Teachers' Professional Development and E-Learning

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Abstract

Teachers' professional development is a process in which teachers constantly transform their practice through their participation in training and educational programs, among other practices. This process is significant, since teachers have to face numerous challenges, due to the fact that education is a dynamic process. The advances in technology have enabled teachers' professional development through e-learning, which is supported by various studies to be an effective means. The aim of this paper is to examine the importance and usefulness of e-learning. However, teaching students with special learning needs is the first major area in which teachers identify their educational needs, followed by teaching in a multicultural setting and student counselling. In addition, EFL teachers acknowledge, understand and accept the important role of e-learning in facilitating, supporting and encouraging their professional development. Moreover, the access to resources of e-learning, the existence of skilled teachers' educators and technical support, and the evaluation of the program were found to facilitate their participation in an e-learning training program.

Keywords: Professional development; E-learning; EFL teachers.

1. Introduction

1.1. Statement of the Problem

E-learning uses new multimedia technologies and the Internet to facilitate the access of students and teachers to sources of information and services, and the exchange of information and cooperation at a distance (Jethro *et al.*, 2012). E-learning can occur either through synchronous tools that takes place in real time or via asynchronous technology, where the lesson takes place at a time and place chosen by the student and the teacher, without their physical presence (Moore *et al.*, 2011; Murphy *et al.*, 2011). Based on the characteristics of e-learning, which is time- and place-independent, it is argued that it is an important and useful tool in the professional development of the teacher (Kangai and Bukaliya, 2011; Meletiou-Mavrotheris and Paparistodemou, 2010; Perraton, 2010; Vrasidas and Glass, 2007). In fact, e-learning allows individuals or communities, such as teachers' communities, to interact with each other, and have access to information from anywhere and at any given time.

Various studies have been carried out examining the perceptions of teachers about their continuous professional development and some of them examine some aspects of an e-learning program design, such as the factors that hinder teachers to participate in such a program, or the institutions that take part in the design of the program (e.g.(Chong *et al.*, 2011; Meletiou-Mavrotheris and Paparistodemou, 2010; Perraton, 2010; Saar *et al.*, 2011; Thompson *et al.*, 2013)). However, there is not a complete study in the Greek literature about how e-learning can be a crucial motivator and facilitator factor in teachers' professional development. Indeed, studying the international literature regarding the continuous professional development of teachers through e-learning, we can identify the following three major issues.

The first is the need for the ongoing professional development of teachers. It is supported, that e-learning places emphasis on the continuous improvement of teachers' knowledge and skills, which may result in improvements in the curriculum, in their instruction methods, in the introduction of innovations in the school unit, the creation of school culture, the enhancement of teacher's career, and the design of their professional identity (Chong *et al.*, 2011; Komba *et al.*, 2013; OECD, 2014; Tateo, 2012; Thompson *et al.*, 2013). The second is the role of e-learning in enhancing and facilitating teachers' professional development. It is supported that e-learning can take advantage of the synchronous and asynchronous learning platforms, in order to allow the teachers to take part in education programs, at any given time and from anywhere. Moreover, ICT tools encourage the cooperation of teachers, in large teacher communities, allowing the exchange of information, which may result in the improvement of education methods (Kangai and Bukaliya, 2011; Meletiou-Mavrotheris and Paparistodemou, 2010; Perraton, 2010). The third refers to all those factors that have an impact on teachers' professional development. These characteristics primarily concern the characteristics of adult participators and secondly all those factors that encourage or hinder them from taking part in an educational program via ICTs, such as the cost of the program, their skills and knowledge in using

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ICTs, the school culture, and the support from school leadership (Balkar, 2015; Caena, 2011; Larson and Milana, 2006; Saar *et al.*, 2011).

Teachers' professional development can be achieved through their participation in training and educational programs. Thus, these programs should take into account the educational needs of teachers, as well as their characteristics as adult educators. ICTs play an important role in facilitating and supporting teachers' professional development (Vrasidas and Glass, 2007). However, in some studies (e.g. (Silva and Herdeiro, 2014)) it was indicated that perhaps teachers may not be so positive towards their participation in programs related to their professional development, whereas in others (e.g. (Kangai and Bukaliya, 2011)) it was found that teachers were positive towards using e-learning for their professional development. Thus, there is a controversy regarding this issue in the international bibliography.

