Disagreement with teachers</td></tr>
<tr><td>Lack of interaction with colleagues</td><td>Lack of interaction with classmates</td><td>Lack of interaction teacher-student</td><td></td></tr>
</table>

### 4.2.2 Contributions to professional development

After having presented the main challenges faced by teachers during their remote teaching, the contributions this period left to their PD are discussed in this section. Graphic 9 below show the contributions perceived by teachers according to the degree to which they

agreed to each one of them (to see the corresponding statements to which teachers had to agree or disagree with, please refer to appendix 1).

As it can be observed, the 5 main contributions perceived by teachers are:

1. Increased knowledge of digital tools and resources

2. Increased use of digital tools and resources

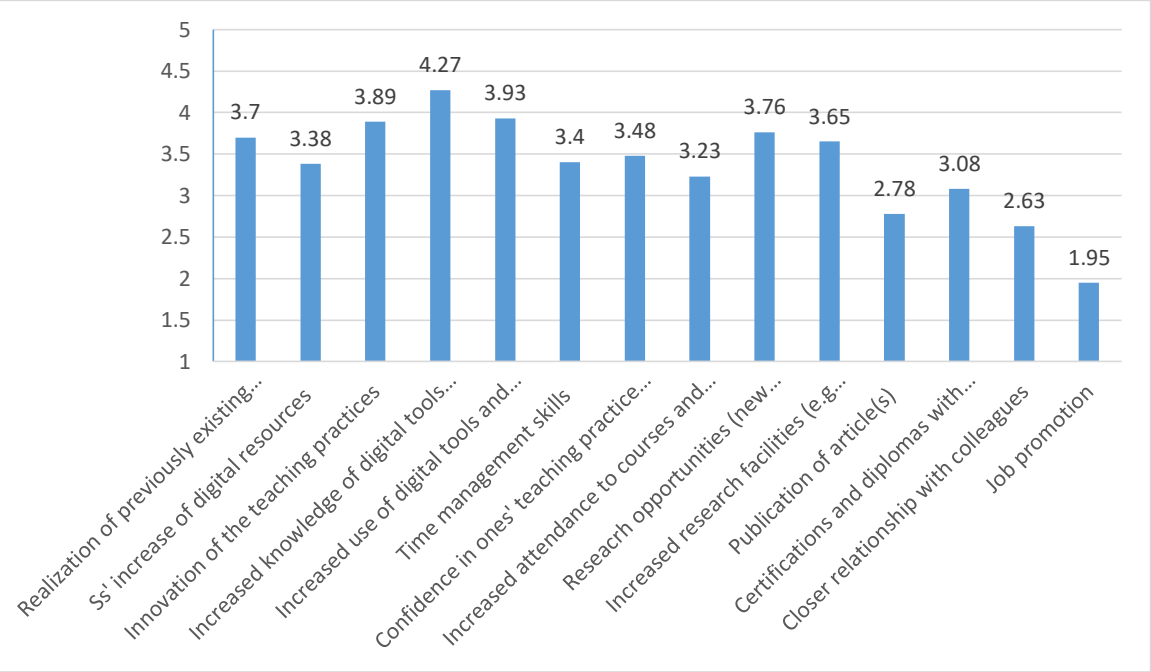
3. Innovation of the teaching practices

4. Research opportunities (new phenomena)

5. Realization of previously existing problems

**Graphic 9**

*Contributions to PD of ERT*




Since the most noticeable characteristic of this ERT period was the use of technologies to replace in situ lessons, it is not surprising that the first three contributions are related with technology and innovation in teaching. In fact, this adoption and

improvement of technological skills was reported in every study of ERT that mentioned any positive side of the situation (see for example Shisley, 2020; Mseleku, 2020); Sevy-Biloon, 2021; or Juárez-Diaz & Perales, 2021). These contributions were also mentioned during the interviews, as shown in the examples below:

> *T1: Toda esa gamificación que se desarrolló es muy buena para reforzar lo que es la enseñanza/aprendizaje de lenguas, ¿no?, entonces hay que dedicarle tiempo, y a mí me parece una buena contribución de lo que dejó la pandemia*
>
> *T2: lo que sí considero es que en mi labor me ayudó mucho a renovarme, porque… bueno, yo ya llevo 15 años, 16 años en la Universidad, entonces, por mucho tiempo me limitaba al uso de videos, al uso de copias, a exposiciones por medio de Power Point, o sea bastante limitado. Ahora no, ahora honestamente sí trató de aplicarlo en los cursos que doy, me agrada, me emociona ya como de repente conocer otras aplicaciones, ¿no?*
>
> *T6: sí aprendí cosas, y aprendí sobre la tecnología, aprendí a ser más rápido en el manejo de la tecnología.*
>
> *P34: I believe that my increased knowledge of online platforms and virtual tools were greatly beneficial to my general repertoire of teaching resources. My toolbox was expanded. I use all of those tools in the traditional classroom now.*

Furthermore, also related with the use of technologies, teachers also indicated a couple more advantages obtained from the experience with the ERT. First, one teacher declared having learnt how to automatize some of her courses to make her work easier, which also allowed her to give more classes and earn more:

> *T5: pero también me volví más hábil en todas estas plataformas tecnológicas, pues para ahorrar lo que más pudiera de trabajo. Todo lo que me pudiera ayudar el sistema, a que no lo tuviera que hacer yo, rápido, eso lo tuve que aprender lo más rápido posible. Y es otra manera ya de ver la, la enseñanza. […] yo pude automatizar algunos cursos y prácticamente nada más verlos, realizarlos el fin de semana y ver qué resultados tuve. De hecho, tuve la oportunidad de meter muchísimas materias en una escuela, y muchísimas materias en la otra, porque hubo cursos que yo grabé… daba el curso grabado en lo que yo estaba en otro curso, entonces, daba clases al mismo tiempo.*

Second, some teachers mentioned that the use of technology for meetings during the ERT demonstrated that it was a more easy, comfortable and efficient way to organize them, and they were glad to see that this way of meeting came to stay.

> *P34: I believe that administrative meetings can be conducted virtually now just as effectively and scheduled more easily than face to face meetings. I also believe that interviewing processes […] can be conducted virtually more comfortably than face to face interviews and include more participants without it feeling exaggeratedly intimidating,*
>
> *T7: yo antes a mis tesistas los tenía que ver en persona. Y yo tenía tesistas que vivían precisamente en Tepeaca, o que vivían en Tlaxcala, y tenían que venir los pobres para ver lo de su tesis. En cambio ahora, les da tanta paz y tranquilidad que les diga, "te voy a ver en línea", o sea, tú allá en tu rancho, te veo aquí 1 hora, platicamos, me enseñas*

*tu documento, y todos están encantados. O sea, eso para mí ha sido fantástico. Porque seguimos siendo eficientes […] Entonces mis tesistas están como muy, muy, muy dedicados, trabajan, no se me desaparecen. Esa es una gran ventaja que yo he visto, al conectar la tecnología con mis alumnos en lo académico. También mis trabajos con compañeros también ¿no? hay juntas, que genuinamente no deberían de ser en presencial, podrían ser un correo. Entonces, ¿No las quieres hacer correo? Pues nos vemos en línea, por lo menos… no me abrumas con que tenga yo que levantarme temprano, y bañarme, e ir a verte, para algo que va a durar 15 minutos.*

Then, regarding the research opportunities, some teachers mentioned they had more time to do research, and since ERT was a whole new phenomena worldwide, that raised new questions and problems, the gaps to fill in the literature were opened, and that represented a big opportunity for researchers (Mseleku, 2020). For example, T4 explained:

*T4: todo lo que estaba ocurriendo en ese momento, de verdad, era objeto de investigación, porque todo era nuevo, entonces era muy interesante ver desde cómo reaccionaban los muchachos… las cosas que también son tristes como… que la gente no se conecta porque tiene otras cosas que hacer, o que de repente oyes que le están gritando a alguien porque olvidó apagar su micrófono y estás oyendo todas esas cosas […] y está en el mercado porque está ayudando a su mamá, y todo este ambiente, o te contesta a alguien y están las gallinas, y los cochinos. Tuvimos la suerte de hacer una publicación con [teacher] justamente sobre esto, ¿no? las cosas que se pudieron descubrir a través del uso de la plataforma. Realidades particulares de los muchachos que no conocíamos, ¿no?*

As seen in the previous declaration, some teachers even had the opportunity to publish about what they have lived and discovered during this period.

