

Adapting to an Online Learning Environment in the Midst of the Global Pandemic: Insights from a Private Higher Institution in Cyprus

Antonios Kafa¹ & Nikleia Eteokleous¹

Abstract

The pandemic crisis of COVID-19 affected millions of people around the globe and brought upheavals in their lives. In fact, the unprecedented appearance of the ‘invisible’ enemy has impacted the economy and businesses across the world, whilst the travel and tourism industry have been severely damaged. In addition, this global pandemic has raised significant challenges for the higher education sector, including in the context of Cyprus. In particular, academic staff in Cyprus, were brought into the spotlight and they were expected to adjust their educational practice with insufficient or minimum training and preparation. Based on the aforementioned, the main objective of this particular paper is to present and discuss the reactions and the operational measures that were implemented at Frederick University in order to address this crisis, together with the presentation of the challenges that occurred in this setting. In addition, since the emphasis was given on the academic staff, we will provide their reflections and perspectives, based on a small-scale study that was conducted, concerning the degree of effectiveness of the university measurers in dealing with this unexpected change. Overall, through this chapter, our intention is to reveal the crucial aspects of the important mechanisms for meeting the demands for online teaching in higher institutions, the enhancement of the capacities and capabilities of the instructors to deal with this change, and finally the challenges that occurred during this unprecedented change.

Keywords

higher education, pandemic crisis, emergency remote teaching, instructors, professional development training, university

¹ Frederick University, Educational Studies, Nicosia, Cyprus

Corresponding author: Antonios Kafa (Pre.ka@frederick.ac.cy)



1 Introduction

The global pandemic crisis of COVID-19 affected millions of people around the globe and brought upheavals in their lives. In fact, the unprecedented appearance of the ‘invisible’ enemy has impacted the economy and businesses across the world, whilst the travel and tourism industry have been severely damaged. Researchers (e. g., Shrivastava et al., 2013; Ansell & Boin, 2019) argued that modern societies around the world live in the eye of a “perfect storm” with issues related to the global financial crisis, global climate crisis, and global poverty crisis, all of which interact and affect all stakeholders since they are increasingly faced with “unknown unknowns”. Currently, the crisis of the COVID-19 pandemic has once again brought to the surface the concepts of crisis and uncertainty, affecting all sectors and societies of mankind. Especially in organizations, this pandemic brought upheavals and insecurity for the employees, financial problems, as well as management problems. Bartsch et al. (2021) argued that this particular crisis besides the health crisis led to an unprecedented economic and social crisis that hit organizations hard. In general, any potential crisis triggers a period of uncertainty since everything changes and the need to redesign and redefine processes and procedures is more urgent than ever. Based on that, crises are unpredictable and disrupt normal operations of the organization, while they require an immediate response (Fener & Cevik, 2015), and do not provide enough time to get prepared in advance (Bhaduri, 2019). Also, in relation to the organizational sector, Calogero and Yasin (2011) supported that when a crisis ceases to exist, it marks the organization by changing the operating level which affects everyone inside the organization. In order to do so, during a crisis specific measures and initiatives must be considered. Furthermore, this change affected education systems worldwide and disrupted the way in which students are educated around the world (Kafa & Pashiardis, 2020). In fact, about 1.5 billion learners at all educational levels were influenced by institutions decisions to lockdown in 191 countries due to the pandemic (UNESCO, 2020) and the overall educational practice was re-designed and dramatically altered (Harris, 2020). As a consequence, this global pandemic has raised significant challenges for the higher education sector worldwide, particularly the unexpected and urgent need for previously face-to-face university courses to be taught online (Rapanta et al., 2020). Therefore, during this crisis supporting education continuity in higher education institutes is deemed necessary.

Having said that, Cyprus has certainly been no exception to this. In fact, academic staff in Cyprus, were brought into the spotlight and they were expected to adjust their educational practice, from the conventional learning environment into this new distance/online learning environment called emergency remote teaching (Joshi et al., 2018; Rush et al., 2016; U.S. Department of Education, 1996), with insufficient and/or minimum training and preparation. Since 1980, technology was used for teaching and learning at distance in times where emergency remote teaching was employed (U.S. Department of Education, 1996). As Hodges et al. (2020) supported, emergency remote teaching is adapted when

external forces affect all levels of education and transform the conventional teaching mode of delivery to the distance learning mode of delivery. Due to the pandemic restrictions in our case, emergency remote teaching was implemented in order to continue the teaching and learning process in all educational levels. This sudden change could be also specified as a radical change and a rapid transition to education at distance, since it interrupts the normality of education, referring mostly to the conventional aspect of teaching and learning. In general, various natural (Joshi et al., 2018; Rush et al., 2016) and extreme violence crisis require the use of technology for the implementation of emergency remote teaching. Yet, the transition to this emergency remote teaching during the pandemic crisis revealed the inadequacy of various institutions, educators and students, since different conditions are needed in regard to the course design and delivery, technological infrastructure, etc.

