Teachers’ Perspectives on Information and Communications Technology Training Programmes

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Abstract

The aim of this particular paper is to present teachers’ opinions concerning their training in ICT and the development of their professional skills as a result of the training process in ICT. The sample of this particular research consisted of 162 teachers who at that time worked in schools of Primary Education in Thessaloniki in Northern Greece. The findings of the present research showed that the teachers improved their skills sufficiently, whereas there was a partial satisfaction derived from the trainers’ methods in the programmes, as well as a lower satisfaction concerning the organisational structure of those programmes. Furthermore, younger teachers and those that had experience in the use of ICT or had previously had a training of long duration appeared to have a more positive attitude towards the growth of skills and the use of ICT, as well as the organisation of training.

Keywords: ICT; Primary education school teachers; Training; Professional development.

Introduction

The rapid and continuous development of sciences and technology constitutes an important factor of influencing not only the social structure but also the whole organization of the Greek
educational system. The contemporary job market configuration and the alternating globalizationised environment brings back imperatively the need for continual training or education of all the employed people (Halpin & Moore, 2006). Both the educational system and the teachers-educators ought to be adapted in order to face all the new society challenges effectively. To date, the need for the in-service teachers’ training and further training in contemporary knowledge of all educational levels becomes a necessity (Mattheou, 1999). This necessity plays an important role in teachers’ better and more efficient performance as far as their duty and new roles in schools are concerned.

**Teachers’ Training And Its Connection With Their Professional Development**

Teachers’ education and training is not just an arrangement concerning organizational issues. It constitutes a process that in proportion to the theoretical paradigm with which it is approached, refers to phenomena of reproduction or change concerning the socio-economic structure. Teachers’ education and training appears to concentrate on certain issues, such as teachers’ personal and professional development and even the updating of the entire educational process (Athanassoula-Reppa, Anthopoulou, Katsoulakis & Mavrogiorgos, 1999; Davis-Kahl & Payne, 2003). Therefore, training is considered to be part of the general effort for configuring an aspect of a more generalized policy. The training efforts, the goals and the thematic dimensions are placed among a specific political-ideological frame and bring out its perceptions, values and socio-cultural stereotypes (Ballantine & Hammack, 2009).

Teachers’ training belongs to the field of post-school education concerning modern cognitive areas either for knowledge completion or even for professional training. It is defined as the systematic effort that concerns new knowledge acquisition straightforwardly connected to their educational duty (Papanaoum, 2005). This means that ‘training’ presupposes the systematic planning and development of programmed activities with a tutorial and professional character. Its goal is to meet the interests and needs concerning teachers’ personal and professional development as well as the total function of our educational system (Hatzipanagiotou, 2001). ‘Training’ is not identified only with the acquisition of new knowledge but also with the process of making up for incomplete knowledge concerning the basic-initial university studies. Teachers’ basic university education on its own cannot correspond to the whole variety of theoretical and practical knowledge, interests, skills and abilities that teachers need during their working career (Athanassoula-Reppa et al., 1999). Training is unceasingly connected to the entire educational activity (Vakaloudi, 1999).

Taking into consideration the aforementioned claims, it becomes understood that training constitutes an integral part of teachers’ continuous professional and personal development which is conducted in the framework of the educational system (Xohellis, 2007). As Bourantas (2005: 296) points out, “the majority of people are satisfied and motivated by their job when, within the workplace context, they develop their knowledge and abilities, as well as their personality ……… and when it certainly contributes substantially to their professional growth and progress.”
Therefore, training constitutes a process of challenge, reinforcement, support and offering of opportunities for teachers so that their professional development and growth can be achieved. This particular process cannot be regarded as the one that should be imposed without any reaction, because teachers themselves develop their abilities and interests (Elliot, 1977). The existence of a certain educational policy contributes a lot towards this direction, which in the context of a greater educational policy, promotes teachers’ academic, professional and personal development (Athanassoula-Reppa et al., 1999).

Under this particular spectrum, ‘neo-Marxist’ theories are illuminating the social phenomena more on the part of the structures of authority relations and the social control between the ascendants and all the working people. These theories approach the training processes as well as the knowledge itself as forms of marking the higher authority and at the same time as the field of social struggle, imposition and predominance or social negotiation. The possession, the access, the use and the operation of the advanced technological tools identify a special cultural situation that presupposes the acquisition of knowledge and skills. These technological tools constitute expressions of power and relative mightiness (Castells, 1998; Mavrogiorgos, 1983).

On the other hand, scholars take for granted that the various training processes will facilitate the development of the principles’ institutions of this particular structure and will provide the emerging issues of the educational act with an answer (e.g., Blumenfeld, Kempler, & Krajcik, 2006; Koo, 2008; Komis, 2000; Raptis & Rapti, 2006; Teo, 2008).