Finally, regarding the realization of previously existing problems, it makes reference to what Barbour et al. (2020) and Nilsberth et al. (2021) pointed out, about the increased attention to overcome problems such as the digital gap or the social inequalities, that already existed but became exacerbated during the emergency. In fact, a couple of answers given by teachers mentioned:

*P6: considero que si (me aportó beneficios ésta experiencia) ya que nos dimos cuenta de la importancia de la formación continua*

*P7: tuve oportunidad de conocer un poco más de las a veces muy difíciles circunstancias de los estudiantes.*

*P12: Me hizo más consciente de los problemas emocionales y de aprendizaje de mis alumnos*

Here it can be noticed that these examples show some issues that participants became aware of because of the experience with ERT, but already existed before, such as the need for continuous training and the difficulties faced by students. In addition, as presented in the challenges section, participants stated that one of the principal challenges

of ERT was the lack of resources of students, which became apparent by the shift to virtual modality, however, this situation probably represented a problem for those students even before the pandemic, but teachers and society were not aware of it. Hence, this contribution in particular represents a big opportunity to the improvement of education, because if, on the contrary, we think of these problems as exclusive of the ERT, it exists the risk of neglecting them once the experience has been overcome

Having addressed the main contributions perceived by teachers, according to the questionnaire, now a list of other contributions mentioned by participants is presented. These contributions were not fully discussed through the instruments, but it is important to consider them as they also play a part in teachers' PD. These contributions are:

- The optimization of administrative processes through the use of technology
- Opportunity to have different work experiences (such as participating as evaluator for certifying organisms)
- The acknowledge of the availability of the resources already existent for teacher training
- Development of organization and autonomy skills
- Development of resilience
- The discovery of hidden talents, such as creativity
- The opportunity to put into practice previous learnings that couldn't be done before (such as the use of some technologies)
- The ability to diversify strategies and activities
- Obtainment of different certificates that contribute to CV

Unlike the ones mentioned before, that were mostly related with technological skills, these last contributions can be classified indifferent categories, such as management and institutional skills (optimization of administrative processes), design skills (the development of creativity) or pedagogical skills for teach online (diversifying strategies, put in practice previously learned technological skills). Which could be found also in other studies like Atmojo's (2021)

In addition, some participants mentioned a contribution that could be classified as temporary, as it only had influence during the time ERT lasted, and it is the optimization of time. Certainly, the possibility of working from home has the advantage of allowing to save money and time by making unnecessary the transportation (Sevy-Biloon, 2021)

Furthermore, it is interesting to mention that, even though the participants were asked about contributions to PD, some of them also mentioned a couple of contributions that are apparently more personal than professional, which are the valorization of the social part of teaching and the development of socio- affective skills such as empathy and emotional awareness. However, since teaching is a profession with a highly humanistic and social orientation, the development of such skills could have a great impact also on the professional practice, as shown in the following declaration:

> *T7: Entonces a mí en esa parte humana, la pandemia me ayudó mucho a relajarme, a no ser tan estricta, a no ser tan inflexible, porque yo en lo presencial era muy inflexible. […]Al alumno le da más tranquilidad saber que no va a perder una clase por 10 minutos de llegar tarde, o que si no tiene 15 pesos para sacar copias, la maestra no se la va a hacer de tos, como se dice vulgarmente ¿no?. Entonces, lo único que yo les pido a mis alumnos es, infórmenme. Avísenme. Dígame por qué no van a venir. Díganme por qué no entregaron la tarea, digan… díganme por qué. Porque si no, entonces yo asumo que a ustedes no les importa. Entonces, la parte humana a mí me ayudó mucho. Me volvió más empática, lo cual me ayuda en mi desarrollo profesional, porque soy como docente más cercana a mis alumnos, y cuando mis alumnos tienen problemas a nivel académico con lo que yo doy de clase, sienten confianza para acercarse y decirme "profa, pues la verdad no entiendo esto, ayúdeme"*

Moreover, some participants also mentioned a contribution of ERT to de society in general, which has been also reported in previous literature such as in Sevy-Biloon (2021), that is the reduction of the digital gap by incrementing the access to connectivity and technological devices, since by the las phases of ERT, all teachers had already the equipment needed to deliver their lessons, and among the student population those resources challenges had also decreased.

Finally, it must be mentioned that, even when the pandemic brought some opportunities for PD, some teachers did not perceive any contributions to it, and only were able to see the troubles it caused. Even more, it is also remarkable that teachers did not seem to perceive any PD related with professional growth within the institution, which can be a hint to possible barriers to promotion. In this sense, it is important to reflect on the role of institution in PD, because as seen in the literature review, the lack of incentives from

institutions may represent a barrier to CPD, and considering that most of the contributions to PD perceived by teachers were obtained through independent PD (Sadeghi & Richards, 2021) rather than institutional –the training courses were mainly taken only during the adaptation phase of ERT−, this lack of incentives could affect the willingness of teachers to continue engaging in PD activities once the impact of what they lived during the pandemic is forgotten.

### 4.3 Institutional response and support to face ERT

After having seen the challenges and contributions of this ERT period perceived by teachers, in this section we discuss the institutional response during this emergency and how it was perceived by teachers and the administration Staff, since institutional support is one of the most influential factors for a successful PD (Atmojo, 2021; Sadeghi & Richards, 2021). This is especially true during crisis periods, since one of the main challenges of ERT reported in previous studies was the lack of institutional support (Saqlain, 2021; Aktar et al., 2022).

Table 6 below shows the perceived institutional support reported by teachers in the questionnaire. As it can be seen, the most mentioned criteria were the training courses offered and the financial support, with 23 and 15 mentions respectively. As for the other criteria, teachers mentioned being provided with access to platforms and digital tools (6 mentions), having benefited of tolerance and flexibility from the authorities (2 mentions), and equipment maintenance and supply (2 mentions). However, we can notice that there were also 10 mentions indicating not having received any support, which indicates that the institutional actions or response towards the emergency may have not been perceived by some teachers as favorable or may have not been perceived at all.

**Table 4**

*Teachers' perceived institutional support*

| Kind of support | Mentions (frequency) |
|---|---|
| Training/courses | 22 |
| Economic | 15 |

| | |
|---|---|
| Access to platforms/digital tools | 6 |
| Administrative (tolerance and flexibility) | 2 |
| Equipment maintenance and supply | 2 |
| Unspecified | 1 |
| None | 10 |

The different forms of support shown in the table were also found during the interviews, which provided more detail about them, as well as some limitations mentioned by participants which will be discussed as follows.