In this particular chapter, and through the case of Frederick University (FredU), (a private university in Cyprus that offers undergraduate and graduate programs on two campuses) the reactions and the operational measures that were decided and implemented in order to address this crisis, together with the accompanied challenges, are presented and discussed. Overall, through this chapter, our intention is to reveal the crucial aspects of the important mechanisms for meeting the demands of emergency remote teaching and learning in online environments in higher education institutions, the enhancement of the capacities and capabilities of the instructors to deal with this change, and finally, the challenges that occurred during this unprecedented change. In order to present the following topic, the subsequent subchapters will present some of the current literature in the field of the online environment, set the stage of the private institution in Cyprus, referring to FredU and present the process of the adaptation of the emergency remote teaching and learning employed due to the pandemic crisis. Also, since the emphasis was given on the academic staff, we provide their reflections and perspectives, based on a small-scale study that was conducted, concerning the degree of effectiveness of the university measurers in dealing with this unexpected change. Finally, the discussion provides an overview of this particular topic together with its implications section.

2 Framing the Online Learning Environment in Educational Practice

Educational technology effectiveness depends on how well it helps teachers and students achieve the desired instructional goals as argued by Ross, Morrison and Lowther (2010). Specifically, e-learning effectiveness can be identified by 6 factors: instructor's performance, learners' attitudes, supportive issues, system quality, service quality and content quality (Ozkan & Koseler, 2009). Other studies reported students' attitudes and learners' satisfaction as parameters for the e-learning effectiveness (Liaw et al., 2006, p. 1072; Ozkan & Koseler, 2009). Additionally, interactive learning activities among students and between students and the instructor revealed to be an important element in improving

academic achievement and effectiveness of online teaching (Castaño-Muñoz et al., 2014; Means et al., 2013).

The potential, educational value, and possibilities of distance learning are highlighted by several elements such as: self-learning, learner resources and amount of information, inclusiveness, ease of access, the level of interaction and communication, previous online experience of both students and instructors, personal characteristics of students and instructors, as well as external factors (Arkoful & Abaidoo, 2014; Baber, 2020; Ghazi-Saidi et al., 2020; Wahab, 2020). Other factors of success related to faculty members are the following: lecturers' pedagogical knowledge, training, support and workload, the provision of course access and flexibility, development of instructional design skills (Helms, 2014). Students' preparation via pre-training programs for technological issues, orientation programs, online individual counselling, guidance and assistance (Giesbers et al. 2021), as well as e-mentoring and virtual community spaces are also considered to be positive contributors to the effectiveness of online and blended learning environment. At the university level, the policies and strategies adopted and employed are crucial. Specifically, collaborative leadership and '*properly resourced, achievable and sustainable*' action plans (Garrison & Vaughan, 2013, p. 25), in relation to the quality of IT infrastructure and services, the use of the available technology to its full potential is extremely important (Alsabawy et al., 2013).

3 Setting the Stage: The Case of a Private Higher Institution in Cyprus

Before introducing the higher institution to which this chapter is referred to, we briefly present the overall context of Cyprus, as well as how the COVID-19 pandemic crisis affected the educational system in Cyprus. To begin with, Cyprus is an island in the Eastern Mediterranean Sea that gained its independence and became an independent state in 1960. Since 2004, Cyprus has become a full member of the European Union. In general, the island of Cyprus is a small country, classified as a middle-income country, with a population of over one million (1.212,274) where the majority of the population are Greek-Cypriots.

Concerning the educational system in Cyprus, the Ministry of Education, Culture, Youth and Sports is responsible for the various educational levels in Cyprus (primary, secondary, higher). The highest authority comes from the minister in collaboration with various departments such as the Management, Planning, Registry, and Accounts Office in which they support the functioning of education at the three main educational levels: primary, secondary and higher which includes public and private universities, as well as public and private colleges or institutes (Pashiardis & Tsiakiros, 2015). The Ministry is responsible for the policymaking and administrative issues of the governance of education (especially

in the primary and secondary levels), as well as regulating and supervising all the institutions under its jurisdiction and is responsible for the implementation of educational laws and the preparation of new legislation (Pashiardis & Tsiakiros, 2015).