**Teachers’ Training And Information And Communication Technologies (ICT)**

Recently, the integration of ICT in education and the transformation of the methodological and teaching practice concerning the educational process have become the main issue of references and researches (Alsop & Tompsett, 2006; Raptis & Rapti, 2006).

ICT constitute a powerful cognitive tool for the selection, elaboration and presentation of information, the development of modern communication patterns (Honey & Henriguez, 1993) and the exchange of desirable practices among teachers (Achilles, Keedy & High, 1994). In addition, ICT reinforce teachers in developing skills for the configuration of an appropriate interactive learning environment and the development of differentiated teaching processes (Rumpagaporn & Darmawan, 2007). ICT constitute an environment that facilitates and reinforces the collaborative-exploratory learning and the cross-curriculum approach of teaching subjects (Koo, 2008; Komis, 2000). There are expectations in an international level that ICT could facilitate the transition to ‘education for all’. Especially, it is stressed the fact that ICT can facilitate people and social groups, as these groups both express basic learning needs that cannot be fulfilled by the conservative educational means. The introduction of ICT in education has created a new reference framework.

Within this particular framework the teachers’ role is reformed. This role is closely connected to their readiness and training. Teachers are burdened with the implementation of modern cognitive tools in the teaching practice as well as the students’ support for their incorporation
in the job market (Blumenfeld et al., 2006; Teo, 2008). However, ICT by itself cannot recommend the updating of a school unit automatically. Taking into consideration Castells’ claims (1998) about the job environment, we can mention that teachers have never been so vulnerable towards the organisation of the teaching practice before, as they are isolated inside a fragile network due to its constant changes.

In the contexts of this post-modern paradigm anyone can make out differentiations and transformations concerning the social and labour relationships, in people’s biographies, in the teaching methods and the confrontation of contemporary reality. The old contract constituted a symphony of relations focused on teacher-based teaching and the students’ “devotion”. The new contract in education tends more and more to become of short duration, based mostly on modern social standards, while the ‘devotion’ has been erased as far as the meaning is concerned. Therefore, teachers are in need for education and training (Pelgrum, 2001) adjusted to the new social conditions. This particular need should contribute to the acquisition of a higher level of skills and the establishment of lifelong learning (Vergidis, 2000), as well as the development of intellectual thought and the ability to compose constructively the plentitude of irritations and experiences that overwhelm it (Giavrimis, 2010).

On the contrary, training programs do not appear to have the desirable results in the configuration of knowledge, skills, motives and positive attitudes towards the integration of ICT in education (Barton, & Haydn, 2006; Kiridis, Drossos, & Tsakiridou, 2006; Pavlou & Vryonides, 2009), due to problems attributed to the organisation, the lack of educators-trainers and the inappropriateness of equipment (Kiridis et al., 2006; Becta, 2004). According to the research conducted by Politis, Karamanis, Roussos and Tsaousis (2000), the teachers’ aspect about the insufficient support of the teaching process, the deficiency of self-confidence concerning the use of computers, as well as the technical problems of the laboratory used in this training programme were indicated as the negative points for the social and pedagogic evaluation of ‘Ulysses’.

Teachers’ Training In Greece

During the last two decades an intense and systematic process as regards teachers’ training in ICT, which was presented initially as a parameter of a more general reformation effort for education, is noticed (Andreou, 1999). Quite indicative towards this direction is the fact that in Greece 17% of the appropriation of the axis called ‘Information Society’ included in the 3rd Community Support Framework, exclusively concerned the introduction and assimilation of the Informatics in education (Papandropoulos, 1998). At the beginning of 1996 the first in-service school programmes concerning the secondary level teachers’ training in ICT are remarked. They were included in the context of a more general Operational Programme known as ‘Ulysses’. These programmes aimed at “the creation of a school society mass incorporating ICT as an integral part of an everyday learning process” (Papadaniil, 2005). Every teacher, irrespective of his/her specialty, had the opportunity to get trained in issues of Informatics and networking technologies as well as to introduce contemporary parameters in the learning process correlating theory and practice. These teachers, in order to face the demands of the
programme effectively, received a kind of special training in post-graduate level form universities that lasted one year (Tzimogiannis, 2002).

In the context of the Action of the Third European Support Framework “Teachers’ Training in the Exploitation of ICT in Education” and the Actions of the Operational Programme EPEAEK II “Primary and Secondary Teachers’ Training in basic skills of ICT in Education” and “Teachers’ Training in the Use and the Exploitation of ICT in Educational Teaching Process” training programmes were implemented for primary and secondary education teachers. The aforementioned programmes had to do with the acquisition of knowledge and skills for the use of ICT in the teaching process.

This research is a part of a general research concerning the teachers’ training needs assessment and the application of ICT within the educational system and their influence in the teaching, the learning and the cognitive process. The aim of this particular paper is to present teachers’ opinions concerning their training in ICT and the development of their literacy skills as a result of their training process.