First, it is important to mention that, as stated before in this chapter, the uncertainty regarding how long this ERT would last made the reaction of the institution to be delayed and give the support late, causing that during the first months, teachers had to cope with the situation by their own or with the support of the internal community. For example, T1 mentioned having to watch videos of the use of Zoom, as he had not used the platform before. In addition, he also mentioned that the CAA (Centro de AutoAcceso), which is an internal department of the faculty of languages, provided some little training for the use of platforms at the request of some teachers, seeing the inaction of the institution. Furthermore, a member of the administrative staff and one of the interviewed teachers, both of them having previous experience with online teaching, mentioned having organized with their colleagues to help them start working with the platforms.

Later, with the realizing that this emergency would last at least one more semester, and observing teachers' struggles with the use of platforms, the institution decided to homogenize and make official the use of Microsoft Teams, and started offering the needed training for teachers. Fortunately, teachers seem to be satisfied with this election, as all interviewed teachers mentioned at some point that they found this platform useful, complete and friendly to use.

*Training and courses offered by the institution*. Regarding this aspect of the institutional support, the opinions were divided. On one hand, some teachers considered

these courses responded well to their needs at the moment, helping them with the use of all the features of the platform such as the video-conferencing or the management of assignments. On the other hand, some teachers thought these courses only tried to politically respond to what was expected from the institution, and that they were offered in order to guarantee the delivery of the classes rather than to help teachers with their performance. In fact, one of the teachers said they were not even necessary, as the use of Teams only required a day exploring the platform to be mastered. A couple of representative examples of these opinions are presented below:

> T2: considero que fue nada más una respuesta política la que se tenía que dar, porque es parte de la emergencia y ¿cómo responde la institución?, la institución responde diciendo "siempre he tenido esta formación" porque sí existen, estos cursos siempre han existido, ya llevan bastante tiempo, nada más que como curricularmente lo tomas, para tu formación, este… pues se tomó de manera, eh… no fue obligatoria, pero sí fue una invitación que se recibe.
>
> T5: Yo sí pienso que esas capacitaciones respondían a la necesidad urgente de poder manejar una plataforma en donde gestionar las tareas, la misma plataforma en donde subir materiales, y la tercera donde tener las video-llamadas.
>
> T6: daban cursos diferentes, y al final solamente era esto: Teams. Y Teams con un día de intentos ya entiendes Teams, no necesitas cursos, entonces… Yo no soy un analfabeto digital tampoco, una vez que entendí lo que era, de qué iba, qué había que usar en esta plataforma, que tiene esta función de chat, que funciona como pizarrón, que tienes archivos para subir las tareas, y pocas cosas más, ya no habían nada más que aprender, realmente.

Regardless of the opinions about the reasons why the institution offered the courses, teachers agreed that there was a fair variety of training courses available, which according to T1 were very useful and offered by competent instructors. However, some participants of the interviews expressed their dissatisfaction with the scope. For example, T7 considered that the curses were limited to teach them how to use the platforms at a technical level, but they did not cover the use of pedagogical strategies for online modalities, which are considerable different than face-to-face ones; and T2 declared that the courses available were too generic, and they should be adapted for the different areas, which have their special needs, as we can see in the quotation below:

> T2: los cursos no fueron contextualizados. Las necesidades de un docente de matemáticas son muy diferentes al de computación, o al de medicina, o al de lenguas. […] A la fecha no he recibido un curso, o no se ha ofertado un curso específicamente en herramientas tecnológicas para lenguas, para la enseñanza de lenguas. [….] siempre hubo mucha formación, pero reiteró, descontextualizada.

According to teachers, taking these training courses was optional, and the administrative staff members declared that teachers' response was favorable since almost everyone participated in the training. However, it is also true that teachers' could not (and still cannot) take all the courses they wanted, because the work overload did not let them, as mentioned by T3:

> T3: personalmente no aproveché nada de capacitación, ni certificaciones ni nada, porque el trabajo en línea es muy demandante, entonces por cuestión de tiempo no hice nada más que lo del curso de Moodle. Tomé una que otra conferencia de… sobre que presentan sobre libros, pero así particularmente que lo haya aprovechado mucho, no, porque la carga de trabajo era mucha, o estás preparando, o estás calificando, o estás contestando mensajes, o estás contestando correos.

*Financial support.* Regarding the economical actions taken to support the community, all interviewees agreed that the institution offered 5000 pesos to teachers −in addition to their usual payment− at the beginning of the pandemic to help them cover unexpected expenses related with the use of the internet or the lack of an adequate equipment for the delivery of online curses. Only one of the interviewed teachers declared not having actually received that support because she missed the deadline for making the request, while other teachers mentioned having received it automatically with their payments without even having to ask for it.

This sum has mainly been used to buy things such as hard disks to complement their equipment, or to upgrade their internet plans, so teachers considered this economical support very helpful. However, in some cases teachers did not have an adequate computer for online lessons, so they had to buy one. In these cases, the offered sum was not enough to cover those expenses, and even if it was still helpful to count with that extra money, they considered it was little help.

However, it is worth saying that the institution was not obligated to give this extra economic support, as mentioned by one of the administrative staff members:

> *S2: antes de la pandemia, y hasta ahorita, los contratos de los maestros nunca dicen para trabajo a distancia. Todos son presenciales. Por lo tanto, todo lo que tenía, y todavía tiene que ver con un trabajo remoto no está especificado de manera legal en un contrato. Por lo tanto, la Universidad ni entonces ni ahora está obligada a proveer de equipo o de internet a nadie. […] la Universidad tomó entre… sus decisiones también un apoyo económico, para los maestros, con ese apoyo, ellos sabían… sabrían cómo usarlo: mejorar su computadora, o pagar su internet, o… ellos sabrían… el propósito del dinero era apoyar esa situación.*

Thus, deciding to economically help all teachers was a very kind decision from the university, probably driven by the social influence this institution has in society, being one of the most important Universities in the country, and what is expected from it. In any event, participants seem to appreciate that contribution to their economy. Furthermore, in addition to this 5000 pesos, the university also decided to make a call for teachers to design courses to be delivered in an online modality, which would achieve two main goals: a) having a new offer for distance learning courses in the future and b) help teachers with an extra income in those difficult times. Among the teachers who participated in the questionnaire and in the interviews, some of them declared having participated in this project, and they considered this as a good act of support from the institution as well.

*Other support.* Besides the training courses offered and the financial support given, some other actions taken by the university to overcome this ERT period were mentioned by teachers and staff members, for example:

-Some teachers mentioned that the institution showed flexibility and tolerance towards them regarding the evidences they had to handle in, seeing the difficulties they were having.

-Some members of the administrative staff also mentioned that the institution showed empathy and tolerance towards students, since during the first semester of ERT they allowed them to drop out of their subjects at the half of the semester if they did not have the resources to take their online classes, so it would not affect their grades.

-As seen in the section 4.1.2 of this chapter, the institution also tried to reduce the administrative work overload of teachers by helping them create the groups and adding the students on the platforms previous to the beginning of the courses, so teachers did not have to do it.

-The institution lent and give some computers and equipment to teachers and students who might need them the most, in order to allow them to give and take the online classes during this period.

