Emergency Remote Educational Challenges During COVID-19: The Case of Secondary Education Teachers in Greece

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Introduction

In March 2020, 87.4% of the global enrolled learners and over a billion and a half young people in 181 countries were forced to abruptly move to emergency remote learning due to COVID-19 pandemic (European Schoolnet, 2020a; Raluca et al., 2020). In these unprecedented times, teachers, instructors and professors were the first to undertake tasks during the shifting in delivery mode (Doucet et al., 2020; Hodges et al., 2020) and the ones to make the best decisions for their students. However, online education in such circumstances, defined as "emergency remote teaching", differs significantly from a high-quality online education offered in non-emergency conditions (Hodges et al., 2020), and, as no time was granted for a smooth transition to the online educational context, teachers were faced with a totally new and difficult experience.

Given that remote emergency education remains an "uncharted territory" (European Schoolnet, 2020b), this small-scale case study with a qualitative research design aims to fill the current research gap by exploring the difficulties Greek secondary school teachers encountered during the lockdown period. However, as every problem can be an opportunity in disguise, this research also considers some possible future changes which may be able to transform the emergency remote teaching into effective online/distance education after the pandemic.

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Background to the Study

Greek Education System

The Greek education system is under the central responsibility and supervision of the Ministry of Education, Research and Religious Affairs (MofERRA). Compulsory education consists of primary education (*Demotiko*), which lasts 6 years, and lower Secondary Education (*Gymnasium*), which lasts 3 years. Non-compulsory Upper Secondary Education lasts 3 years (OECD, 2018). Students who want to pursue tertiary education take the Panhellenic (Greek) National exams, which give access to the higher education institutions (HEIs) (OECD, 2018). Given the geographical conditions on the islands and in mountainous areas, most schools are small with a few students (European Commission/EACEA/Eurydice, 2019). More specifically, according to the 2017 statistical data, one-third (34%) of schools were in large urban cities, while the rest of them were sparsely distributed in rural or semi-urban areas (OECD, 2018).

Digital Platforms and Technical Support

In Greece, the main supporting body for the digital education at schools is the Computer Technology Institute and Press "Diophantus", which supports the organization and operation of the electronic infrastructure of the MofERRA, the schools and other educational actors (European Commission/EACEA/Eurydice, 2019). Additionally, the IT and the New Technologies Coordinators, who are based on the regional support and educational planning centres (PEKESES/PEKES) (Regional Directorate of Primary and Secondary Education of Crete, 2020), are responsible for providing technical support and implementing traditional and new technologies in school units and laboratories (Agency, 2020).

During the lockdown period, training seminars were conducted by the PEKESES or the Educational Work Coordinators within them, who have the scientific responsibility of all the teachers in their scientific subject (*Regional Center for Educational Planning of Western Greece*, n.d.). Finally, there are various educational material portals certified by the Ministry of Education, which are available for the teachers at schools (i.e. *www.e-yliko.gr*, *http://dschool.edu.gr*, *Photodentro* (European Commission/EACEA/Eurydice, 2019)).

Teachers' In-Service Training in Information and Communication Technologies (ICTs)

There have been two stages of the ICTs in-service training provided by the Greek MofERRA. The first one (*A-level training*), which included training in technical skills, was widespread and many secondary school teachers attended this training. The second stage, which is still in progress, is the continuation of an older respective project *B-Level In-Service Training* completed in 2008 and aims to "familiarize teachers with appropriate educational software and the skills to adopt/integrate ICT in their everyday teaching practices" (Nikolopoulou & Gialamas, 2016, p. 63). However, not too many teachers have attended B-level training so far (YPEPTH, 2012, cited in Nikolopoulou & Gialamas, 2016).

Literature Review

Distance/Online Learning and Emergency Remote Education

Distance learning in this research, follows Schlosser and Simonson's (2009) definition, which is "institution-based, formal education, where the learning group is separated, and where interactive telecommunication systems are used to connect learners, resources, and instructors" (p. 1). Related terms to distance learning, but not identical, are online learning, E-learning, virtual schooling. For the purposes of this study, online and distance learning/education will be used interchangeably for both synchronous and asynchronous delivery mode.