1.2. Aim and Research Questions

The purpose is to examine the importance and usefulness of e-learning in the professional development of teachers in EFL serving in various school types (public, private, schools and as private tutors). More precisely, the present study has the following objectives:

a) To examine the need for the ongoing professional development of teachers. It is of great interest to examine the importance of continuous development of EFL teachers, especially in Greece, a country where there are major reforms in the education sector during the last years, affecting teachers' performance. This is even more interesting and important, since this study tries to include teachers' opinions from various school types, with regard to the following: a) their educational needs and b) the level of the support they have from the school and the state in the context of their professional development.

b) To examine the role of e-learning in enhancing and facilitating teachers' professional development. The interest lies on the fact that the opinions and perceptions of EFL teachers in Greece are not taken into account, since public dialogue is scarce, and especially taking into account the opinions of all EFL teachers, irrelevant of their school type and their employment status. Thus, through this study these teachers have the opportunity to express their opinions, about the role of e-learning in boosting their professional development.

c) To identify the factors that have an impact on teachers' professional development. There are numerous factors that affect teachers' professional development through e-learning, such as the level of knowledge and skills of teachers concerning the use of ICT, their perception about continuous professional development, the support on behalf of the schools' principals, the design of the program, etc. Thus, there is an interest in identifying these factors and examining the extent to which they either positively or negatively affect the decision of teachers to take part in an education program through e-learning.

Based on what has been presented so far, as well as the aim and the objectives of this research, the research questions that this study will try to answer are the following:

1. To determine whether EFL teachers in Greece are asked about their educational needs.
2. To evaluate the level of the support they have from the school and the state in the context of their professional development, not only through e-learning, but also in general.
3. To identify the educational needs of EFL teachers.
4. To identify whether EFL teachers' acknowledge, understand and accept the important role of e-learning in facilitating, supporting and encouraging their professional development.
5. To examine EFL teachers' perceptions concerning the factors that encourage or hinder them to take part in an education program using ICTs (e-learning method) for their professional development.

The methodology used for the purposes of this study is quantitative, since it can generate statistics through the opinions expressed by a large number of participants (Dawson, 2009).

1.3. Concept of Professional Development

The term 'professional development' refers to various activities, whose goal is the professional and personal development of those who belong to a particular profession or workplace. This means that the professional development of teachers is defined as those activities that develop the abilities, skills, expertise and other characteristics of a teacher (OECD, 2009). Thus, this process aims to strengthen the relationship of teachers with the knowledge, the human and pedagogical dimensions, as well as their connection with the social environment in which they live and work (Doukas *et al.*, 2008).

More precisely, Doukas *et al.* (2008) describe the needs of the teaching professional, as well as the basic elements of this profession. More specifically, teachers are required to: a) contribute to the promotion of new forms and 'products' of learning; b) redesign / reform the teaching and learning process in the classroom; c) work also outside the classroom, through cooperation with other social partners / stakeholders; d) integrate ICT in formal learning situations, but also in all aspects of their professional practice; e) act as scientific professionals producing educational / research project. The elements of the teaching profession are categorized in four groups. The first category refers to the basic principles of this profession. These principles are the following: a) profession with increased qualifications; b) professional of lifelong learning; c) profession characterized by mobility; d) profession based on partnership. The second category refers to the characteristics of teachers' profession. These characteristics are the following: a) profession of interpersonal relationships; b) working with knowledge, technology, and information; c) working within the community and with the society.