Method

Sample

The sample of this particular research consisted of 162 primary school teachers, who had participated in certain in-service ICT training Programmes (population 2,828 primary school teachers). They worked in schools that belonged to the municipality of Thessaloniki in Northern Greece. 70 of them (43.2%) were male, while 92 (56.8%) were female. As far as their age is concerned, 7 of them (4.3%) were under 30 years old, 69 of them (42.6%) belonged to the age group ranging from 31 to 40 years old, 81 of them (50%) belonged to the age group ranging from 41 to 50 years old and 5 of them (3.1%) belonged to the age group ranging from 51 to 60 years old. From the additional demographic elements that were collected 17 people (10.5%) were single, 138 (85.1%) married, 4 (2.5%) divorced and 3 (1.9%) in an open relationship.

The mean concerning the teachers’ working years of the sample was 14.14 (S.D. = 6.72), the medium reached 13 years, the minimum figure is 1 year and the maximum one was 30 years. As far as the years of the teachers’ BA title holding is concerned, there seems that the average reached the 20.35 years (S.D. = 6.28), the medium was 21 years, the minimum figure is 2 years (in Greece, teachers of Primary Education are straightforwardly adsorbed in the labour market after they have completed their university studies, therefore their time off work is very limited) and the maximum one was 33 years.

Research Instrument – Questionnaire

In order to conduct this research, a self-constructed questionnaire concerning the teachers’ training in ICT was used. In total, it included 80 questions. Its structure was based on: 1) respective researches and findings of the literature (Karakasidis, 2005; Kiridis et al., 2006;
Kokkinopoulos, 2006; Malama, 2005; Pelgrum, 2001; Pavlou & Vryonides, 2009; Zagouras, 2005); 2) the Primary School Curriculum for the IT subject (YPEPTH, 1998, 2002 and 2003); 3) MELLRA’s guidelines (Since 2009 YPEPTH has been renamed into Ministry of Education, Lifelong Learning and Religious Affairs (MELLRA in Greek) on the particular course; and 4) on researchers’ experience in Primary Education issues.

These questions were allocated in five thematic areas: a) Reasons for attending the programme: seven questions were included concerning the reasons for participating in an ICT programme. The questions were of the following form: ‘Why is my attendance obligatory on the part of my service?’ and ‘Why should I exploit ICT for preparing my teaching subject?’ b) Satisfaction and teaching methods deriving from the programme in ICT. In this area fourteen questions were included. The questions were of the following form: ‘Are you satisfied with the date (day and time) that the training programmes in ICT were carried out?’ and ‘Were the teaching methods adjusted to the objectives of the Training Programme?’ c) Knowledge and skills concerning ICT after the completion of the programme: fifteen questions concerning the knowledge and skills that the teachers gained after the completion of programme were included. The questions were of the following form: ‘Are you able to get connected to the Internet and seek information concerning a particular topic?’ and ‘Can you organize the digital information (files) in the storage means of a P/C?’ d) Attitudes related to ICT after the completion of programme: Eleven questions referred to the teachers’ attitude towards ICT and their incorporation in everyday educational practice. The questions were of the following form: ‘Do you feel a sense of ‘security’ when you are about to use a P/C?’ and ‘Do you believe that ICT can make the teaching process more attractive and effective?’ e) Frequency and duration of training in ICT that they prefer: five questions referred to the teachers’ opinions towards the characteristics of ICT training programmes that teachers wish to follow: ‘Annual training with an acquittal from their teaching duties’, ‘School-focused in-service education’ and f) Sociological perspectives of in-service training: twenty eight questions referred to the teachers’ opinions towards the training in ICT and its relation to education politics: ‘Teachers’ training programmes based on demands of economic system’, ‘Teachers training programmes based on social demands’.

In the first part of the questionnaire, there was a selection concerning the basic socio-demographic characteristics, such as sex, age, marital status, place of residence, working status and the teachers’ monthly income.

Furthermore, the questionnaire was given to twenty primary teachers, who evaluated the 5-Likert scale questions about the relevance of the content to in-service training of primary school teachers. An analysis of the evaluation results (Mean = 4.9) showed that the content validity of the questionnaire is adequate. In addition, the reliability coefficient for the split-half test was 0.93 and the internal consistency reliability coefficient was 0.96.
Findings

In order to achieve the best statistic analysis regarding the opinions of those teachers who had attended the training programmes in ICT, the method of factor analysis was used but only for these questions of the questionnaire that related to the examined topic of the present paper. The thematic areas b and c of the questionnaire which we analysed consisted of twenty nine questions. Furthermore, the method of principal component and the squarely rotation of axes was used. The criterion of eigenvalue and the diagram of factors were also used so as to designate the number of factors which present a load larger than 0.40. Just before the conducting of every factor analysis the theoretical and practical presuppositions required for the implementation of the factor analysis were examined and the efficiency of the data assured. Specifically, the existence of those variables with an important number of deficient measurements and large asymmetry was examined. The retrospection of innovations concerning the factors showed that the answers express a fulfilling distribution, whereas the number of people constituting the sample (N=162) was regarded as sufficient for the factor analysis.