Emergency remote teaching (ERT) is different from distance learning, as, according to Hodges et al. (2020), "it is a temporary shift of instructional delivery to an alternate delivery mode due to crisis circumstances" (para. 13). This means that the delivery mode will return to face-to-face classes after the crisis since the main aim of the remote emergency learning is to ensure that everyone would have access to education during an emergency.

Barriers to Distance Learning

Emergency remote education under the circumstances of a pandemic is a new phenomenon with a limited number of previous studies. However, it is obvious that one striking similarity between distance and remote emergency education is the delivery mode, which, in both cases, is via interactive telecommunication systems with the learning group physically separate. Therefore, in this research, it is expected that some of the challenges faced by the teachers during emergency remote education would be the same as the ones that occur in a distance education context.

According to Galusha's (1997) classification, challenges regarding the distance education may concern students, teachers and the organization. Some of the challenges students face are lack of social interaction, lack of motivation, lack of feedback and poor provision of student support and services. They also suffer from alienation and isolation, accessibility issues and lack of skills in relation to distance learning (Assareh & Hosseini Bidokht, 2011; Becker et al., 2013; Galusha, 1997; Kaya & Önder, 2002 in Hebebci et al., 2020; Muilenburg & Berge, 2001). On the other hand, barriers related to the teachers are the lack of teachers' experience and technical expertise, the lack of support for distance learning, faculty compensation and time (Galusha, 1997; Muilenburg & Berge, 2001). The lack of professional training has, also, been reported since "for decades, scholars have pointed out that educators have been "ill-prepared to teach with technology" (Foulger et al., 2017, p. 418). Moreover, impediments relevant to the organization are poor infrastructure, technical problems and administrative and legal issues (Galusha, 1997; Muilenburg & Berge, 2001). More specifically, the lack of management or administrative support is mentioned as a common obstacle in the online education (Becker et al., 2013). In the Greek educational context, Nikolopoulou and Gialamas (2016) noted that the three main barriers to online education are the "lack of confidence", "lack of equipment" and the "lack of support" (Nikolopoulou & Gialamas, 2016, p.59).

Research Method

Research Methodology

This is a small-scale case study with no conclusive results, which aims to explore the phenomenon of emergency remote education "within its real-life context" (Yin, 2009, p.14) by following a qualitative methodology. More specifically, the current study aims to answer the main question – "What are the challenges that Greek Secondary Education teachers encountered during the first wave of the COVID-19 pandemic?" – with the following sub-questions:

- How did Greek Secondary Education teachers view distance and emergency remote teaching and learning?
- What are the challenges the teachers faced during the implementation of emergency remote education?

In order to ensure adherence to ethics, a specific agreement process was carried out during which the participants were informed about the purpose of the research, the research procedure to be followed, its risks and benefits as well as the procedures used to protect anonymity and confidentiality. The voluntary nature of the research participation was also noted. All the participants gave their informed consent to be interviewed and for their responses and quotes to be used in this study with the knowledge that findings would be reported cumulatively.

The participants were chosen by the method of purposeful sampling (Elo et al., 2014; Patton, 2002), following the criterion of the best knowledge and experience regarding teaching in Secondary Education and of the use of emergency remote education. More specifically, 17 mostly experienced (70% had more than 10 years in-service) Secondary Education teachers from various geographical areas in Greece participated in the research. They taught various subjects online, either synchronously or asynchronously, during the lockdown period. The participants were recruited from the past professional environment of the researcher, who had no close personal or professional relationships with them at the time of the research. Due to the COVID-19 pandemic and the social distances measures taken during the lockdown period, the semi-structured interviews were conducted online during the second week of May 2020, including questions pertaining to the obstacles the teachers encountered while teaching online during the period of COVID-19 pandemic.

Data Analysis Process

Emergency remote education under the circumstances of a pandemic is a new phenomenon with a limited number of previous studies addressing it at the time the research was conducted. Therefore, to analyse the data, an inductive content analysis (Elo & Kyngäs, 2008) was carried out with no preconceived categories formed. Rather, the categories flowed from the data. The data analysis process focused on the manifest content "in order to organize large amounts of text into categories" (Kleinheksel et al., 2020, p. 128), in order to "answer the questions *who*, *what*, *when* or *where*" (Erlingsson & Brysiewicz, 2017, p.96).