The third category refers to the competencies framework. According to this framework, the teachers: teach interdisciplinary lessons, support the development of the complete and lifelong learning independence of young people, create a safe and attractive school environment based on mutual respect and cooperation, teach effectively in heterogeneous classes of pupils with different social and cultural backgrounds and with a wide range of abilities and needs, which include also the special education, cooperate closely with their colleagues, parents and the wider community, participate in the development of the school, acquire new knowledge and implement innovations by participating in reflective practices and research, use ICT in activities and tasks, as well as in their own continuing professional development, have the ability of self-learning in the context of continuous professional training process throughout their careers. The final category refers to reflective practices and research, according to which they continue to reflect on their practice in a systematic way, conduct research-based teaching, incorporate into their teaching the results of teaching and academic research, evaluate the effectiveness of their teaching strategies, and finally assess their own training needs. Based on the above, we assume that teachers should have competencies that refer to all these elements and characteristics of their profession. Hence, their professional development should provide then with the necessary knowledge and skills, as it is also described in the next section.

1.4. Significance of Professional Development of Teachers

Teachers' professional development is necessary, given the fact that education is a dynamic process and thus schools should respond to the changes occurred in the wider external environment. Within this framework, teachers should increase their knowledge, skills and competencies, so as to be able to respond effectively to these changes (Chong *et al.*, 2011; OECD, 2009; Thompson *et al.*, 2013). The professional development of teachers give them the opportunity (OECD, 2009) to update the knowledge of teachers about a specific subject within the context of the latest developments in their specialty; b) to upgrade the skills, the attitudes and the approaches to learning and teaching within the framework of the development of new teaching methods and techniques and the new conditions in educational research; c) to be able to implement changes in the curriculum or in various aspects of their teaching practice; d) to exchange information and experiences; e) to become more effective.

In addition, through their professional development, teachers have the potential to form a professional identity, and hence teachers feel as a member of a learning community (Komba *et al.*, 2013). Moreover, through this professional identity teachers are more easily adapted to the school climate and at the same time they contribute to the shaping of this climate and the school culture (Schuck *et al.*, 2012). This is based on the fact that the culture is shaped through the knowledge, abilities and skills of teachers, their beliefs and their innovations introduced, particularly in the context of the ongoing changes taking place in the wider context in which they work (Chong *et al.*, 2011). Therefore, teachers' professional development, which leads to improved knowledge, abilities and skills of teachers, enables the school unit to form a strong culture, being adapted to internal and external influences and changes, increasing its effectiveness.

What is more, teachers' professional development is essential for the school units in terms of introducing and implementing changes and innovations. Perraton (2010), also emphasizes that education programs through ICTs are important in lifelong learning of teachers, since they focus on upgrading the knowledge, skills and competencies of teachers, in the change of the curriculum, in introducing innovation, and in fostering teachers' career. Through professional development, teacher can help the school unit towards this direction, regarding the context of curriculum (Ha *et al.*, 2010; Thompson *et al.*, 2013). In addition, they can help schools to be adapted to the constant changes occurred in the wider environment, and to meet students' needs. In addition, they can contribute to the management, support and adoption of these changes, for example through the communication with parents, the support of students, and the strengthening of other teachers (Thompson *et al.*, 2013).

Apart from the above, teachers play an important role in the learning process. Through their teaching behaviour and their personality, teachers affect students' motivation and participation in learning process (Papanaoum, 2008). Through their professional development, teachers improve their professional personalities, enhance elements of their character related to their professional role, improve their teaching practices, and therefore they positively affect the learning process.

For this reason, teachers should know how learning occurs, as well as ways to strengthen the learning process (Schleicher, 2012). The professional development of teachers should provide them with the necessary knowledge with regard to learning theories. Through the acquisition of this knowledge, teachers can decide which teaching methods should be applied, in order for the teaching to be effective and lead to knowledge acquisition on behalf of students. In this context, they should also acquire the appropriate knowledge and skills regarding the teaching methods that will contribute to students' interest stimulation and active participation in the learning process.

Additionally, the effective management of conflicts in the classroom and the school unit, the creation of positive relationships with all the stakeholders in education, the effective communication within and outside the school unit, the discipline in the classroom, the diagnosis and management of behavioural problems of the students, the identification of learning difficulties and other impairments, as well as administrative issues, are areas which fall into the wider scope of teachers' professional development (OECD, 2014; Stoelinga, 2008). Nadeem *et al.* (2013), claim that children's psychology and co-curricular activities should also be part of the programs aiming at teachers' professional development.

