DISTANCE TEACHER TRAINING DURING THE FIRST COVID PANDEMIC BY THE UNIVERSITY OF CRETE ELEARNINGLAB

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Abstract

The closing of schools at the beginning of spring 2020, because of the Corona Virus pandemic, featured the need for School Distance Education (SDE). Nevertheless, teachers did not have previous experience in SDE and as a result, they were in need of support in this urgent situation. The Laboratory for Advanced Teaching Technologies for Lifelong Learning and Distance Education (e-Learning Lab) of the University of Crete, attempted to contribute with its own means to the support of teachers who struggled to respond to the challenges of distance teaching resulting from the suspension of schools. Within the above framework, fast track distance seminars were designed and implemented, aiming at the support of teachers on pedagogical issues of Distance Education. During the period from 19 March to 29 April 2020, 20 distance training seminars were conducted, in which more than 40,000 teachers of primary and secondary education from around Greece participated. The overall presentation and assessment of the training actions showed not only the enormous interest of the teaching community but also the need for such training actions with particular emphasis on the principles and the methodology of SDE, on synchronous and asynchronous learning environment as well as the designing or planning of teaching scenarios based on the pedagogical approaches compatible with Distance Learning.

Introduction

Supporting the teachers with key issues regarding Distance Education became a major priority during the first lockdown, as till then teachers had no previous experience on School Distance Education. The Department of Primary Education of the University of Crete and most specifically e-Learning Lab, responding to the need for teacher support, designed and implemented fast-paced, free distance learning programs for primary and secondary education teachers.

The purpose of this paper is on the one hand to summarize the training activities that took place in the first period of the ban / Lockdown in the direction of introductory training of teachers on issues related to School Distance Education and on the other hand to investigate teachers' attitudes regarding participation in training.

The structure of the paper is as follows: In the first section, a first approach is attempted regarding the issues of the implementation of the School Distance Education in an emergency situation, such as Covid-19. The second section summarizes the contribution of the University of Crete and the e-Learning Lab, in the support / training of teachers in introductory issues related to School Distance Education focusing on the pedagogical dimension of the whole project. In the third section, a first attempt is made to make a comprehensive assessment of the training activities during the first period of the ban / Lockdown (March–April 2020). The paper is completed with the conclusions section.

School Distance Education in Periods of Emergency (Pandemic, Covid-19)

The term “School Distance Education” refers to the provision of education for primary and secondary education, which is provided remotely, is addressed to school-age individuals and is distinguished into autonomous and complementary (Vergou, Koutsoumpa, & Mouzakis, 2016).

During the first period of the Covid-19 pandemic, 80% of the global student population was affected by restrictive measures in 138 countries (Chang & Yano, 2020), the impact of which has not yet been studied (Flores & Gago, 2020). The need to address the negative impact of the suspension of the educational process pushed the shift to distance learning not as an option but as a coercive de facto enforcement (Toquero, 2020).

Therefore, emphasis in this first period of the pandemic was placed on (Anastasiades, 2020):

- ensuring access to Panhellenic School Network services, technological tools and infrastructure;
- reconnection of students in an emergency with classmates and teachers in an educational environment of technological mediation.

The response of the teaching community exceeded all expectations as it managed to significantly restore a first contact with the students, despite the technological problems and mainly the fact that teachers lacked the training. Obviously, the indiscriminate transfer of the philosophy of Face-To-Face Teaching methods and techniques into purely technological / technocentric terms in Distance Education Environments created risks of considering distance education as a problematic choice.

The absence of the minimum pedagogical conditions for the basic implementation of the School Distance Education was more than obvious. It was therefore necessary to try to support teachers on the basis of pedagogical approaches based on the fundamental principles of distance education, such as the interaction between learners, learners with teachers and learners with educational materials (Moore, 1989), practice communities and the three dimensions of the Exploration community model (Social, Teaching and Cognitive Presence) (Garrison, Anderson, & Archer, 2001), for the design and implementation of distance learning school activities with an emphasis on social interaction.

Case Study Description

The e-Learning Lab of the Department of Primary Education of the University of Crete, responding to the need to support Primary and Secondary Education teachers in their efforts to implement introductory activities of distance education with their students, in the period of March – April 2020, designed and implemented fast-paced seminars with the method of distance education.

Objective

The objective of the training actions is divided into 3 Thematic Units:

1. Fundamental principles of Distance Education: Basic Theories, differences between Distance Education and in person teaching, the importance of educational material, Social dimension, etc.
2. The Pedagogical utilization of ICT in a School distance education environment (synchronous, asynchronous environments and blended Learning environments).
3. Design of Educational material: introductory activities for the critical utilization of the existing material with the methodology of Distance Education / Development of scenarios of teaching intervention based on the methodology of Distance Education.