Following Creswell's (2014) six-step approach, there was a data transcription stage in a Microsoft Word sheet, which were then analysed by hand. The data were read word by word to derive codes by highlighting the exact words from the text. To better visualize the data, the researcher gradually transferred the transcripts from Microsoft Word to Excel spreadsheet – "in vivo codes" (Creswell, 2014, p. 244). Next, the captured key thoughts or concepts were labelled so that a coding occurred. Finally, the researcher linked and grouped the codes into larger categories "by examining codes that the participants discuss most frequently" (Creswell, 2014, p.245), which were, finally, grouped into larger clusters.

Trustworthiness

The trustworthiness of the content analysis has been ensured by following Elo et al.'s (2014) checklist of questions during all the phases of the research (i.e., preparation, organization, reporting). Additionally, the questions were both open- and closed-ended to extract data for the intended purpose (i.e., about the obstacles they encountered while teaching online during the period of COVID-19 pandemic). During the interviews, further questions were posed to clarify any points, such as

"what do you mean?", with special attention paid not to influence the participants' answers in any way (Elo et al., 2014).

The researcher's self-evaluation and self-monitoring was constant during the whole process of the data collection process to avoid any bias and ensure trustworthiness. Furthermore, to minimize subjective interpretation of the data as much as possible, the researcher was fully aware of her assumptions and expectations regarding the findings by recording them before starting the analysis process. At the end of the data analysis process, these notes were crosschecked with the final categories found to examine if and how the researcher's assumptions and expectations had influenced the data analysis process. Finally, to increase credibility, during the data analysis period, there was a coding/recoding procedure within an interval of 1 week.

Findings

Demographics

Seventeen Secondary Education teachers participated in the research, with some of them teaching in more than one school at the time of the research. More specifically, the participants taught in 6 lower secondary education and 14 senior high secondary education schools. In terms of the geographical distribution, the schools were situated in rural (8), urban (4) and semi-rural (8) areas, with nine of them being small (50-150 students), eight medium (150-300 students) and three large (300-400 students). Most of the participants (70%) were experienced teachers with more than 10 years in service. The participants' ages ranged from 35 to 55 years, and half of them were married with children.

Most of the participants were ICT teachers (Table 1).

Apart from one, all had a formal qualification in ICT in general or in education (Table 2).

As soon as the schools closed due to COVID-19, teachers were asked on a voluntary basis to deliver online lessons to support the students. All participants were involved in the asynchronous distance education, with 12 of them also delivering synchronous online sessions. During the lockdown period, the participants used a

Table 1 Teachers' specialization

Participants	Subjects
9	Greek Language/Literature
3	Science
2	Maths
1	English
1	Physical Education
1	ICT

Table 2 Qualifications in ICTs

Participants	Qualifications
1	No qualification
2	ECDL (general)
7	A-Level in-service training (education specific)
5	B-Level in-service training (education specific)
1	Master's in learning technologies (education specific)
1	Bachelor in ICTs

variety of LMSs and online tools while engaging in emergency remote education, all suggested by the Ministry of Education, such as the asynchronous digital platforms (i.e. *E-class, E-me*), along with the *WebEx* platform for the synchronous online sessions.

Obstacles and Challenges During the Pandemic

As shown in Table 3, there is one major challenge presented by all the participants, which is relevant to the lack of personal communication and interaction with the students. This specific issue was particularly linked to the problems caused by the online delivery mode. The rest of the obstacles identified by the participants are relevant either to the students or to the teachers, or they are linked to organizational issues. Table 3 shows that the most common challenges presented are the lack of personal communication with the students (all the participants), the lack of equipment and Internet (13 out of 17), students' low participation (13 out of 17) and the lack of teachers' training regarding the online education (11 out of 17).