*Communication.* Regarding the communication of all this support, all interviewed teachers agreed that the institution did a good job, since they always received by mail all

the information about what was offered and available. A couple of examples of these declarations are presented below:

> *T1: Me parece que las coordinaciones nos mandaban este tipo de invitación… a través de lo que era nuestro correo institucional, entonces sí se hacía una invitación abierta a todos los maestros. No era obligatorio; el maestro respondía a la invitación y se inscribía, si quería.*
>
> *T3: yo creo que en cuanto a comunicación, y cómo se ofrecieron las cosas, me pareció muy fácil. Sí, la institución lo hizo bien, creo.*

In summary, it can be said that, although there were some areas of opportunity, the institution responded adequately to help its community overcome this emergency period. In fact, throughout the ERT, the institution guaranteed the three measures identified by Baytiyeh (2018) that should be implemented in schools during ERT, which are: a) maintaining effective communication, b) maintaining access to learning materials, and c) maintaining access to data. This good reaction was reflected by the opinions of teachers, who in general demonstrated approval for the decisions and actions taken by the university, and also showed understanding towards the fact that, as well as themselves, the institution was learning how to manage this unprecedented and unexpected situation, as the testimony of T7 shows:

> *T7: No estoy hablando mal de mi institución, yo estoy muy agradecida… pero también, si tengo que calificar el desempeño de ellos, yo les daría un 8. Pero no puedo decir que la institución me dejó solita, no puedo decir que me dejó ahí a la deriva y a ver cómo te las arreglas, o sea, no, no, no, jamás. Pero sí también hay que ver los desaciertos que puede llegar a tener la institución, porque también estaba aprendiendo, igual que nosotros.*

While it is true that all the circumstances given the institution did what it could with the resources it had, stakeholder's evaluation of institutional response should be taken into consideration in order to improve this response capacity, not only for future emergency events, but also for supporting the day to day performance of its community.

### 4.4 Institutional readiness for future emergencies

After addressing the actual experiences of teachers during the ERT, the challenges faced, the contributions obtained, and the institutional response, in this section the perception of teachers and administrators regarding the institutional readiness to face a future similar event of ERT will be presented and discussed.

Indeed, as mentioned in Chapter I, the possibility of having to face new emergencies that force us to come back to ERT is every time more and more latent, and participants of the interviews seemed to be aware of that. Thus, it is important for the institution to be prepared for such situations, and knowing the current readiness perceived by teachers can give some insights into what has been done and what is left to do.

Fortunately, all interviewed teachers and administrative staff agreed that, in the case of a new similar emergency, the institution would definitely be more prepared to face it, as teachers and students have learnt from the experience, and technologically, the institution is now better equipped . A couple of comments that show this opinion are the following:

> *S4: Yo creo que sí [estamos preparados]. Sí, la Universidad cuenta con la infraestructura, con los recursos. Entonces eh… pues es una Universidad importante a nivel estatal, a nivel nacional, ¿no? Por lo tanto, si viniera otra situación parecida, lo sacan a flote, sí lo sacan a flote. Claro que sí.*
>
> *T1: Sí, creo que… la Universidad está preparada para poder implementar nuevamente estas clases en línea, me parece que sí se desarrollaron las herramientas necesarias por parte de… digamos, de los expertos, y que hicieron partícipe a los docentes ¿no? para poderse capacitar. Entonces eh… creo que sí, sí estamos preparados para una nueva… evento similar.*
>
> *T4: Creo que sí aprendimos todos en la pandemia. Creo que se desarrollaron competencias y habilidades.*

Moreover, throughout the interviews, teachers mentioned some characteristics and institutional actions that have been identified in previous literature as being important to the preparedness for an emergency scenario, for example:

*The use of online/digital tools for education.* Although teachers declared not using in their classes as much technology as during the ERT period, they still use more digital and online tools for education now than in the pre-pandemic era. In fact, some of them indicated that they still use TEAMS regularly in their courses and have their meetings with their thesis students or with their colleagues online, using different video-conferencing platforms.

*Existence of some forms of e-learning in school programs and availability of an online version of the courses.* As previously seen in the section of contributions, the members of the administration staff mentioned that nowadays, a percentage of the academic offer in the institution is programmed to be delivered in online or hybrid

modalities. In addition, teachers also mentioned that during the pandemic, the institution asked teachers for the creation of an online version of the courses to be available when necessary.

*Cloud computer technology to maintain access to resources.* Some teachers and administrative staff mentioned the creation of an institutional virtual ecosystem, *ecobuap*, which is designed to make all academic and administrative resources available for the faculty, which would be of great usefulness in other emergencies.

*Faculty training*. Participants have unanimously agreed that the institution has a wide variety of training courses of all kinds available for teachers, and even if some teachers think those courses should be more contextualized and/or they do not completely fit their needs and requirements, it can be said that the institution cares about its faculty members' training and provide options to keep them updated and prepared. Besides, some teachers mentioned having realized the importance of continuous PD, so they try to be updated by taking courses external to the institution.

*Availability of resources.* According to administration staff members, teachers of the faculty have now the necessary equipment and resources for the delivery of online instruction. In the case of students, it is beyond the reach of the institution, but apparently, the institution has the capacity to provide some computational equipment in case of emergency. Additionally, it can provide licenses for digital tools and platforms, which are essential when delivering remote courses. Furthermore, if needed, the faculty is already prepared to equip classrooms with cameras, microphones and computers for the delivery of hybrid lessons, if needed.

Nevertheless, having mentioned the readiness indicators present in the current situation of the institution, there are some aspects that should be considered in order to ensure that we can prevent as much of the previous challenges as possible. These aspects are:

*Non resilient teachers.* Notwithstanding the fact that, in general, teachers are now technologically and attitudinally better prepared for a new emergency, interviewed participants agreed that there were some colleagues who could not (and/or did not want to)

adapt to the remote modality, and continued limiting their classes to a videoconferencing monologue during the whole period, without any use of more technological tools. The institution should thus train and prepare those teachers, so their future classes will not face the same difficulties as in the previous ERT period, or at least, it must ensure that the teachers who are not prepared and resilient be the less as possible.

*Continuous professional development.* Although according to this study's results teachers are now more aware of the importance of being in constant training, and the institution already has a variety of courses available for their faculty, it was mentioned repeatedly that the general administrative work overload impede teachers' to take all the training they would like to. Indeed, this was already discussed in the works of Atmojo (2021), Al-Albri and Mydin (2021) and Tafazoli (2021), and the suggestion for the institution would be that, the PD opportunities be job-embedded so teachers could handle it without neglecting their family and personal life. It would also be advisable to offer incentives such as rewards, promotions, or financial aids to motivate faculty members to engage in PD activities.

*Student's preparedness.* While it is imperative that the institution and faculty be prepared for a future shift to ERT at a moment's notice, the truth is that the students' preparedness to do so is beyond the reach of the institution. However, there are a couple of things that should be considered in order to ensure the softest transition to a remote modality. These are: a) the availability of as much equipment as possible to be lent to students who might need it the most, and b) the importance of promoting, through training courses or through a new curricula, students' autonomy and self-management of their responsibilities. They should be able to manage their own learning for the remote teaching to be effective (Honarzad & Rassaei, 2019) ( Işık & Balçıkanlı, EFL Teachers' Autonomy Supportive Practices for Out-of-Class Language Learning, 2020) (Sujannah, Cahyono, & Astuti, 2020), and although the development of autonomy and self-management skills depend greatly on the maturity of students (Shisley, 2020), there has been suggested that institutions should also promote this skills among their students (Juárez-Díaz & Perales, 2021).