The COVID-19 pandemic hit the island on March 09, 2020, when the first two confirmed cases were announced. For Cyprus, this invisible threat was in fact a very uncommon and dramatic experience, which consequently had a negative impact on all citizens who eventually had to be locked up in their own spaces for several months throughout the year 2020–2021. The very next day, the Ministry of Education, Culture, Youth and Sports, for precautionary reasons decided to suspend the operation of school organizations for a number of days. Yet, due to the increase of the cases in the following weeks, the Ministry decided the closure of school organizations until further notice. During that time, a total lockdown was imposed by the local government. Also, the Ministry of Education, Culture, Youth and Sports recommended, in an abundance of caution, to suspend the operation of all higher institutions in Cyprus. Following, the guidelines of the Ministry, FredU decided to suspend operations from March 11, 2020, two days after the first cases were confirmed on the island.

FredU is a vibrant private university operating in Cyprus. It was established in 2007 as a university under the legislation of the higher education sector in Cyprus and specifically, after a decision by the Council of Ministers of the Republic of Cyprus on 12th September 2007. However, FredU as a higher institution has a long history of more than 50 years. In particular, before its establishment, it was known under the name of Frederick Institute of Technology offering various diplomas. Nowadays, FredU offers a large number of undergraduate and graduate programs in the areas of Science, Engineering, Business, Arts, Architecture, Media, Humanities, Health, and Education and operates in two campuses with over 4,000 students. The main campus is in Nicosia, the capital of Cyprus, and the other campus in Limassol, the second largest city. Overall, FredU has a strong focus on academic research, as one of the leading research organizations on the island, and it is recognized both nationally and internationally.

4 Initiatives and Challenges for Adapting to an Online Learning Environment

Based on the pandemic crisis that hit the globe, a number of challenges were observed in various organizations, including the educational and business sectors, with consequences for the organizations' basic beliefs and expectations (Pauchant & Douville, 1993). James, Wooten and Dushek (2011), argued that many academics and scholars considered the organizational/business crisis as a strategic matter that will lead any organization to a negative outcome, unless a number of corrective actions are taken. Based on this unprecedented crisis, FredU, took specific initiatives and promoted specific actions in order to adapt to this new era successfully. First and foremost, the University has been fully in-line with governmental and other authorities' regulations in order to respond effectively and responsibly to this particular crisis, referring both to the pedagogical aspect, which covers the level of quality education offered to students, and the protection of the health of both staff and students. As Calogero and Yasin (2011) argued, a crisis influences heavily on the organization's functioning and this kind of situation requires a fast-decision-making process. Therefore, during times of uncertainty effective decisions in order to respond to the crisis are crucial (Pasquini et al., 2019). Based on that reference, the University's Senate reacted to this crisis with various initiatives which included the adaptation of the new technologies for the efficient and effective execution of the final online examinations, as well as the development of alternative assessment methods with the use of technology. Of course, all these initiatives were in compliance with the guidelines of the Cyprus Agency of Quality Assurance and Accreditation in Higher Education (CYQAA).

Having said that, we are concentrating on how the university, following the closure of the campuses, adapted to the emergency remote teaching and learning environment along with the teaching staff support mechanisms. In general, based on this unexpected crisis, the university acted directly to support all its conventional programs into emergency remote teaching and learning within just three days, with the introduction of the "blended learning" pedagogical framework. As we mentioned earlier, the university offers distance online learning programs since 2013 and therefore the pedagogical and technical know-how and infrastructure to support this new online learning environment for the conventional programs were already available. Specifically, this knowledge has been accumulated over the last seven years through the fourteen distance learning programs that are offered at FredU. At the same time, gradually, the university technologically updated the classrooms and developed hybrid classrooms in both campuses (in Nicosia and Limassol) for bidirectional communication between students and the instructor in the class and those participating virtually. This initiative, was implemented as we moved from lockdown through to the gradual reopening of the universities and thus a blended/hybrid learning approach was followed.

5 Blended Learning @ Frederick University: The Philosophy of the Pedagogical Framework

FredU took advantage of the challenges and opportunities provided by the pandemic and besides infrastructure (hybrid classroom) it also developed a theoretical framework to guide and support the re-design of courses into a more blended/hybrid learning approach. FredU is at a stage where it requested its faculty members to see beyond the traditional approach and ‘*re-conceptualize what can be done in multiple delivery modes*’ (Goeman et al., 2018, p. 50).

The blended learning pedagogical framework (as it was named) developed, serve as the backbone to guide the re-design of our courses intended to be delivered through the blended learning approach. The proposed framework is based on research evidence and contemporary theoretical and practical approaches to blended learning (Stein & Graham, 2020; Conole, 2013; Hirumi et al., 2011; Kerres & De Witt, 2003; Montrieux et al., 2015; Skill & Young, 2002) in higher education and capitalizes on the expertise gained by FredU from its distance learning programs of study and the ‘Distance Learning Pedagogical Framework’ developed and implemented for the past seven years (Eteokleous & Neophytou, 2019; Eteokleous et al., 2013).