Finally, the inclusion of many refugee and immigrant children in the educational system and the consequent emerging multicultural classroom, lead to new challenges for teachers (Soriano-Ayala and González-Jiménez, 2015). These challenges stem primarily from a lack of knowledge of the language from the foreign students and secondly from the different cultural backgrounds of students, which can create a conflict between indigenous children and children of migrants and refugees, leading to the disruption of school cohesion. Therefore, teachers should acquire

the skills that will enable them to respond effectively to these challenges and contribute to the successful inclusion of children of migrants and refugees in the educational system (Tilley-Lubbs, 2011). In this context, teachers should also understand the causes of migration, the problems that characterize refugee / migrants, as well as the benefits deriving from interaction of different cultures, in order to have a positive attitude towards these children, to reduce the stress caused by their presence in the classroom and serve as a model for all students, teaching respect for diversity and multiculturalism (Soriano-Ayala and González-Jiménez, 2015; Tilley-Lubbs, 2011).

Apart from the immigrants / refugees, in classrooms there are students with different learning peculiarities, such as students with special educational needs. For this reason, teachers should be able to meet the needs and demands of these students. Therefore, teaching children with special education needs is one more area in the programs for teachers' professional development (Coates, 2012).

Overall, teachers are required to undertake a role, for which the knowledge and skills acquired during their basic training are inadequate (Thompson *et al.*, 2013). In particular, teachers should be able to apply specific teaching practices and teaching methods that meet the specific needs of each student (e.g. students with special educational needs), be aware of the latest pedagogical changes, to incorporate innovations facilitated by the technological developments in their teaching, to contribute in the curriculum design, and finally be able to adapt and respond to changes occurred in the broader environment in which the school unit operates.

1.5. E-learning as a Tool for the Professional Development of Teachers
1.5.1. Concept of e-learning

In an effort to clarify the term 'e-learning', Sangrà *et al.* (2012) mention that the definitions provided by the international literature focus on different aspects of e-learning, which are distinguished into four categories of definitions: a) definitions that emphasize the technological characteristics of the electronic learning; b) definitions explaining e-learning as a means of access to knowledge, through learning and teaching; c) definitions that consider e-learning as a means of communication and interaction s and finally d) definitions that accept e-learning as a new way of learning and as a tool that contributes to the improvement of existing educational practice.

E-learning uses new multimedia technologies (ICT) and the Internet to facilitate the access of students and teachers to information resources and services, as well as the exchange of information and distance cooperation. According to Sofos *et al.* (2015), the term e-learning refers to the use of a computer connected to the Internet, to enable access to information and contents, which are evaluated as suitable and efficient for learning. More specifically and in relation to the learning process, the term e-learning includes all the forms of learning in which electronically means are used, for the purposes of presentation and distribution of educational content and of supporting communication and interaction between the parties involved in this process. An extended definition of e-learning is given by Jethro *et al.* (2012):

> "E-learning can be defined as a learning process created by interaction with digitally delivered content, network-based services and tutoring support. E-learning is any technologically mediated learning using computers whether from a distance or in face to face classroom setting (computer assisted learning), it is a shift from traditional education or training to ICT-based, personalized, flexible, individual, self-organized, collaborative learning based on a community of learners, teachers, facilitators, experts. E-learning is the use of Internet technologies to enhance knowledge and performance".

The e-learning environments can be characterized by six dimensions, which are distinguished from traditional classrooms and teaching assisted by computer. These dimensions are the following: time, place, space, technology, interaction and control. E-learning is the general term used for computer-assisted learning. However, it differs from the distance education because in the case of e-learning, the computer is considered a prerequisite (Falch, 2004). Jethro *et al.* (2012), on the other hand, mention that e-learning can be distinguished in to e-learning modes: distance learning and computer assisted introduction. Other ways of referring to e-learning are multimedia learning, Web-based learning, online learning, or Internet-based learning (Jethro *et al.*, 2012). For the purposes of this research, the definition given by Jethro *et al.* (2012) will be adopted, since we perceive it as more complete, given the fact that it includes all the means by which e-learning occurs, and its basic characteristics (e.g. flexible and individual).