*Availability of a mental-health support.* In case of emergencies such as the COVID-19 pandemic, the context surrounding the education, such as the loss of the loved ones, the confinements, the anxiety produced for the health/life threat, etc. can impede the proper development of our potential. In this sense, it would be advisable for the institution to provide the necessary psychological support to help its community overcome this stage with the best possible performance.

In summary, according to participants' general perception, even if there are still some areas of opportunity that should be addressed for a completely successful remote teaching, the institution is currently reasonably prepared to face a possible future ERT period. In fact, by the time the last interviews were conducted, the state volcano had been erupting, and the ashes affected many regions around it, causing the authorities to order the temporary closure of institutions in the most concerned areas, including the city of Puebla. In the case of our faculty, this closure was only from Mai 22$^{nd}$ to Mai 29$^{th}$, however, teachers mentioned having felt calm when the transition to ERT was announced, even if at that time nobody knew how much it would last. This can be witnessed through the following declarations:

> T6: *creo que la erupción del Popo lo prueba […] Una vez que nos dijeron que ya no hay clase presencial, ya todos sabíamos cómo hacer, y los alumnos también. Entonces creo que sí, que si vuelve a suceder esto, pues que… estamos mucho más preparados, y la institución también.*
>
> T7: *la verdad es que lo del Popo a todos ni nos afectó ¿sabes? Nos dijeron, nos vamos a las clases en línea, y todos "Ah ok. Perfecto". "Ah, que tienen que volver a usar sus cubrebocas" "Ah, también, perfecto, no pasa nada". Eso fue muy padre para mí verlo, porque fue tan fácil la transición.*

This change in attitude compared to the time when the closures for COVID-19 were announced is also a good indicator of readiness, because feeling comfortable and confident in ones capabilities can make a big difference in the teaching performance. In addition, this short contingence proved that the institution has learnt from the previous experience, and instead of simply cancelling the instruction due to this kind of natural event, it is now possible to continue the program on a remote modality. Nevertheless, a suggestion should be made to teachers, students, and stakeholders in general to actively demand what they think is necessary to ensure readiness as much as possible.

# Chapter V: Conclusions

The present study sought to know how teachers of the Faculty of Languages perceived the ERT period caused by the Coronavirus pandemic, not only regarding the challenges, but also the possible contributions it brought to their PD. In the same vein, it intended to find out what were the actions taken by the institution to overcome this period, and its readiness to face new emergency situations from teachers and administrators perspectives. In this last chapter, a summary of the key findings will be provided, and the contributions of this study, its limitations, and the directions for future research will be addressed.

## 5.1 Key findings

From the results presented in the previous chapter, it can be noticed that, when asked about the experience lived during the ERT in retrospective, most teachers seem to see it as a period of learning in many aspects, even though they did face important challenges, especially during the first phases of the period. Additionally, there seems to be a change in the attitude of teachers towards technology use in teaching, as some of them are more open to its use during their classes and have developed some pleasure for online teaching. However, contributions related to increased job opportunities or a better relation with colleagues has not been felt in general.

Another relevant finding was that the institution had enough resources to help the community of the university overcome these challenges, and some of these resources were available even before the pandemic, such as the availability of digital platforms and constant offer of training courses, however, since there was not a real need to make use of those resources before, they were not profited enough by the community. After the experience of the ERT, teachers and the institution in general developed awareness of the importance of continuous training and the progressive transition to online teaching modalities. In this sense, this experience has also resulted in a development for the institution, as even more technological resources have been acquired, and the online offer in all Academic Units has increased.

All this development represent a good indicator of resilience and readiness for future emergencies, and this is reflected also in the opinions of the administrators, as they feel the institution is well prepared for possible emergency scenarios. However, it is important to note that some challenges of ERT regarding the attitudes and self-management skills of students are not solved by the implementation of the mentioned institutional strategies, which constitutes an opportunity area of improvement.

### 5.1.1 General perceptions of ERT.

As mentioned before, teachers perceive in general the previous ERT period as a learning opportunity, which has brought many changes to education, to the institution, and to their own selves. This period can be divided in four main phases, which explain the evolution of it: a) the initial schock, b) the adaptation, c) the stabilization, and d) the re-adaptation to face-to-face classes.

The first phase comprises the first semester under this modality, when the sudden shift to remote teaching occurred. During this phase, the predominant feelings were uncertainty, anxiety and stress, even though some of the teachers take it calmly and tried to just get along until the returning to *normal* activities, as no one could have imagine this period would last so long.

The adaptation phase comprises approximately the second and third semester under the ERT modality, when actions started to be taken, since it became evident that the emergency would not end as soon as it was thought. During this phase, all teachers started taking real actions to deliver their courses remotely, and the institution started providing them with training and tools to help their teaching performance.

During the stabilization period, which started approximately from the end of the third semester, teachers had already found their work rhythm. They were already familiar with the main platforms used for the delivery of lessons, and some of them even started liking the remote modality. The ones who were still not comfortable with the situation, at least were no more stressed as in the previous stages.

Finally, when the return to face-to-face classes was announced, teachers (and students) were mostly already adapted to work from home, which caused that they should

face again an adaptation period to get used to the *new* modality. This change was, however, not as abrupt as the previous one, since the returning was staggered and stakeholders had the time to prepare for the returning. In addition, some of them were longing for the coming back for long time.

### 5.1.2 Challenges and contributions

The main challenges presented by teachers during the first phases of ERT, according all data analyzed, were the challenges related with lack of resources, and lack of skills for online teaching/learning, which also provoked a work-overload because they had to adapt and implement new strategies, in addition to the administrative requirements to adapt courses to digital modalities. In the case of students, the lack of autonomy, self-management skills and motivation were the main issues, while for teachers, they were the inability and inexperience with the use of technological learning tools. As the situation evolved, they also faced challenges related with social interaction, and physical and health issues, also reported in previous literature.

Concerning the contributions, teachers presented a noticeable improvement in the knowledge and use of technologies for teaching and learning, as well as an awareness of the importance of continuous training. Additionally, there were also improvement in other aspects, such as development of empathy, resilience, creativity, and organization skills. Furthermore, there can also be mentioned some temporary contributions of ERT, particularly the optimization of time because of the transportation time saved.

### 5.1.3 Institutional response and support

During the first moments of the transition, the support given formally by the institution was limited to economic support for helping teachers with their sudden technological expenses. Once the first shock has passed, and the ERT produced by the pandemic seemed to last more than expected, the institution offered and promoted more training courses for the use of technology, which included the use of video conferencing and repository platforms, material design, and tests creation, among others. Additionally, equipment was provided for teachers and students who did not have the resource.

Besides, one aspect that has not been mentioned in the revised literature, but has been found in the study, is the containment support, which participants seem to have

noticed and appreciate. Certainly, the institution has shown sympathy and understanding to the academic community, as they were flexible and patient with the demanded requirements. One particular action that exemplifies this understanding and support is the permission given to students to drop out their subjects at the middle/end of the semester, in order to not affect their grades.

### 5.1.4 Perceived institutional readiness

Administrators of the faculty declared being confident about the readiness of the institution to face new similar emergency scenarios, because the experience given by the past ERT period has contributed to the PD of teachers, which know now how to use the technology for teaching. Additionally, all teachers have acquired suitable equipment for online lessons, and the institution is also technologically well prepared, with the availability of online curricula and the digitalization of courses content.