Target group

Primary and secondary school teachers.

Implementation Methodology

Each training seminar lasted 9 hours and was structured on two levels:

A. Synchronous School Distance Education (3 hours): Each training seminar provides one (1) training meeting, in which interested parties could participate:

- via video conference for a limited number of participants (150);
- via real time streaming (Live Streaming) for an unlimited number of participants.

For the most effective coverage of the needs of practice and the thorough support of the trainees, the solution of the two tutors was chosen. The first tutor focused on the

synchronous e-learning environment (teleconferencing), presented the activities and interacted with the participants in the teleconference, while the second one focused on social networks and interacted with the users who watched the live broadcast of the seminar. He received their questions and transferred them to the video conference room, giving answers via chat while helping as well to coordinate the training activity.

B. Synchronous Distance Education (3 hours): In each training seminar

The seminars were complemented with interactive educational material, specially designed with the method of distance education, which the trainees had the opportunity to study asynchronously in space and time of their choice, aiming at their own support. Finally, in the context of the training, the trainees were asked to do an optional task related to the creation of a teaching scenario using the methodology of distance education, so as to establish a direct connection between theory and practice in the context of sharing good practices.

Implementation of Training Seminars

In the context of the above actions in the period of March – April 2020 were carried out a total of:

- 20 Teleconferences with the participation of 1560 trainees,
- 6 Live Streaming Sessions with 15,000 participants in the “main hall” and another 25,000 from notifications from a total of 175,000 unique viewers.

Finally, the website with the educational material (www.edivea.org) was visited by over 60,000 unique visitors.

Research methodology

Purpose

The purpose of this research is to explore the views of trainee-teachers regarding their impressions of their participation in this training program.

Research Questions

1. How satisfied are the participants with their participation in the Training Seminar in terms of trainers?
2. How satisfied are the participants with the technological environment of the teleconferencing / Live Streaming (quality of audio, video, chat, etc.)?
3. How satisfied are the participants with the training material?
4. How satisfied are the participants with the possibility of utilizing the new knowledge in their educational work?

Methodological Framework

The survey was conducted in March and April 2020. It is an action survey that was synchronous, field-based and quantitative. A questionnaire was used as a means of data collection, which included closed-ended questions.

Sample

The sample of the research is the 4239 teachers of different specialties.

Presentation of Results

Table 10: Participants via Teleconferencing/ Livestreaming

	Participants via Live Streaming		Participants via Teleconferencing		Total	
	N	percentage %	n	percentage %	n	percentage %
Male	609	21.6	242	17	851	20.1
Female	2209	78.4	1179	83	3388	79.9
Total	2818	100	1421	100	4239	100

Table 2: Degree of Satisfaction from the Training Program of participants through Teleconferencing

How satisfied are you with your participation in the Training Seminar regarding	Participants via Teleconferencing												
	Low level of ICT literacy			Medium Level of ICT literacy			High Level of ICT literacy			Total			
	n	M.O	S.D.	N	M.O	S.D.	N	M.O	S.D.	N	M.O	S.D.	sig
a. the trainers	90	4.4	0.761	808	4.33	0.781	513	4.26	0.85	1412	4.31	0.805	0.151
b. the technological environment of Telecoferencing/Live Streaming	90	4.07	0.872	808	3.96	0.94	513	4.02	0.937	1412	3.98	0.934	0.36
c. the training material	90	3.81	0.959	803	3.82	1.012	512	3.83	1.066	1406	3.82	1.028	0.987
d. the possibility of utilizing new knowledge in your educational work	90	3.88	0.934	803	3.96	0.952	512	3.94	0.987	1406	3.94	0.963	0.757

According to the results of the research, the participants in the Training Seminar via Teleconferencing stated that they were quite satisfied (4.31) with the trainers. In relation to technological environment of Teleconferencing, the participants were moderate to quite satisfied (3.98). Also, the participants were moderate to quite satisfied (3.82) with the training material and the possibility of utilizing knew knowledge in their educational work.