Lack of Personal Communication and Interaction with the Students

All the participants believed that there were problems in personal communication and interaction with the students. Participants indicated that personal communication is easier to maintain in the face-to-face classroom when there is eye contact (P2, P4, P8, P10, P11, P13, P14, P15). Additionally, they stated that emotions are better expressed in face-to-face lessons than online (P1, P3, P14, P17). The lack of "visual" and "personal" contact was a recurring theme among the participants. Participants also stated that they felt that the face-to-face lesson flows easier than online since the communication between students and teachers is more "direct" (P11, P13). Most notably, P11 stated:

Table 3 Obstacles and challenges

Codes	Categories
See, visual/eye contact Directly/direct communication/contact (Inter)personal communication	Lack of personal communication and interaction with the students (all the participants)
Bored, speak, respond, motivated, homework, feedback	**Students' issues** Low participation and interaction (P2, P4, P5, P6, P7, P8, P9, P11, P12, P13, P14, P16, P17)
Internet usage, skills, experience(d)	Lack of online skills (P2, P8, P15, P16)
Experience(d)/inexperienced, training	**Teachers' issues** Lack of knowledge and training (P1, P3, P4, P5, P6, P10, P11, P13, P14, P16, P17).
Work, overloaded, (extra)time	Workload (P11, P13, P14, P15, P16, P17)
Manage, control, check, hold accountable	Lack of control (P5, P9, P10, P13, P17)
Technical equipment, problems, Internet, computer, mobile	**Organizational issues** Lack of equipment and unreliable internet (P1, P2, P3, P7, P8, P9, P10, P11, P13, P14, P15, P16, P17)
Personal data, legal framework	Personal data issues (P2, P3, P12, P13, P14, P15, P16, P17)
Organization, guidelines, instructions, policy, Ministry of Education	Unclear or no governmental directives (P5, P9, P11, P12, P15)
Problems, support	Lack of support (P1, P4, P7, P14)

> *One of the disadvantages regarding distance education is that in general it does not promote direct communication with the students, even if you can see them (during the synchronous sessions) on camera. Asynchronous sessions are even worse. But even synchronous online education cannot replace face-to-face classes.*

Two of the participants mentioned problems relevant to the specific context of emergency remote education, in which there was minimum personal contact and interaction with the students because the teachers felt they had to follow the Ministry of Education suggestions to keep the cameras off (P4, P13).

Students' Issues

Students' Low Participation and Interaction

The lack of students' participation in both the synchronous and the asynchronous classes was a recurring topic in most of the participants' responses. It is worth noting that only one participant explicitly expressed his/her satisfaction with the students' participation (P10). Teachers noted that, while the students were enthusiastic about attending the lessons at the beginning of the lockdown period, after some time they stopped joining the synchronous online classes, with the attendance rate being lowered to only one-third of the students (P4, P6, P8, P11, P12, P13). The teachers also expressed their dissatisfaction about the efforts they needed to make in order to motivate students during the synchronous online sessions (P2, P4, P11), and they stated that the lack of students' interaction and feedback caused important difficulties in their teaching practice.

The teachers believed that the main reason for this was the fact that emergency remote education was not obligatory (P4, P5, P9, P13, P16, P17). The participants also mentioned that, according to the Ministry of Education guidelines, they were not allowed to teach new content, but only revise what the students had already been taught in class, which resulted in the students becoming bored (P4, P7). In addition, the teachers felt that the students were not responsive even when they were present during the synchronous classes (P5, P11, P17). They indicated that there was a lack of response because the students were not familiar with the online delivery mode, they lacked the necessary technical knowledge or they felt too embarrassed to engage with the lesson. Therefore, in some cases, even students who were responsive in the face-to-face classes were not willing to participate online (P12, P16).

> *The students are bored.* (P2)
>
> *What I miss are the students' responses. They don't speak at all… I wait for them to turn on their camera, but they don't….I think that the students are indifferent…they rarely attend the lesson or they enter the online class but they don't speak.* (P4)
>
> *The students are not easily motivated.* (P5)

According to the teachers, students' responses in the lower levels of Senior High School or Gymnasium were also low. However, as teachers argued, the final year students' attendance in face-to-face and online classes was equivalent (P6, P9, P14). More specifically, the participants indicated that the final year students preferred private lessons or studying intensively by themselves to prepare for the final university entrance exams (P7, P11, P13, P14).