In the case of teachers, some indicators of readiness suggested by the literature were acknowledged by participants, such as the continuous training and educational platforms availability. However, some of them mentioned that students in general were not prepared for learning through online modalities, as they lack the self-management abilities required. In this sense, even if they feel more technologically prepared, and think that the institution has enough material resources, there are still perceived some opportunity areas that need to be address in order to be completely ready for a new similar experience.

## 5.3 Contributions

In the field of education, this study contributes to the understanding of the impact of ERT implemented for long periods on institutions and stakeholders, as it complements the findings of previous works by shedding light also on the importance of institutional actions for overcoming this kind of emergencies. In addition, the results of this study confirmed previous suggestions regarding the evolution of perceptions towards ERT experiences, which seem to be more positive once the initial shock passes and people start adapting to the new conditions. In a more local level, this study highlights some elements to think off in order to be prepared for future emergencies.

## 5.4 Limitations

One of the main limitations of this study is related with the measurement of perceptions, because as Clifton and Carranco (2018) pointed out, asking about phenomena long after they have happened may result in different outcomes than asking at the moment of the event, because of the unknown stability of perceptions overtime. Furthermore, since the context of this study is very specific, results cannot be generalized to other contexts. Finally, since teachers participating in the interviews were only a little part of the total sample because of participant' availability, there are some results of the questionnaire that can still be deepened.

## 5.5 Further research

This study can be the basis for future research concerning the impact on education of the institutional and teachers' PD caused by ERT. Also, a study following students' perception on institutional and teachers' support during crisis could be of great interest, as well as a study concerning students' perceptions of education after COVID-19, to see if the reported teachers' professional growth and institutional development is also perceived by learners. Moreover, a follow-up study could be needed, in order to see if the ERT contributions found have long-lasting effects or they are temporary.

Finally, as the present study concern mainly the institutional preparedness to face ERT scenarios similar to the one we lived with the COVID-19 pandemic, a study showing the indicators of preparedness for emergency scenarios in different conditions, for example, when there is no availability of internet connection, or when people cannot stay in their homes but in shelters due to natural disasters, would be of great interest, considering that Mexico is a country particularly prone to suffer earthquakes.

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## Appendix 1: Questionnaire

Sección 1 de 9

# Cuestionario de experiencias relacionadas a la enseñanza remota de emergencia

El presente cuestionario forma parte de una investigación para el trabajo de grado de maestría. Pretende obtener información sobre su experiencia con la enseñanza remota de emergencia, término empleado para designar la modalidad remota en la que estuvimos trabajando debido a los confinamientos por la pandemia de COVID-19, y diferenciarla del aprendizaje formal y planeado en línea (online learning). Por favor responda con toda honestidad. Sus respuestas serán tratadas de manera anónima y únicamente para fines investigativos

Correo *

Correo válido

Este formulario registra los correos. Cambiar configuración

Después de la sección 1 Ir a la siguiente sección

Sección 2 de 9

Datos personales

Descripción (opcional)

Sexo *

- Hombre
- Mujer

Nacionalidad *

- Mexicana
- Estadounidense
- Francesa
- Otra...

Edad *

- 30 años o menos
- 31 a 40 años
- 41 a 50 años
- 51 a 60 años
- 61 a 65 años
- más de 65 años

Grado de estudios *

- Licenciatura
- Maestría
- Doctorado
- Otra...

Años de servicio docente *

- 1 a 5 años
- 6 a 10 años
- 11 a 15 años
- 16 a 20 años
- 21 a 25 años
- 26 a 30 años
- más de 30 años

Años de servicio docente en la BUAP *

- 1 a 5 años
- 6 a 10 años
- 11 a 15 años
- 16 a 20 años
- 21 a 25 años
- 26 a 30 años
- más de 30 años

Después de la sección 2 Ir a la siguiente sección

Sección 3 de 9

Experiencia previa online

Descripción (opcional)

Antes del confinamiento por la pandemia de COVID-19, ¿contaba con experiencia impartiendo clases en línea? *

- Sí
- No

Después de la sección 3 Ir a la siguiente sección

Sección 4 de 9

Detalles sobre la experiencia impartiendo clases online previas al confinamiento

Descripción (opcional)

¿Tuvo algún tipo de capacitación para impartir las clases en línea previas al confinamiento? De ser así, indique qué tipo de capacitación fue (cursos en línea, talleres presenciales, manuales de plataformas). ¿Quiénes proporcionaron dicha capacitación (institución educativa, programa en línea, empresa, etc.)? *

Texto de respuesta larga

Antes de la etapa de confinamiento por COVID 19 ¿Cuántos años de experiencia tenía impartiendo clases en línea? *

Texto de respuesta corta

¿Cuáles materias impartía? *

Texto de respuesta corta

¿Cómo describiría su experiencia general impartiendo esas clases en línea? *

Texto de respuesta larga

Después de la sección 4 Ir a la siguiente sección

Sección 5 de 9

Experiencia general con la enseñanza remota de emergencia

Descripción (opcional)

¿Cómo describe en general su experiencia impartiendo clases en línea durante el confinamiento? *

Texto de respuesta larga

¿Recibió algún tipo de apoyo institucional (no necesariamente económico) para sobrellevar la situación de enseñanza remota de emergencia? Especifique. *

Texto de respuesta larga

Después de la sección 5 Ir a la siguiente sección

Sección 6 de 9

Retos de la enseñanza remota de emergencia

Descripción (opcional)

Para cada uno de los retos relacionados con la enseñanza remota de emergencia mencionados en la siguiente tabla, elija la opción que mejor represente su experiencia

Cuadrícula de varias opciones

| Filas | Columnas |
|---|---|
| 1. Falta de recursos para realizar su trabajo... | Nunca lo experimenté |
| 2. Problemas de conectividad a internet | Raramente |
| 3. Falta de capacitación docente | Ocasionalmente |
| 4. Falta de interacción con colegas | Frecuentemente |
| 5. Falta de interacción con alumnos | Muy frecuentemente |
| 6. Problemas para localizar a los alumnos | Añadir una columna |
| 7. Problemas para garantizar la asistencia ... | |
| 8. Sobrecarga de trabajo tecno-pedagógico | |
| 9. Sobrecarga de trabajo administrativo | |
| 10. Problemas de salud mental personales ... | |
| 11. Problemas de salud mental de los estu... | |
| 12. Falta de un espacio apropiado para trab... | |
| 13. Falta de autonomía por parte del estudi... | |
| 14. Falta de capacitación de los estudiante... | |
| 15. Añadir fila | |

Aparte de los mencionados anteriormente, ¿Enfrentó algún otro reto docente durante el periodo de enseñanza remota de emergencia? Especifique. *

Texto de respuesta larga

Después de la sección 6 Ir a la siguiente sección

Sección 7 de 9

Aportaciones de la enseñanza remota de emergencia

En una escala del 1 al 5 seleccione su nivel de acuerdo con cada una de las siguientes declaraciones

La transición repentina al aprendizaje remoto me hizo darme cuenta de problemas ya existentes en mi entorno laboral que se exacerbaron debido a la emergencia. *

- Completamente en desacuerdo
- En desacuerdo
- Ni en desacuerdo ni en acuerdo
- De acuerdo
- Completamente de acuerdo

La enseñanza remota me dio la oportunidad de innovar mi práctica docente y proponer actividades más interactivas *