Table 3: Degree of Satisfaction from the Training Program of participants through Livestreaming

How satisfied are you with your participation in the Training Seminar regarding	Participants via Livestreaming												
	Low level of ICT literacy		Medium Level of ICT literacy			High Level of ICT literacy			Total				
	n	M.O	S.D.	N	M.O	S.D.	N	M.O	S.D.	N	M.O	S.D.	sig
a. the trainers	133	4.18	0.869	1556	4.34	0.763	1128	4.46	0.720	2817	4.38	0.755	0.000
b. the technological environment of Teleconferencing/Live Streaming	133	3.63	1.041	1556	3.65	0.975	1128	3.82	0.982	2817	3.71	0.984	0.000
c. the training material	133	3.78	1.054	1556	4.06	0.945	1128	4.19	0.922	2817	4.10	0.946	0.000
d. the possibility of utilizing new knowledge in your educational work	133	3.29	1.077	1556	3.77	1.016	1128	4.07	0.979	2817	3.86	1.023	0.000

According to the results of the research, the participants in the Training Seminar stated that they were quite satisfied (4.38) with the trainers. In particular, there was a slight variation in the already large satisfaction depending on the level of ICT literacy: participants with very low ICT literacy, appeared quite satisfied (4.18), participants with a moderate level of ICT literacy, felt quite satisfied (4.34) and participants with a high level of ICT literacy, felt quite satisfied (4.46). The difference of the GPA is considered statistically significant ($p = 0.000$). In relation to the technological environment of Live Streaming, the participants expressed their satisfaction (3.71). In particular, a slight variation was observed depending on the level of ICT literacy, where moderate to very satisfied (3.63) appeared the trainees with a low level of ICT literacy, as well as the trainees / students with a moderate level of ICT use and trainees with a high level of knowledge of ICT use, felt moderate to very satisfied (3.65 and 3.82 respectively). The difference of the GPA is considered statistically significant ($p = 0.000$). Also, the participants were quite satisfied (4.10) with the training material. In particular, there was a slight variation in the already large satisfaction (3.78), participants with a moderate level of ICT literacy, felt quite satisfied (4.06) and participants with a high level of ICT literacy, felt quite satisfied (4.19). The difference of the GPA is considered statistically significant ($p = 0.000$). Lastly, the trainees felt moderate to quite satisfied (3.86) with the possibility of utilizing new knowledge in their educational work. In particular, a slight variation was observed depending on the level of ICT literacy, where moderate (3.29) appeared the trainees with a low level of ICT literacy, the trainees / students with a moderate level of ICT use were moderate to quite satisfied (3.77) and the trainees with a high level of knowledge of ICT use, felt quite satisfied (4.07). The difference of the GPA is considered statistically significant ($p = 0.000$).

Conclusions

In conclusion, the participants in the Training Seminar via Teleconferencing were quite satisfied with the trainers. In relation to technological environment of Teleconferencing, the participants were moderate to quite satisfied. Also, the participants were moderate to quite satisfied with the training material and the possibility of utilizing new knowledge in their educational work. On the other hand, the participants in the Training Seminar via Livestreaming were quite satisfied with the trainers. In relation to the technological environment of Live Streaming, the participants expressed their satisfaction. Also, the participants were quite satisfied with the training material.

The hasty introduction of Distance Education in emergency conditions, has highlighted readiness problems not only in central planning but also in the school units. According to recent research, the training of prospective teachers often lags behind the preparation for distance learning (Debruler, Denton, McKay, & Sicilia, 2020).

E-Learning Lab designed and implemented 20 fast-paced seminars from March 19 to April 29, 2020, through the teleconferencing platform of Webex Meetings, while they were also broadcast live (live streaming) on the page of the University of Crete | e-Learning Lab and in social networking media (Facebook). Emphasis was placed on the principles and methodology of Distance Education, the environments of synchronous and asynchronous DE, as well as the design or formulation of teaching scenarios based on pedagogical approaches compatible with DE in order to support teachers.

The satisfaction of 40,000 teachers of all levels for the whole training process highlighted the importance of the pedagogical approach in the design and implementation of the seminars which was based on the practical training of the trainees in both synchronous and asynchronous distance learning environments.

A key role in the design and implementation of these seminars was played by the experience accumulated by:

- the distance training of teachers within the Major Training Program of the Pedagogical Institute (Anastasiades, 2012; Anastasiades et al., 2011) and the training of expatriate teachers within the Expatriate Education Program of the University of Crete (Anastasiades, 2007; 2012; Damanakis & Anastasiades, 2005);
- conducting distance learning programs for teachers;
- distance education through the ODYSSEUS program, which is the first systematic effort to design and implement an integrated complementary school environment with the use of ICT in Greece through the pedagogical utilization of Interactive Teleconferencing in Primary schools of Cyprus during the period 2000–2003

(Anastasiades, 2003) and Greece during the period 2004-2020 (Anastasiades, 2017; Anastasiades, 2003; 2009).

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