Students' Online Skills

Five of the participants noted that students do not know how to use computers and online tools for educational purposes. For example, they said that the students did not know how to search for specific information to be used in an assignment (P14).

They added that students did not know how to write their texts by using digital tools (P2, P8), or how to use the platforms to communicate with their teachers and upload their homework (P15, P16).

Teachers' Issues

Teachers' Training and Knowledge

The results from this research show that, even though the teachers held formal qualifications in ICTs, they did not feel confident enough to use them during the lockdown period. In addition, there was the view amongst the interviewees that many teachers did not know how to use the synchronous platform Webex (P1, P3, P11). This may be related to the feelings of anxiety and distress that five of the participants expressed because they were not sure if the synchronous sessions would be successful and interesting for the students (P4, P13, P14, P16, P17). In addition, the feeling of uncertainty was linked to a feeling of insecurity mainly caused to the participants because they did not feel sure that they were able to effectively implement online teaching practices (P7).

The lack and the necessity of training was a recurring topic amongst the participants (P1, P3, P5, P6, P10, P14, P16, P17). Even though it was stated that there were some attempts by the Regional Education Centers to provide a fast-track training regarding the platforms, it was noted that these were held late, after the second week of the lockdown, when the teachers had already started their synchronous sessions with the students (P14). A further obstacle regarding the fast-track training was that not all the teachers had the same level of technical knowledge, and that the provided training courses were either too difficult or too easy for them to attend (P3, P4).

If there was training, the synchronous distance education would have been better. (P1)

I feel uncertain because there is no training with a suggested integrated framework to follow. As a result, I created a lesson on my own way without following any specifications. (P3)

Not every teacher is familiarized with the online educational tools or platforms. As a result, they chose not to carry out synchronous online lessons. A fast-track training by the Ministry of Education, the one of 15 hours that had been announced, may have been a solution to the problem. (P5)

The training is essential. The fact that somebody knows to use the tools does not mean that they use it pedagogically in the right way. It is not distance education to just upload a scanned pdf to E-class. (P6)

The Ministry of Education could have provided some training to those with no knowledge, especially to teachers over 55 years old who encountered difficulties in carrying out distance education and chose not to do anything. (P10)

I had no experience regarding distance education and there was no training before I started the synchronous sessions. When I started (the synchronous sessions), I did not know how to coordinate everything and everyone. I did not even know how the microphones worked. …After the first session, I was desperate. (P14)

It (remote emergency education) was very sudden, and we did not know anything. It was like you don't know anything about cooking and you are asked to get into the kitchen and

cook a meal. Training is necessary first for the teachers to acquire a level of knowledge and then to the students who should also be gradually trained. (P16)

I feel anxious, stressed and insecure because not all the teachers are on the same starting point regarding the knowledge of distance teaching. Training could solve this problem. (P17)

Workload

The extra time that the teachers needed to create their educational materials was also considered a problem. The findings revealed that, even though there was an abundance of online resources and materials to be used for each subject, these were not always appropriate for the level or the students' specific needs (P13, P16). Furthermore, two participants (P14, P17) noted that they had to adapt their materials so that they were functional for the new online teaching mode, by digitalizing them or by adding more detailed instructions and guidelines for the students who would access the assignments asynchronously on their own without the teacher being present. Moreover, one participant (P15) said that it was necessary to update all the materials he/she already used in class or online and to make them accessible to the students who would use mobile phones. In addition, P17 felt that, as it took him/her much time to search the internet for material, he/she preferred to adapt his/her own. Finally, P11 said that, especially at the beginning of the lockdown, there was an overload with emails and administrative school documents, which caused him/her anxiety, along with the abundance of online information related to the materials, which were difficult to be filtered and organized for his/her teaching purposes.

Lack of Control

Participants stated that during online teaching, they could not check whether the students were attending the lesson carefully or if they were involved in other activities at the same time (e.g. *just walking out their dog*, P17). On the contrary, during the face-to-face lessons, teachers felt that they had more control of what the students are doing (P5, P9, P10, P13, P17).