E-learning can occur either through synchronous learning that takes place in real time or via asynchronous, held at a time and place chosen by the student and the teacher (Ghafri, 2013; Jethro *et al.*, 2012; Murphy *et al.*, 2011; Simonson *et al.*, 2012). Synchronous education is based on synchronous interaction between trainers and trainees, and the systems used for distance education, such as videoconferencing, audio conferencing or both. For this reason it lacks the flexibility in relation to scheduling, place of learning, and individual attention, compared to asynchronous instruction (Murphy *et al.*, 2011). This is because asynchronous education takes place in real time via two-way video and audio transmission.

The environments of synchronous learning are characterized by specific problems and thus they present their own learning challenges, which are presented hereunder (Falch, 2004):

a) Technological investment: Students of both asynchronous and synchronous electronic learning environments should have access to computers.

b) Technological dysfunctions: The tradition of teaching in real time on the internet may be interrupted due to technical failures, including errors of learning management and connectivity systems, such as the freezing of video frames during transmission on the Internet and the interruption and / or distortion of sound. These challenges are unique to each individual installation. In an asynchronous form, learners have the responsibility of dealing with

problems. In synchronous learning, the teacher is responsible for the delivery of teaching content, as well as the delivery medium, and thus for solving these issues raised.

c) Virtual presence: Participants must be in a location where they have access to a computer and high speed internet connection to participate in classrooms in synchronous education. This can be challenging for students who attend other classes in the educational area or are away from their equipment.

d) Technical expertise: Participants should feel comfortable with computers, and they should also have some level of expertise in order to conduct or participate in a synchronous e-learning environment.

On the contrary, in the case of asynchronous learning, the simultaneous interaction is not necessary. The material is available in a server, and learners can retrieve it any time they want. The material provided should be designed to meet the needs of learners. Asynchronous learning includes (Anastasiades, 2008):

    i.   The autonomous learning (self-study), where the main educational tool is the educational material (e.g. books, education assisted by computer, internet, etc.) and students should decide on the pace of education.

    ii.   The semi-autonomous learning, in which students can study the training material and communicate in pre-meetings with the teacher, through face to face meetings, email, chat rooms and so on.

    iii.   The participatory learning, in which communication between the teacher and students is asynchronous, and students study individually, following a defined work program.

However, five learning challenges are identified when using an asynchronous e-learning environment (Falch, 2004):

a) Difficulty of management control: In traditional classes, the teacher provides direction and structure. The environments of asynchronous learning are characterized by a high degree of control on behalf of the participants, who nevertheless face challenges in managing this control, because of the absence of direction and structure from the teacher. In a synchronous e-learning environment, learners should be able to have control of their own learning, without any necessary guidance from the teacher.

b) Overloading from the shift of responsibility and control: In an asynchronous e-learning environment, the teacher is not present when teaching is taking place. Thus learners do not have the opportunity to ask questions in real time. In a synchronous e-learning environment, however, the teacher is present at the time of teaching, so that students can ask questions in real time.

c) Feeling of isolation: Students in asynchronous environments have access to teaching material regardless of the teacher, and do not participate in a real-time interaction with their peers. Thus they may feel isolated. On the contrary, students in synchronous environments, can have real-time interaction with both the teacher and their peers, since they are connected via webcam, reducing the feelings of isolation.

d) Anxiety feeling: Participants who feel stress at the time of instruction in synchronous e-learning environments have the possibility of direct assistance through audio and video communication. This element, however, is not available to participants in an asynchronous environment, where there will be a delay in getting help and support.

e) Difficulty in time management: Students in asynchronous education need to manage their access time to teaching, because there is no definite access time. The flexible 'anytime' access to an asynchronous environment creates time management difficulties. On the contrary, synchronous environments (or face to face) have specified time, where students have prior knowledge regarding the time constraints, so there are no time management challenges.