- Completamente en desacuerdo
- En desacuerdo
- Ni en desacuerdo ni en acuerdo
- De acuerdo
- Completamente de acuerdo

Como consecuencia de la implementación del aprendizaje remoto, noté un aumento en el acceso a recursos digitales de mis alumnos *

- Completamente en desacuerdo
- En desacuerdo
- Ni en desacuerdo ni en acuerdo
- De acuerdo
- Completamente de acuerdo

Ahora conozco más herramientas y plataformas educativas que antes de la etapa de confinamiento *

- Completamente en desacuerdo
- En desacuerdo
- Ni en desacuerdo ni en acuerdo
- De acuerdo
- Completamente de acuerdo

Ahora utilizo muchos más recursos y herramientas digitales para mis clases *

- Completamente en desacuerdo
- En desacuerdo
- Ni en desacuerdo ni en acuerdo
- De acuerdo
- Completamente de acuerdo

Debido a la dinámica de trabajo independiente en casa aprendí a organizar mejor mi tiempo *

B I U

- Completamente en desacuerdo
- En desacuerdo
- Ni en desacuerdo ni en acuerdo
- De acuerdo
- Completamente de acuerdo

Ahora me siento más seguro(a) de mi praxis y mis habilidades docentes que antes de la etapa de confinamiento *

- Completamente en desacuerdo
- En desacuerdo
- Ni en desacuerdo ni en acuerdo
- De acuerdo
- Completamente de acuerdo

Debido a esta nueva modalidad educativa he asistido a más cursos y capacitaciones para mejorar mi práctica docente *

- Completamente en desacuerdo
- En desacuerdo
- Ni en desacuerdo ni en acuerdo
- De acuerdo
- Completamente de acuerdo

Esta experiencia de enseñanza remota me ha dado la oportunidad de investigar nuevas problemáticas educativas *

- Completamente en desacuerdo
- En desacuerdo
- Ni en desacuerdo ni en acuerdo
- De acuerdo
- Completamente de acuerdo

El incremento en el uso de herramientas tecnológicas ha facilitado mis investigaciones (por ejemplo permitiendo aplicar cuestionarios o entrevistas a más gente de manera remota, entre otros) *

- Completamente en desacuerdo
- En desacuerdo
- Ni en desacuerdo ni en acuerdo
- De acuerdo
- Completamente de acuerdo

He logrado publicar un artículo (o más) en una revista prestigiosa gracias a una investigación que hice a partir de la implementación de la enseñanza remota de emergencia *

- Completamente en desacuerdo
- En desacuerdo
- Ni en desacuerdo ni en acuerdo
- De acuerdo
- Completamente de acuerdo

He conseguido una o más certificaciones o diplomas con valor curricular gracias a las capacitaciones que he tomado a partir de la etapa de confinamiento *

B I U

- Completamente en desacuerdo
- En desacuerdo
- Ni en desacuerdo ni en acuerdo
- De acuerdo
- Completamente de acuerdo

Considero que mi relación con mis compañeros de trabajo es más estrecha ahora, ya que tuvimos que apoyarnos y colaborar para superar juntos los retos de la enseñanza remota de emergencia *

- Completamente en desacuerdo
- En desacuerdo
- Ni en desacuerdo ni en acuerdo
- De acuerdo
- Completamente de acuerdo

Las nuevas habilidades que he adquirido durante la enseñanza remota de emergencia me han permitido conseguir un mejor puesto en el trabajo *

- Completamente en desacuerdo
- En desacuerdo
- Ni en desacuerdo ni en acuerdo
- De acuerdo
- Completamente de acuerdo

¿Considera que esta experiencia de enseñanza remota en tiempos de crisis aportó algún beneficio a su desarrollo profesional? Explique

Texto de respuesta larga

Después de la sección 7 Ir a la siguiente sección

**Sección 8 de 9**

Desarrollo de la experiencia con la enseñanza remota de emergencia

Para esta sección, es necesario que recuerde cómo se sintió durante las distintas etapas de este periodo de enseñanza remota. Para el caso de nuestra institución, esto comprende de finales del periodo de primavera 2020 a otoño 2021, tiempo durante el cual la institución permaneció completamente cerrada. Por favor, tome unos minutos para recordar su experiencia.

¿Cómo se sintió al saber que tenía que cambiar su enseñanza a una modalidad remota? *

- Me sentí tranquilo(a) porque ya tenía experiencia dando clases en línea
- Me causó incertidumbre, pero tenía confianza en mis habilidades
- No pensé mucho al respecto
- Solo me dejé llevar
- Me causó estrés porque no sabía cómo manejar la situación
- Me causó mucho estrés porque no tenía confianza en mis conocimientos y habilidades tecnológicas
- Otra...

¿Cómo describe su experiencia con la enseñanza remota durante el periodo de primavera 2020? *

- Muy estresante y llena de retos y obstáculos
- Muy desafiante pero llena de aprendizajes.
- Me dio satisfacción superar los retos
- Fue una experiencia tranquila.
- Pensé que no duraría mucho esa situación y me tomé las cosas con calma
- Sencilla porque me siento cómodo(a) con el uso de la tecnología
- Excelente. Siempre quise trabajar desde casa y disfruté mucho poder hacerlo
- Otra...

Después de un par de meses trabajando remotamente ¿Cómo describiría su experiencia? (periodo de otoño 2020/primavera 2021) *

- Los retos eran cada vez más desafiantes y yo sólo quería que terminara.
- Encontraba cada vez nuevos retos que me estresaban pero poco a poco empezaba a adaptarme
- Me sentía tranquilo(a) y no me exigía demasiado.
- Hacía lo que podía con los recursos que tenía.
- Había superado los principales retos y me sentía más tranquilo en mi desempeño docente
- Ya me sentía confiado(a) con mi práctica docente en línea y desarrollé gusto por trabajar desde casa
- Otra...

Para el periodo de otoño 2021, después de año y medio de enseñanza remota ¿Cómo describiría su experiencia? *

- No me sentía cómodo(a) con la situación ni con mi desempeño. Considero que no hubo ninguna mejora ...
- Me sentía tranquilo(a). Ya no me estresaba tanto la situación, pero tampoco me provocaba una satisfac...
- La situación me era indiferente. Me limitaba a cumplir con lo que pudiera esperando el regreso a activida...
- Me sentía más cómodo(a) con la situación y estaba satisfecho(a) con mi desempeño
- Me sentía muy a gusto y considero que mejoré mucho mi práctica docente en línea
- Otra...

Después de 2 años de confinamiento y enseñanza remota ¿Cuál era su postura respecto al regreso a clases presenciales? *

- Ya anhelaba el regreso. No hay nada como las clases presenciales
- Me ilusionaba regresar por la convivencia, pero no consideraba que fuera indispensable para el aprendiz...
- Me era indiferente. No tengo ninguna preferencia y consideraba que de cualquier forma los objetivos del ...
- Estaba cómodo(a) trabajando en línea por lo que no me urgía regresar, pero tampoco estaba en contra d...
- La verdad no quería regresar. Me gustó trabajar desde casa y considero que la modalidad remota fue mu...
- Otra...

¿Considera que el periodo tan largo de tiempo que pasamos como institución en la modalidad remota fue más positivo o negativo? *

- Definitivamente negativo. Hubo mucho rezago y no obtuve ningún tipo de beneficio o aprendizaje de la si...
- Fue negativo porque hubo rezago. Sin embargo creo que aprendí muchas cosas y pude desarrollar más ...
- Creo que tuvo tantas cosas negativas como positivas.
- Fue más positivo, ya que nos permitió desarrollar nuevas habilidades
- Definitivamente positivo. Se favoreció el desarrollo profesional y ahora estamos mejor preparados com...
- Otra...