The philosophy that underlies the pedagogical framework of blended learning at FredU calls for various elements to be taken into consideration. The pedagogical framework developed includes the elements needed in order to design student-centred learning environments that allow students as learners to experience guided independent learning and permanent student activity, through constant interaction of instructor-student, student-student, student-others, materials or resources. The pedagogical framework encompasses processes where they allow the development of student-controlled meaningful learning communities (both in person and virtual) (Skill & Young, 2002) which is the key to learner engagement (Boelens et al., 2017; McGee & Reis, 2012; Park et al., 2011; Song et al., 2004). It intends to develop online and face-to-face learning spaces and individual/collaborative learning processes where students will take responsibility of their own learning and increase their self-perceived knowledge. Quality control and assurance mechanisms were developed in order to support, guide and advise the instructors. Finally, a series of professional development courses aiming to pedagogically and technologically support the instructors planned and implemented during the academic year of 2020–2021. The blended learning framework consists of the following 3 main parameters (see Figure 1 in appendix):

1. **Learning and Teaching Spaces:** Localization of teaching and learning: *online and face-to-face*. The framework allows for flexibility between online and face-to-face learning space.

2. **Teaching Components and Learning Activities:** The thoughtful mix of the following pillars (teaching components), better specify BL arrangements: *a) content and material delivery, b) participation and engagement, and c) assessment*. BL is expressed as a particular sequencing and proportion of online and face-to-face, synchronous or asynchronous learning activities such as: Read, watch and learn, Collaborate, Discuss, Investigate, Practice and Produce (see Figure 2 in appendix).
3. **Technological Tools:** Instructors are expected to select and integrate a mix of tools to deliver and scaffold learning activities. Strong and extensive use of the eLearn platform is required. Specifically, the instructors are encouraged to use build-in platform tools (i. e. zoom for teleconferencing sessions, discussion forums, chat rooms, wikis) as well as tools outside the platform (i. e. simulations, blogs, online collaborative documents, digital boards, interactive assessment tools). The technological tools are grouped in the following categories:
 - Communication tools
 - Collaboration, Interaction and Information Sharing tools
 - Content Development Authoring tools
 - Assessment and Feedback tools
 - Simulation, AR and VR tools

Therefore, all the theoretical courses were predominantly delivered online, and face-to-face communication has been restricted to laboratories and practicum (based on the pandemic situation). Yet, a particular challenge was the limited and in some cases non-existing experience of the instructors of the conventional programs of study in the field of the distance learning approach in designing, developing and delivering a course. Based on this fact, the university immediately began to formulate a particular action plan where the Distance Learning Committee (DLC) and the Open and Distance Learning Center (ODLC) played a leading role in guiding, steering, motivating and supporting all the teaching staff in various departments who had unexpectedly needed to employ emergency remote teaching and learning. In particular, two of the operational measures were: 1) the introduction of a professional development webinar series (during the months April–May 2020) entitled “Improving teaching in online times” to all the teaching staff from the university, with limited to non-existing experience in online teaching (instructors that teach in distance learning programs were also welcome to attend) and 2) the introduction of a coaching and mentoring scheme from experienced teaching staff who had already taught in the distance learning programs of our university and supported the teaching staff with limited/non-existing experience. Based on the aforementioned, we will now

present in a more detailed way the two operational measures for the support mechanisms of the teaching staff.

5.1 *A Professional Development Series*

As mentioned above, the pedagogical and technical know-how, and capacity for an on-line learning setting were available at FredU since various programs are offered via the distance learning mode. However, one particular impediment was the need for immediate support of the instructors, who taught in a traditional setting before being forced to immediately switch to emergency remote teaching and learning, implementing unknown online learning approaches and techniques. Based on that, the university introduced the aforementioned professional development webinar series (during the months April–May 2020), to all the instructors from five different schools and various departments, with limited to non-existing experience in online teaching (of course distance learning instructors were also welcome to attend). This particular training did not involve any technical aspects but the focus was given on practical and pedagogical points on how to improve teaching and engage in an exchange of ideas and best practices within this new online learning environment. The emergency remote teaching and learning was implemented via the learning management system, LMS_ Moodle, already in use for both the conventional and distance learning programs of study. Within Moodle, the ZOOM resource function (a software used for teleconferencing, telecommuting, distance education, and social relations) was activated. It was already in use for the distance learning programs of study. The Moodle-LMS and ZOOM were the two main tools immediately used to switch to emergency remote teaching. Given the experience and the extensive use of ZOOM in the distance learning programs of study, the technical parts which included issues related to license and accessibility were not an obstacle. However, a training framework for the teaching staff who would use this software and adjust their teaching mode in this new distance learning environment was an issue that had to be addressed.