In both cases, the applications used are divided into two categories:

1) Learning Management Systems (LMS): can be a complement to traditional educational process, supporting numerous applications, such as the registration of learners, discussion, and tests. The conditions that these systems should meet are (Saadé, 2010): a) availability, which means that they should serve the needs of various learners, with different educational characteristics; b) scalability, which means that they should have potential for growth, so that they can respond to the future needs of learners; c) usability, in order to facilitate users; d) interoperability, so as to support content in various forms; e) stability, in order to be reliable for frequent use and finally f) safety, which is related to the protection of user data. Typical examples of Learning Management Systems are Java and Joomla.

2) Content Management Systems (CMS): are systems which attempt to address problems arising from inefficient management of educational materials and improper design of the site (Saadé, 2010). Content Management Systems are web applications, specifically designed to support digital learning. Typical examples of Content Management Systems are the e-learning platforms Moodle, e - Class and Blackboard.

Based on the above, we can see that there are some limitations concerning e-learning, not only in the use of the synchronous and asynchronous means of learning, but also in its material. The latter should be designed in such a way, in order to be compatible with the platform used and its characteristics, in order to be characterized by easy access and use on behalf of the learners. In addition, some major problems should be overcome in the design and implementation of an e-learning program, which could hinder teachers' participation in it. Overall, there are many challenges concerning an e-learning program that should be taken into account, when such a program for teachers is designed. This leads to some serious disadvantages of e-learning in the context of teachers' professional development. However, its advantages cannot be overlooked. This is the subject of the next section.

1.5.2. Advantages and Disadvantages of e-learning in the Professional Development of Teachers

As it is mentioned by Jethro *et al.* (2012), "e-learning technologies offer learners control over content, learning sequence, pace of learning, time, and often media, allowing them to tailor their experiences to meet their personal

learning objectives, to manage access to e-learning materials, consensus on technical standardization, and methods for peer review of these resources […] E-learning can be used by medical educators to improve the efficiency and effectiveness of educational interventions in the face of the social, scientific, and pedagogical challenges".

The contribution of teacher education through e-learning and ICT in the first professional steps of teachers was mentioned in the study of Perraton (2010). The author points out that a number of examples in this category refer to sub-Saharan African countries such as Kenya and Uganda. The e-learning programs in these countries have reduced the problem of teacher shortage. Similarly, Kangai and Bukaliya (2011) state that one of the reasons for the introduction of e-learning in teachers' professional development in various countries is to meet the demand for teachers. Nadeem *et al.* (2013), claim that teachers' professional development play a crucial role in the improvement of students' learning.

Holmes *et al.* (2010) mention that the use of ICT in teachers' professional development had positive impact, since the teachers who participated in the program adopted new and varying ideas regarding their teaching practice, and acquired knowledge and skills regarding the implementation of ICT in the classroom. Moreover, through their cooperation with other teachers in the learning community they were able to reflect upon their teaching style and improve their teaching strategies and methods.

Papadakis *et al.* (2014), studied the exploitation of synchronous and asynchronous learning in teachers' professional development via Moodle, LAMS, BBB/Centra and OpenSim. These technologies benefited teachers in remote areas (e.g. islands), while they allow their professional development with low cost. The low training cost as a factor for the introduction of e-learning in teachers' professional development was found in the study of Kangai and Bukaliya (2011) as well. In addition, teachers obtained knowledge about Web 2.0 tools, whereas they also interacted with other teachers. Similarly, Meletiou-Mavrotheris and Paparistodemou (2010) focused on a program for teachers of primary and secondary education and found that this program facilitate the cooperation among teachers, even from other countries, provide access to the whole educational material and in general it leads towards a coherent and flexible program for their professional development. The interactivity and flexibility are two main advantages of e-learning, as it is mentioned by Jethro *et al.* (2012), along with motivation, efficiency, and cognitive effectiveness.

The study of Kyalo and Hopkins (2013) found that e-learning is characterized by increased perceived usefulness on behalf of the users, especially with regard to the following areas: a) about using online learning to further their skills and knowledge; b) provision of the same quality of knowledge and skills as face to face learning; c) about using e-learning to improve their job performance; d) about using e-learning to increase the quality of training. In addition, there was moderate increased perceived ease of use, since teachers claimed that online learning is flexible and suitable for then as adult learners, and that they prefer looking for reading materials online than in libraries.