I feel that I can't lead the lesson in the direction I want, that I can't manage the situation and control the lesson. (P5)

There were problems that I could not control myself. For example, there was a period that I was not allowed to demand anything from the students. I could not check if the students had been doing their work or not as I did not have any visual contact. (P9)

Of course, students may have their computer on, but they may also be asleep. So, I can't control what the students do while we have a lesson. Apart from the lack of feedback, there is also a lack of control. (P10)

I cannot hold students accountable for submitting their work. I can't control what the students do while we are having a lesson. They may surf the internet or they may be doing something else. (P13)

Organizational Issues

Lack of Equipment and Unreliable Internet

Participants argued that one of the most significant challenges was the lack of equipment (e.g. computers) and reliable high-speed Internet. For example, it was noted that in many, mainly remote and rural, areas not only the students but also the teachers either did not have any access to the Internet or they had slow Internet speed and unstable Internet connections (P1, P2, P8, P9, P11, P13, P15, P16, P17). Consequently, it was difficult for both the teachers and the students to communicate, especially during the synchronous online sessions, since the cameras remained off due to poor Internet connection. Moreover, due to unreliable Internet, there were technical issues, and students could not use their microphones to speak and participate in the lesson (P9). In addition, due to technical problems, the web pages or the synchronous platform crashed (P10). These problems can also be associated with the communication and the interaction difficulties that all the participants agreed existed during emergency remote education.

One more practical issue identified by the participants in this research was that many children did not own computers as they were coming from poor families and they used their mobiles instead, which, nevertheless, were of old technology (P1, P3, P7, P8, P14, P15, P16). Therefore, according to the participants, it was not possible for them to carry out the assigned activities, either synchronously or asynchronously, since some of the platforms' applications were not compatible with the mobile operating system. Moreover, some teachers stated that in the cases where more than one member of the family needed to have access to the home computer for educational purposes, it was difficult for both the students and the teachers to participate in the synchronous sessions at the same time (P14). This resulted in increasing the feelings of anxiety, as P13 noted, because his/her two children also needed a computer for their synchronous sessions and there were not enough computers at home.

Personal Data Issues

Seven participants stated that personal data issues make them anxious (P2, P12, P13, P14, P15, P16, P17). For example, two participants noted that their anxiety was linked to the fact that if something went wrong there was no legal framework to protect both the teachers and the students (P2, P12). Furthermore, three participants described cases during the synchronous sessions when the students had violated the teachers' or other students' personal data (P3, P12, P16). Furthermore, P15 emphatically stated that the Ministry of Education did not take any measures to protect the students and the teachers or to make them aware of how important the personal data issues are. Moreover, P12 suggested that the Greek Ministry of Education could have followed the process that the Ministry of Education in Cyprus had

implemented regarding the personal data issue by having cameras deactivated during the synchronous sessions by default. Finally, some participants felt that they could not control who else may have been present during the lesson apart from the students (P13).

Unclear or No Governmental Directives

Some participants stated that emergency remote education was not very well organized by the Ministry of Education, especially during the first weeks of the lockdown. For example, it was argued that the guidelines of what to teach or which platform to use were not very clear. Moreover, there was a lack of instructions regarding personal data laws or how to organize the online materials (P5, P9, P11, P12, P15).

> *We were called to do administrative work, which could have been organised centrally by the Ministry of Education. For example, we were asked to gather the students' email addresses, register them on the network and send them email invitations to enter the platform. We wasted much of the time and effort to do it, while it could have been done by the Ministry (of Education).* (P5)
>
> *The most important thing is that there was not a collective organizational effort at a school level. For example, there could have been a common platform for the teachers to upload and share their material. However, this may not have been so easy to be created due to the emergency nature of online education. In general, I could say that remote emergency education was not well-organised. It was more an effort of necessity in an emergency. That is, we could say that we mostly adapted ourselves to a new situation which was not a well-organized effort and we did this without following a specific way*. (P9)
>
> *We knew what platforms the suggested ones by the Ministry of Education were, but there were no specific directions of how to use them.* (P11)
>
> *The remote emergency education should have been better organized. The Ministry of Education just said: "Do online lessons" and that was all. … I feel afraid because there is a general sloppiness displayed and there is no coordination.* (P12)
>
> *There was a lack of agreement regarding the policies to be followed. As a result, we could not do our job and the students could not handle it.* (P15)