Therefore, FredU addressed this challenge with an immediate response through the professional development series. During the months April and May 2020, instructors from five different schools and various departments, with no prior experience in online teaching, were invited to participate in these professional development series. Colleagues from the university with experience in the distance learning environment, as well as guest lectures were invited to deliver the online workshops. The professional development webinar series covered topics such as: best practices for online teaching delivery, online classroom management, student perspectives on online teaching and learning and how to support them, pedagogical design for online teaching, the use of simulations and learning scenarios, topics related to quality assurance in online teaching, as well as topics related to the reflection of online teaching and learning. In particular, Table 1 presents the topics and thematic areas that were covered by the training series.

Table 1: Topics of the training series “Improving teaching in online times”

1.	Best practices for online teaching delivery & engaging students for teleconferencing teaching – April 2020
2.	Online classroom management – April 2020
3.	Student perspectives about online teaching and learning: what they might be thinking and how to support them – May 2020
4.	Pedagogical design for online teaching: developing the appropriate educational material – May 2020
5.	The use of simulations and learning scenarios in the teaching and learning process – May 2020
6.	Quality Assurance and the Development of Community of Inquiry in Online Teaching and Learning – May 2020
7.	How to reflect on online teaching and learning – May 2020

In particular, the 1st training entitled “Best practices for online teaching delivery & engaging students for teleconferencing teaching”, included important tips for starters, the interactive perspective so that students’ engagement and attention in this new online setting could be increased, some “virtual” ice-breaking techniques and in general various important features of the ZOOM digital environment. The 2nd training entitled “Online classroom management” covered the important aspects of managing the ZOOM environment as the new digital classroom and included topics such as control screen sharing, safety locking the online environment, lecture course, the virtual background, as well as the reaction and communication tools that instructors could use in their interaction with students. The 3rd training session covered the topic of “Student perspectives about online teaching and learning: what they might be thinking and how to support them”. Based on the available research data in literature, as well as based on a small research study conducted with students of the university, this training series presented information on how students were adapting to courses that had transitioned from in-person to remote delivery and overall to have a sense of what kind of obstacles and expectations students have from the implementation of emergency remote teaching. The 4th training entitled “Pedagogical design for online teaching: developing the appropriate educational material”, covered the important aspect of the transition of conventional teaching materials to an online environment. In particular, this training series gave an overview to the teaching staff on how to adjust and use their existing educational material into this new online teaching approach. Following, the 5th training entitled “The use of simulations and learning scenarios in the teaching and learning process”, in which all teaching staff were familiarized with the use of simulation software, learning scenarios and role playing as part of their teaching process in this new online learning environment. Various simulation software and applications were presented and explained. The 6th training series entitled “Quality Assurance and the Development of Community of Inquiry in Online Teaching and

Learning” discussed and explained the importance of quality assurance mechanisms and provided tips on how they can be implemented. Additionally, it presented and discussed the development of community of inquiry via blended and online learning environments covered the framework for optimizing learning experiences and the reflections in this new online learning environment. Finally, the 7th training entitled “How to reflect in online teaching and learning” presented and discussed the framework for optimizing learning experiences and the reflections in this new online learning environment. The training sessions were scheduled every Wednesday at 17:00 and their duration was one hour. In general, it is worth mentioning that instructors had open access to this particular training series on the University’s platform under the course name “Online Technologies and Methodologies for Faculty” both by reading the slides and watching the recorded videos of the seminars.

5.2 A Coaching and Mentoring Scheme

Beyond the professional development training series, FredU acknowledged the important aspect of collaboration and communication between experienced teaching staff in an online environment and teaching staff with limited or non-existing experience. In fact, an effective communication and collaboration system is a priority for all during a time of crisis (Ansell & Boin, 2019). Additionally, Castrogiovanni and colleagues (2011) highlighted the importance of maintaining close channels of communication along with personal relationships for dealing with crisis in the working environment. Therefore, a coaching and mentoring program was introduced for the online teaching delivery in an effort to continually improve the educational services offered throughout this pandemic period. As mentioned before, a particular challenge was the limited/non-existing experience of the teaching staff in the field of distance learning. Thus, beyond the professional development training series, in an effort to provide the best possible educational experience during this new online learning process, the university introduced a mentoring scheme for teaching colleagues.