1.5.3. Factors that Enhance or Hinder the Professional Development of Teachers Through e-learning

According to Herdeiro and Costa e Silva (2013), the factors that hinder teachers' participation in professional development programs are the following: duties of teachers apart from their main job (e.g. bureaucratic procedures), lack of incentives, legislation that does not facilitate teamwork but competition, as well as the bureaucratic model of the education system. In addition, Holmes *et al.* (2010) argue that the cooperation among the teachers, as well as their feedback, are factors that facilitate their learning through the use of ICT. Kallonis and Sampson (2010), found that the use of a 3D virtual environment can lead to increased teachers' participation and positive experiences, primarily because it allows for interaction. However, the unfamiliarity of teachers with such technologies was the main problem.

BoBose (2004) focused on the use of new technologies in a training program for primary school teachers in sub-Saharan Africa and more specifically in Botswana. The research indicated that there was a lack of interest and confidence on behalf of the teachers regarding the use of these technologies, but some of them felt that training through ICT is effective. The lack of computers, the difficulty of access to the internet, and the reduced hours of the program were the factors that caused their dissatisfaction with the program. Apart from this, de Vries *et al.* (2014) found in their study that teachers participated more in such programs and were satisfied from them, when these programs were oriented towards students, namely on students' needs / student learning.

Kangai and Bukaliya (2011), examined the professional development of teachers through e-learning programs and found that these programs play a crucial role in both initial teacher education, and their lifelong learning. Based on these findings, the authors propose that the effectiveness of these programs could be increased through government support, and the adoption of a collaborative model in teacher training. In a similar context, the research of Silva and Herdeiro (2014) found that the legislation of the Portuguese government regarding teachers' professional development was ineffective and led towards their negative perception regarding their professional development and to a negative impact of these programs on their teaching practice and subsequently on students' performance. On the contrary, Dayoub and Bashiruddin (2012) focused on teachers of English language in Syria and Pakistan and found a positive support on behalf of the governments. Moreover, it was found that teachers wanted more programs for their professional development.

Ravhudzulo (2003), mentions the importance of teachers' participation in the design of the program concerning their professional development, in terms of its content, structure and procedure. Through his study it was also indicated that teachers would like to contribute to the program's evaluation, namely in the identification of its strengths and weaknesses. Additionally, since the traditional role of the teacher changes, these programs should take into account this new role on behalf of the teacher, as well as the development of critical thinking, while it should be

characterized by specific goals, and relevant content in order to meet the needs of teachers. The author also emphasized the important role of the trainer, who should respect the autonomy of the learner. These outcomes lead to the issues related to the design of the programs aiming at teachers' professional development.

Additionally, in order for the successful implementation of teacher professional development through e-learning, the following factors should be taken into consideration, as Kaur (n.d.) argues: shared vision, access to resources of e-learning; skilled teacher educators, collegial support and professional development, technical support, content standards and curriculum resources, student-centered teaching; evaluation of implementation of e-system, and support policies and follow up.

Further, the demographic characteristics of teachers may influence their decision in taking part in a training program, either via e-learning or other forms of distance learning. For example, the study of Saar *et al.* (2011) found that men of younger age are more likely to take part in educational programs, compared to women and older people. In addition, male teachers have been found to be more in favour of using ICTs compared to female Umar and Yusoff (2014).

Finally, the absence of face-to-face communication in an e-learning program can reduce the perceived ease of use on behalf of the participants. This was found in the study of Kyalo and Hopkins (2013). More precisely, the participants in the research stated that one cannot so easily successfully complete a course online without face to face sessions, and that they do not prefer so much online learning to face to face learning.