Lack of Technical Support

Some of the participants mentioned the lack of technical support. For example, one participant noted that the most common technical help the teachers received was the platform's manual sent by email (P1), which, however, was not very useful to them. Additionally, GSN's helpdesk was overloaded and unable to respond to teachers' individual requests for help (P4). On the other hand, one participant felt that it was very helpful when the school's principal was actively engaged in providing technical support (P14) or when the educational work coordinator organized training sessions for a specific group of schools or teachers specialized in a specific subject (P4, P7).

Discussion

All the challenges faced by the participants during the pandemic are the same as the ones identified in the distance education research, apart from the teachers' feeling that they cannot control the students' learning. More specifically, the lack of social interaction, the unmotivated students, students' accessibility issues and students' lack of skills in relation to distance learning have also been substantiated in the literature (Assareh & Hosseini Bidokht, 2011; Becker et al., 2013; Galusha, 1997; Kaya & Önder, 2002 in Hebebci et al., 2020; Muilenburg & Berge, 2001). The same holds true for the teachers' issues, such as the lack of teachers' training and support for distance learning, the teachers' heavy workload and the lack of technical expertise (Galusha, 1997; Muilenburg & Berge, 2001; Foulger et al., 2017). Regarding the organizational issues, the poor infrastructure and the technology-related problems were particularly noted by the participants, agreeing with Nikolopoulou and Gialamas' (2016) findings. They identified the "lack of equipment" as one of the major problems in the Greek online educational context. The administrative and legal issues have been identified in the distance education literature (Galusha, 1997; Muilenburg & Berge, 2001). However, some of those presented by the participants are specifically linked to the emergency aspect of teaching, such as the lack of legal framework regarding the personal data and the lack of specific curriculum directions and guidelines.

Findings Within the Context of the Remote Emergency Education Worldwide

Most of the difficulties encountered by the participants in this research were also faced by the teachers worldwide during the first wave of COVID-19. For instance, the lack of communication and interaction between the teachers and the students was also faced by teachers in other countries, and it was linked to "low participation, lack of communication and connection problems" (Arora & Srinivasan, 2020, cited in Hebebci et al., 2020, p.279). Furthermore, the problem of the lack of equipment and Internet reported in the present research confirms the view that in emergency settings there is often a lack of "typical services provided by schools, such as IEP providers and supports" or "lack of electrical power, access to technology or reliable Internet" (Rush et al., 2016, cited in Trust & Whalen, 2020, p.194). It is noteworthy that participants linked the lack of equipment and reliable internet connection to accessibility issues, especially in rural or poorer areas. This has been particularly stressed in the literature as one of the main constraints that students may encounter in a crisis period, especially in low-income countries (Raluca et al., 2020). Similar accessibility issues due to poverty were also identified as a problem by teachers in other countries such as Turkey (Hebebci et al., 2020) and the USA (Stelitano et al., 2020).

The United Nations (2020) stresses that teachers' lack of preparation, training and support create additional stressors and barriers to teaching remotely, as, also, reported by the participants in this research. The same holds for the teachers in a research carried out in China during the pandemic, who stated that "they were not well-prepared for teaching online" (Zhang, 2020, p.8) or "that they felt powerless in classroom management or poor-prepared for remote teaching" (Zhang, 2020, p.10). In addition, in a research conducted by Trust and Whalen (2020) during the COVID-19 outbreak in the USA, one of the difficulties identified was the lack of teachers' knowledge about online/remote teaching strategies or tools. In the same research, it was particularly noted that the most important obstacle to the successful online teaching in such an emergency was that the teachers were not appropriately trained, educated or supported to design a high-quality instruction, which caused additional stress to them (Trust & Whalen, 2020). Apart from the lack of sufficient teacher training, the present research revealed that there was a gap in teachers' knowledge which has been foreseen by the literature as a possible problem at a time of crisis (Raluca et al., 2020).