In particular, ten colleagues with extensive and proven experience in teaching and coordinating distance learning programs had been assigned by the university as mentors to specific academic departments who offered their courses in a conventional setting including the School of Health Sciences, the School of Art, the Civil & Mechanical Engineering Department, the Law Department, the Psychology & Social Sciences Department, the Education Department & Sports Sciences, the Maritime Department, the Electrical Department, the Architecture Department and the Business Department.

This coaching and mentoring program was designed to help and guide colleagues through their new online teaching experience. Specifically, this scheme aimed to provide guidance on academic matters and best practices on educational delivery through e-learning tools, as well as specific tips that have been shown to enhance and improve the teaching and

learning process based on the experienced colleagues working in the distance learning framework. Therefore, this particular initiative covered mostly the online pedagogical support aspect, rather than the technical or administrative support, in which both the school secretariat as well as the computing services were supporting and assisting all the teaching staff.

The provision of this particular scheme included the setup of possible and needed training sessions between the mentor and the colleagues from the department, the establishment of a forum for Q&A, as well as the definition of certain hours within the week that the mentor will be available for feedback and overall, any type of communication for general guidance and assistance. In general, this particular coaching and mentoring scheme did not have any defined or specific framework. On the contrary, the heads of the departments, as well as teaching staff for the department were invited to co-communicate and discuss with the respective mentors the best way of delivering the mentoring scheme in order to have the support and assistance needed according to their needs and specific characteristics. Finally, it is worth mentioning that all ten mentors volunteered to offer their services and experiences in the online environment at the request of establishing the mentoring program by the university.

6 Reflections from the Case Study

Following, in order to reflect on the adaptation of emergency remote teaching in our university, we conducted a small-scale study. Its scope was to gain an initial understanding of the reflections and perspectives of the teaching staff that took part in the aforementioned professional development series. Attending the professional development series was not mandatory and any member of the teaching or administrative staff of the university could participate. At the same time, this study provided information on the effectiveness of the university measurers employed in order to deal with this unexpected change. In particular, the following research questions guided this study:

1. To what extent the online professional development series was important to the teaching staff?
2. To what extent did the teaching staff utilize the practices and tools from the professional development series in their courses?
3. What are the main challenges that arise from the online teaching environment and what other kinds of professional development are needed?

This predominantly quantitative assessment took place at the end of the spring academic semester 2020 and was based on a questionnaire format. The survey was developed with

closed-ended and open-ended questions and it was administered electronically to all the teaching staff, who had no experience or limited experience in online teaching, and who took part in the professional development series. The format of the questionnaires consisted of three sections. Each section covered one of the three research questions. The sample of the study was comprised of 24 teaching staff that took part in the professional development series. On average, 55 colleagues attended each of the 7 sessions of the professional development series.

With reference, to the 1st research question and the importance of the online professional development series that was implemented in the university, 87.5% of the participants supported that they had acquired professional online experience during the pandemic crisis due to the online professional development series. Moreover, 60% of the participants argued that they had advanced their online teaching experience and acquired skills based on the pandemic situation. In general, as it is shown in Table 2, all of the participants (100%) mentioned that the “best practices for online teaching delivery and engaging students for teleconferencing teaching” seminar was the most important one. Also, 86% of the participants supported that the “online classroom management” and the “pedagogical design for online teaching: developing the appropriate educational material” seminars were also important. Furthermore, to a lesser extent, 62%, the participants supported the importance of the following seminars: “student perspectives about online teaching and learning: what they might be thinking and how to support them”; “the use of simulations and learning scenarios in the teaching and learning process”; “quality assurance and the development of community of inquiry in online teaching”. Finally, concerning the final webinar on “how to reflect on online and teaching learning”, 57% found it helpful and interesting.

Table 2: Teaching staff responses to the online professional development series

Professional development series	Percentage (%)
Best practices for online teaching delivery & engaging students for teleconferencing teaching	100%
Online classroom management	86%
Student perspectives about online teaching and learning: what they might be thinking and how to support them; the use of simulations and learning scenarios in the teaching and learning process; quality assurance and the development of community of inquiry in online teaching	62%
How to reflect on online and teaching learning	57%

Concerning the 2nd research question as to what extent the teaching staff utilized the practices and tools from the professional development series in their courses, referring mostly to the tools used within the ZOOM environment, almost all of the participants argued about the importance of the chat rooms (97%), break out rooms (95%) and the polling feature (90%). To a lesser degree, the participants mentioned that they have used the problem solving/learning scenarios practices (60%) and the interactive games practice (40%), whilst none of the participants (0%) used the simulation technology practice as a result of the limited experience and training, as well as limited access to simulator software etc.