The above sections described the advantages and disadvantages of e-learning and how it can contribute to and facilitate teachers' professional development, as the second research objective states. Apart from this, however, there were also identified through the results of previous studies some factors that may be discouraging or encouraging in teachers; participation in e-learning programs. For this reason, there are some factors that should be considered when an e-learning program for teachers is designed and implemented. This is what the third objective tries to seek, namely the factors that have an impact on teachers' professional development. This is discussed in the following section.

1.5.4. Issues Related to the Design of Programs for Teachers' Professional Development

The design of a program for teachers' professional development should take into account some parameters. The first is that the programs should consider the whole personality of the teacher, as this personality gives meaning to the teaching practice Day (2003). Moreover, it is very important to conduct an examination of the teachers' educational needs, in order for the program to meet these needs through its content (Nadeem *et al.*, 2013). Harwell (2003), argues that both the content and the structure of the program is equally important parameters in the designing of a program, and should be based on their educational needs in order support their professional development. One more issue that should be taken into account in the design of a program supporting teachers' professional development is its character. The program may be mandatory or optional (Manesis, 2014). In addition, the program may take place in or outside the school (OECD, 2009). Furthermore, the program may be short-term or long-term, and it can take place during the working hours, or in weekends, after the working hours, in holidays etc.

Apart from the above, the evaluation of the program is of great importance (Kaur, n.d.). The evaluation will provide information regarding the effects of e-learning on teaching and learning outcomes. Moreover, it will allow the identification of any difficulties and / or problems, allowing for their improvement, in order to reduce the negative impact on the learning process. Furthermore, this evaluation will provide outcomes regarding whether the aims of the program were met. This will enable the policy-makers to re-design, if necessary, some of the main components of the program, as for example the modules, or the teaching methods, in order to meet teachers' need. Besides, whether these needs are explored by the state, through an official survey, or the organization in which teachers work is an important research question that this study will try to answer.

Finally, it is of great importance to ensure that the adult teacher should be able to meet the demands of his / her job position. The role of the teacher is crucial in the communication within the group, between trainer and trainees (Haggarty and Postlethwaite, 2002; Spaho, 2013), as well as psychological and emotional support (Angelaki and Mavroidis, 2013). In general, trainers should have the necessary knowledge and experience on training, and all the relevant competencies Nadeem *et al.* (2013). One more issue that should be taken into account is the institution that will design and implement the program, e.g. school administration, Ministry of Education, or other adult education institutions (OECD, 2014), since the authority who has designed and implement the program should have clear concept of training (Nadeem *et al.*, 2013). The existence of the necessary and adequate equipment, the adequate and in-time planning for the training and its activities, as well as the convenient time and training avenue, are some more issues that should be taken under consideration when designing a program for teacher development (Nadeem *et al.*, 2013).

In the Greek literature there is an absence of complete studies concerning EFL teachers' professional development, and especially through e-learning. Sipitanou *et al.* (2012) explored the training and educational needs of teachers serving in the primary education and found that they want to be trained in issues related to students' motivation, new method of teaching, quality in education, new curriculum and educational innovations. Overall they claimed that the needs of the educational unit in which they serve and second their own needs should determine the context of the educational programs. Distance training programs and programs designed and implemented by universities were positively rated. However, workshops and exchange of experiences were the two primary forms of training preferred by the teachers. Finally, it was found that the practical implementation of the theory and the improvement of their teaching ability were the most important aims of the training.

The same question addresses also the study of Kyriaki and Pardali (2012). Students' learning problems, aggressive behavior, student conflicts and empirical - collaborative teaching methods are the subjects that were

identified by the teachers as important in their training. The main features of these programs are vocational training and the format of training programs - lifelong and distance learning. In addition it was indicated that teachers need to be educated in subjects of school reality and classroom management, as well as in modern pedagogical and didactic approaches, based on adult education standards.

Finally, tried to identify in their study the education of EFL teachers in the case of students with visual impairments. Most teachers claimed that they have not received any education related to the educational needs of visually impaired students. Most of the trainees attended seminars or personally studied Braille-related topics, material modification and vision problems. In addition, the overwhelming majority of teachers pointed out as necessary the English language instruction for students with visual impairment, the assistive technology and the special education. Overall, it was indicated that there is a lack of teacher education in this field.

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