Después de la sección 8 Ir a la siguiente sección

Sección 9 de 9

Fin del cuestionario

Muchas gracias por su participación en este cuestionario. Recuerde que sus respuestas son anónimas y únicamente se usarán con fines investigativos.

## Appendix 2: Teachers' interview protocols

Bienvenida e introducción: Buenos días profesores, les agradezco mucho su presencia en este día. Como se les mencionó antes, esta entrevista grupal pretende profundizar en sus experiencias y opiniones compartidas a través del cuestionario que contestaron previamente acerca de la enseñanza remota de emergencia, que es….

Por favor, les pido que lean y firmen la carta de consentimiento que se encuentra en sus lugares…

Ahora, comencemos con esta entrevista… Me gustaría que empezáramos con aquellos de ustedes que declararon tener experiencia dando clases online previo a la enseñanza remota de emergencia por COVID 19….

1. ¿Cómo consideran que fueron esas experiencias comparadas con la vivida durante la enseñanza remota debido a la contingencia?

¿En qué se asemejan/diferencian?

2. Los resultados obtenidos por el cuestionario que contestaron arrojan que los retos más grandes presentados durante la enseñanza remota de emergencia fueron…. ¿Podría proporcionar más detalles cobre ello?

3. ¿Qué estrategias utilizó para superar esos retos? ¿Qué tan efectivas fueron esas estrategias?

4. ¿Notó alguna diferencia en los retos presentados en los diferentes cursos (lengua vs contenido o semestres avanzados vs nuevo ingreso)?

5. ¿Cuáles de los retos mencionados considera que pueden presentarse también (en mayor o menor medida) durante la enseñanza fuera de un escenario de crisis/ en tiempos ordinarios? ¿Cree que se puedan utilizar las mismas estrategias para superarlos?

Pasemos ahora a la parte de las contribuciones…

6. Según los datos recolectados por el cuestionario, de los beneficios más importantes que trajo este periodo de ERT a su desarrollo profesional fueron… ¿podrían proporcionar más detalles al respecto?

7. Ahora que el periodo de enseñanza remota de emergencia ha terminado, ¿Sigue aplicando lo que aprendió durante ese periodo en su práctica docente diaria? (ej. el uso de herramientas digitales, capacitación constante etc.)

8. La literatura existente sobre el tema de ERT menciona que esta crisis generó oportunidades de crecimiento para los docentes como lo son…. ¿Considera que usted tuvo algún impedimento (interno o externo) para poder aprovechar esas oportunidades? (es decir, cree que pudo haber obtenido más beneficios/aprendizajes de esta experiencia?)

Hablemos ahora del apoyo otorgado por la institución. De acuerdo con la información recabada por el cuestionario, la institución apoyó a los docentes con... durante esta etapa de enseñanza remota.

9. ¿Considera que ese apoyo fue de utilidad y basado en las verdaderas necesidades de ustedes como docentes?

¿Alguna vez sintió que el apoyo ofrecido fuera más bien una carga u obligación extra?

¿Tomaron en cuenta sus opiniones para ofrecer los apoyos?

10. ¿Considera que el apoyo recibido fue suficiente para enfrentar los retos que presentó esta situación? ¿Por qué?

11. ¿En su opinión, las oportunidades de recibir apoyo institucional fueron debidamente comunicadas y de fácil acceso para los docentes?

La posibilidad de volver a vivir una crisis similar en el futuro, que nos obligue a volver a la enseñanza remota de emergencia es latente…

12. ¿Considera que este periodo de enseñanza remota de emergencia haya generado un cambio en la institución que nos permita afrontar con éxito una nueva situación así? (ej. Capacitaciones constantes, implementación de cursos permanentes en línea etc.)

13. ¿Qué considera que la institución puede/debe hacer para estar preparada para otra emergencia similar?

## Appendix 3: Administrative staff's interview protocol

Bienvenida, introducción y definición de ERT; Buenos días profesor(a). Le agradezco mucho el tiempo que me concede para esta entrevista. Como se le comunicó antes, el objetivo de ésta es…

Le pido por favor que lea y firme esta carta de consentimiento que...

Ahora comencemos.

1. Cuáles considera que fueron los principales retos educativos que se enfrentaron como institución durante la enseñanza remota de emergencia?

2. ¿Qué acciones se tomaron para garantizar la comunicación con el personal y el acceso a la información relevante de la facultad y los programas educativos? (ej. utilizaron redes existentes, generaron unas nuevas etc.)

3. ¿Qué acciones fueron tomadas por parte de la facultad para apoyar a los docentes durante la enseñanza remota de emergencia?

4. ¿Estas acciones/iniciativas consideraron la opinión y las necesidades de los maestros?

5. ¿Hubo iniciativa de los profesores para proponer o solicitar capacitaciones para mejorar su desempeño?

6. ¿Cómo percibió la participación de los docentes en los cursos/talleres de capacitación facilitados por la institución?

7. ¿Considera que la experiencia con la enseñanza remota de emergencia ha contribuido a la evolución o desarrollo de la institución de alguna manera? (ej. Implementación de programas permanentes en línea, capacitación docente constante, mejora de infraestructura y recursos…)

La posibilidad de que otro evento de emergencia similar ocurra en el futuro y nos obligue a volver a la enseñanza remota por un tiempo es latente…

8. ¿Considera que la institución cuenta con los recursos y herramientas necesarios para enfrentar otro posible evento de emergencia similar?

9. ¿Qué (más) cree que se pueda hacer a nivel institucional para estar preparados (para otro evento similar de emergencia)?

10. ¿Cree que sea conveniente para la institución el contar con más opciones permanentes de clases en línea y/o a distancia?

**Appendix 4: Informed consent**

**Benemérita Universidad Autónoma de Puebla**

**Facultad de Lenguas**

**Maestría en la Enseñanza del Inglés**

**Consentimiento Informado**

Puebla, Pue. a ___ de _____ del 2023

Yo, _____, profesor de la Facultad de Lenguas, del programa de LEI/LEF acepto participar voluntariamente en la presente investigación para la realización de la tesis de la alumna Ana Karen Vázquez Valdez, para obtener el grado de Maestría en la Enseñanza del Inglés, bajo la dirección de la Dra. Vicky Ariza Pinzón.

He sido informado(a) de que el propósito de este estudio es conocer las experiencias de los profesores con la Enseñanza Remota de Emergencia vivida durante el periodo de confinamiento por la pandemia del COVID 19, así como las percepciones de los docentes y personal administrativo sobre la preparación que se tiene como institución para enfrentar otro evento de Enseñanza Remota de Emergencia en el futuro.

Me ha sido informado que mi participación es voluntaria y que la información que yo provea será estrictamente confidencial y usada únicamente para los propósitos de esta investigación. Así mismo, es de mi conocimiento que estoy en libertad de cancelar mi participación cuando así lo considere adecuado, y puedo solicitar información adicional sobre los resultados derivados de la investigación cuando ésta haya concluido.

De tener preguntas sobre mi participación en el estudio, puedo contactar a Ana Karen Vázquez Valdez (ana.vazquezval@alumno.buap.mx)

_____

Nombre y firma del participante