Finally, concerning the 3rd research question, no particular challenges were observed concerning the online teaching environment (95%). A small number of participants (5%) mentioned that too much information was given to them in combination with the general fatigue due to the particular difficulties of the pandemic period. Yet, in regards to what kind of professional development is needed, participants mentioned that further expertise for all ZOOM capabilities for the conventional study programs is required, as well as more information and support in order to further encourage student interaction. In addition, the teaching staff argued about the importance of further expertise on specialized resources/online interaction for various courses, the training on pro versions of software on simulators/simulation technology/environment, the training for further student motivation during ZOOM and finally, additional training for the creation of interactive videos.

7 Discussion

Undoubtedly, there is an increasing degree of reference in literature, about the concepts of crisis and uncertainty in educational organizations (e. g., Azorin, 2020; Rapanta et al., 2020; Harris, 2020; Harris & Jones, 2020) due to the unprecedented change derived from the global pandemic that affected the various educational systems across the globe. In conjunction with the above, the aspects of online teaching and learning have also become prominent. Even if, in the past two decades, online learning has been used in various educational institutions around the world, most colleges and universities, and especially school organizations did not use this educational mode and thus the limited involvement of the teaching staff in an e-learning process was observed (Mahyoob, 2020). Yet, this global pandemic or this “supernova” force, as Azorin (2020) described it, triggered a new era in the various educational contexts, which included higher institutions that were not prepared for this new education landscape.

Based on that assumption, in order to handle the pandemic crisis in educational organizations, the decision-making process was considered a fundamental aspect (Boin & Lagadec, 2000). In particular, any legitimate and effective decisions made through this process

could address any crisis in the short and long run (Ansell & Boin, 2019). Specifically, the aspects of *sense-making* (collection, analysis, and dissemination of information about the unfolding crisis), *coordinating* (motivating staff to work together and perform their tasks in an effective and legitimate way, based on the planned actions and strategic decisions), *meaning-making* (explaining to all staff and people involved what is going on, and offering information about the steps forward together with training and support), could actually limit the impact of a crisis (Ansell & Boin, 2019).

FredU, took concrete decisions in order to address this particular crisis. In fact, these decisions regarding the new distance learning concept demonstrate the university's immediacy in the pandemic crisis, as well as providing support and a smooth transition from a traditional setting to distance learning for both teaching staff and students. Based at the small-scale study that was conducted in our university, the results indicated the importance of the professional development training series for the teaching staff in order to address the challenges caused by this new distance learning environment. In general, most of the tools and practices that were introduced to the training, as part of the "classroom" management, were used throughout the online teaching and were deemed useful and important (e. g., polling, chat rooms, break out rooms). Also, it is worth mentioning that the coaching and mentoring schemes provided substantial support to all the unexperienced teaching staff and revealed the professional and digital capacity of experienced teaching staff who acted as mentors.

Yet, the results from the aforementioned small-scale study pointed out some further steps that needed to be addressed. In particular, the teaching staff described the need to further enhance their knowledge of using simulations and learning scenarios in their learning process, since they had limited experience and training, as well as limited access to simulator software. Moreover, the teaching staff acknowledged the important aspect of the interactive videos within their online teaching aspect and asked about further training. Finally, the teaching staff acknowledged the need for further training on how to motivate students, as well as how to promote student interaction during the online classes.

In general, it is important to recognize that even in times of uncertainty and crisis, and in particular in a situation where the lives of people are at stake, an interesting and well-prepared teaching and learning process should reduce the anxiety levels and stress of the people involved in the process (Dhawan, 2020). In addition, during times of uncertainty, such as that of the global pandemic, it could enable any organization to be more creative and provide an opportunity to change itself into a better one (Calogero & Yasin, 2011). FredU, demonstrated that through a closed collaboration among the teaching and administrative staff, as well as through an immediate respond to this matter, managed to provide proper support, as well as pedagogical and technical competences to successfully employ emergency remote teaching and learning (Dhawan, 2020). Also, strong communication was established, even through the online meetings. As Castrogiovanni and col-

leagues (2011) mentioned, a clear and effective communication system is a priority for all during times of uncertainty, along with personal relationships that could act as the basis for the creation of an appropriate working environment, and that was the case of FredU. As always, each initiative, decision and action was driven by the directions and guidelines defined by the Cyprus Agency of Quality Assurance and Accreditation in Higher Education (CYQAA) and the directions provided by the government and the Ministry of Health. Overall, FredU's commitment at that time was to ensure that all students followed a well-structured model learning environment that included the use of state-of-the-art technologies and pedagogical practices within an online environment.