Another challenge faced by the participants in this research was that they could not hold students accountable. Similar problems occurred during emergency remote education in other countries, such as in China, where the teachers felt that "it was hard to monitor students in remote learning" and "some students pushed back against learning in a remote mode such as silence or "disappearance" in-class interactions with teachers and other students" (Zhang, 2020, p.8). Similarly, in the USA "the most common response from teachers was that they lacked the ability to hold students accountable" (Marshall et al., 2020, p.5). Finally, the present research reveals some concerns or difficulties faced by the teachers, which were not widely found in other countries, such as the personal data issues, teachers' workload, problems caused by the unclear or no governmental directives and the lack of students' online skills.

Implications and Suggestions

The findings of this research have made visible the difficulties that teachers encountered during emergency remote education, which are the same as the ones existing in the distance education. Therefore, policies and practices should be implemented to ensure that distance education in Greece would be effectively carried out in the future in any situation, emergency or non-emergency. Regarding the communication problems, which resulted in difficulties in the interaction between the teachers and the students, the provision of internet access and devices to both the teachers and the students is of great significance. As any education policy should be based on the principles of equity and inclusion during a crisis (Bozkurt & Sharma, 2020; United Nations, 2020), the Ministry of Education should invest more in ensuring that all the stakeholders (i.e. teachers, students, schools) have access to ICT equipment and the Internet. To avoid accessibility issues, especially in very poor areas, a

suggested solution is for the government to "seek innovative options to help teachers provide good instruction even when internet access is not possible" (Stelitano et al., 2020, p.7). If emergency remote teaching becomes mandatory for both the students and the teachers, accessibility issues should be taken into consideration. By fostering communication and interaction, students' engagement could be enhanced and teachers would be able to provide more support (Jelińska & Paradowski, 2021).

Professional training regarding distance education should also be provided to all the teachers to minimize the knowledge gap, a solution also suggested in other countries (König et al., 2020). However, as suggested by the United Nations (2020):

> more important than training teachers in ICT skills, is ensuring that they have the assessment and pedagogical skills to meet students at their level and to implement the accelerated curricula and differentiated learning strategies likely to emerge in the return to school. (p.23)

Moreover, the findings in this research suggest that the formal ICTs qualifications and their training before the pandemic did not help the teachers to be confident in implementing effective online teaching during the lockdown. This means that a pedagogical transition is necessary which would be achieved via a change in the online culture of the teachers. Therefore, training courses should be offered with a focus on familiarizing teachers with their new teaching roles and with pedagogical practices more appropriate for the online educational context so that they can "redesign learning towards a constructivist approach" (Redmond, 2011, p. 1052). Finally, practices and policies which promote blended learning should be implemented after the crisis so that both teachers and students would develop positive attitudes towards distance learning. This could be achieved if the subject of ICTs taught at school is upgraded so that the students acquire the necessary online learning skills and change their online culture, as suggested by P15.

Furthermore, solutions suggested in other countries for similar problems might also be implemented in Greece. For example, the unclear governmental directions or the lack of central organization could have been dealt with by investing more in "equipping schools with a standardized online teaching/learning management system and online resources" (Zhang, 2020, p.12). Overall, the involvement of all the education stakeholders is necessary for the design and implementation of a "clear and consistent plan" within an "evaluated and monitored framework" "to ensure consistency, learning and achievement" (Vlachopoulos, 2020, p.17). For this plan to be created, research should be conducted after the schools open so that the necessary data are gathered to "diagnose and treat learning gaps that have emerged during the crisis" (Raluca et al., 2020, p.7).

Limitations of the Study and Further Research

As already mentioned, this is a qualitative small-scale case study with non-conclusive results. Even though it was shown that the findings are similar to other studies' results worldwide, they are not generalizable. Therefore, future quantitative research with more participants should be carried out to substantiate the present findings. Students' responses and their interaction could justify the significance of

the specific problems. Other issues could also be researched which are associated with the challenges teachers encountered such as their feelings due to the pandemic and how these feelings influence their teaching during emergency remote education. Finally, the teachers' views regarding the lack of control in the online classroom could be further investigated within the Greek educational context, as it seems that it has not been widely researched in the distance education literature.

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