Concerning the implications that have been raised based on the aforementioned, it is important in each case (in any educational organization or any organization in general) to develop a particular professional development scheme based on the needs in order to enhance the capacities and capabilities of the teaching staff. For instance, in a study at the faculty of a university in Spain, Torres Martin and colleagues (2021) asked students' feedback regarding the pedagogical model adopted in the virtual learning environment during the pandemic crisis. The results revealed that the tutoring functions, tasks and beliefs of the teaching staff in e-learning were not satisfactory (Torres Martin et al., 2021). From that, we can argue that a lack of professional support affected teachers' ability to interact in this new virtual learning environment.

Furthermore, additional technological capacity (use of simulations, interactive videos, etc.) for higher teaching staff is needed together with access to reliable and sufficient digital learning resources in the form of open online courses, learning tools, e-books, e-notes and so on. In addition, it is important to broaden the digital capacity and support of teaching staff through training and seminars by engaging governmental and private stakeholders with expertise in digital competences (e. g., private companies, governmental bodies). Finally, additional research studies on higher teaching staff to assess the acceptance and needs of teaching conventional courses to an online/distance learning environment are needed. Based on these findings, we can have a holistic view of the current situation of the online learning process, not only in the higher education sector, but also in primary and secondary education too.

8 Conclusion

Professional development has been revealed to be an extremely important aspect in further promoting and advancing the processes and procedures in any organization. In order to keep up with the needs and demands of a globalized, rapidly changing, highly demanding interconnected world educators should be provided with those opportunities that help them advance and develop their knowledge, skills and competencies. The fact that FredU managed to address the challenges revealed due to the pandemic, calls for an action plan towards continuous professional development training for the academic as well as the administrative staff. The educational systems are more likely not to return to the conventional mode of delivery as we experienced so far (Chandasiri, 2020; Dubey & Pandey, 2020; El Firdoussi et al., 2020). It seems that distance education and specifically blended learning, open, flexible and personalized learning will dominate the education sector in the upcoming years. Therefore, educators in all educational levels need to realize the educational value, benefits and advantages of open, hybrid and flexible learning environments, as well as that there is a distinction and that there are several differences between emergency remote teaching and distance learning. Consequently, they need to develop those skills that will allow them to appropriately design and develop learning environments aligned to the requirements of the new trends: distance education, blended learning, open, flexible and personalized learning. It is also important to take advantage of the experiences and knowledge gained due to the pandemic in order for instructors to advance their teaching and learning practices by employing distance learning practices into conventional teaching and learning, thus moving towards the development of more hybrid, flexible and open learning environments.

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Appendix

Learning and Teaching Spaces	Teaching and Learning components	Types of Learning Activities	Technological tools
Face to Face	Content and Material Delivery	Read, watch, listen, acquire	Communication tools
	Participation and Engagement	Collaborate	Collaboration, interaction, and information sharing tools
Online	Assessment	Discuss	Content development authoring tools
		Investigate	
		Practice	Feedback, Reflection & Assessment tools
		Produce	
Assess	Simulation, AR and VR tools		

Figure 1: Blended Learning Pedagogical Framework Parameters

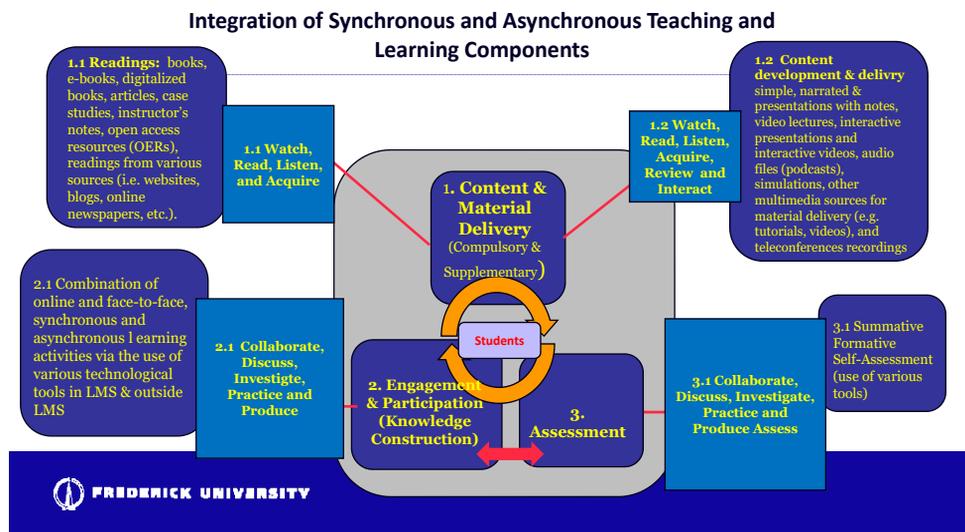


Figure 2: Teaching and Learning Components of Blended Learning Pedagogical Framework