As far as the internal consistency of the factors is concerned, the index Cronbach alpha for those factors that consist of at least three elements was calculated. This index refers to the analytical display of each factor.

Through the factor analysis of the questions and based on the eigenvalue -that should be greater than 1- the solution of the three factors was adopted. These three factors interpret the total 63.65% concerning the overall distribution (Kaiser-Meyer-Olkin Measure of Sampling Adequacy: .925).

In particular, the following factors came up: a) Skills and usage of ICT, b) Usage of teaching methods and techniques, and c) Organisational satisfaction. The first factor, which was the Skills and usage of ICT, interprets the 38.98% of the overall distribution. 18 questions of the following form were included: ‘Can you organize your digital information (files) in the storage means of a P/C?’ and ‘Do you use a video projector and the PowerPoint in order to present your teaching?’ The mean was 3.18 and the standard deviation was 0.85. The index of the internal consistency Cronbach alpha was .96. The second factor, which was the Usage of teaching methods and techniques, explains the 16.25% of the overall distribution. 7 questions of the following form were included: ‘Were the teaching methods adjusted to the teachers’ abilities and needs?’ and ‘Did the trainer use educational techniques (demonstration, role plays, brainstorming etc.) apart from lecturing?’ The mean was 2.75 and the standard deviation 0.58. The index of the internal consistency Cronbach alpha was .90. The third factor, which was the Organizational satisfaction, interprets the 8.43% of the overall distribution. 4 questions of the following form were included: ‘Are you satisfied with the material and the operation of the laboratory?’ and ‘Are you satisfied by the date (day and time) that the training programmes in ICT were carried out?’ The mean was 2.46 and the standard deviation is 0.54. The index of the internal consistency Cronbach alpha was .83.
Table 1: Means, Std. Deviation and Percentiles of the factors

<table>
<thead>
<tr>
<th></th>
<th>Skills and usage of ICT</th>
<th>Usage of teaching methods and techniques</th>
<th>Organizational satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean(^a)</td>
<td>3.18</td>
<td>2.75</td>
<td>2.46</td>
</tr>
<tr>
<td>Std. Déviation</td>
<td>0.85</td>
<td>0.58</td>
<td>0.54</td>
</tr>
<tr>
<td>Percentiles</td>
<td>25</td>
<td>2.72</td>
<td>2.43</td>
</tr>
<tr>
<td></td>
<td>50</td>
<td>3.28</td>
<td>2.71</td>
</tr>
<tr>
<td></td>
<td>75</td>
<td>3.78</td>
<td>3.00</td>
</tr>
</tbody>
</table>

\(^a\)1=Not at all, 2=A little, 3=Enough, 4=Much, 5=Very much

The means of the factors indicate a general positive opinion towards the training in ICT. To be more specific, it was revealed that: a) teachers did not express an absolutely positive opinion towards the training in ICT that had been carried out until then, b) the concentration of their opinions was close to the middle of the scale and depicted a deficient effectiveness and organisation concerning ICT programmes, c) they believed that they had developed their skills in ICT enough and they used them in the teaching practice, d) the trainers in ICT programmes did not manage to use the methods and the techniques effectively and according to the trainees’ needs, e) teachers were only a little satisfied by the organisation of ICT programmes and f) the teachers’ opinions were stable throughout the whole sample, since they were concentrated close to the middle of the scale according to the retrospective of the quadrants.

There were differentiations among these people who had attended training programmes of long duration (TPLD) (at least 100 hours) and those who had not. Thus, it was found out that a statistically significant differentiation concerning the factors ‘Skills and usage of the ICT’ and ‘Organizational satisfaction’ existed (Table 2). By expressing a statistically significant differentiation, the teachers that had not attended programmes of long duration believed less firmly than the others that a) the training in ICT helped them to develop skills relative to them and use them more for the configuration of the appropriate learning process and b) the arrangement of the programmes satisfied them. As far as the methods and the techniques used by the trainers are concerned, the opinions of the two different groups did not seem to have statistically significant differences.
Table 2: t-criterion concerning whether they attended training programmes of long duration and the factors

<table>
<thead>
<tr>
<th>TPLD</th>
<th>Mean&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills and usage of ICT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>3.02</td>
<td>0.92</td>
<td>-2.879</td>
<td>160</td>
<td>.005</td>
</tr>
<tr>
<td>One or more</td>
<td>3.41</td>
<td>0.65</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Usage of teaching methods and techniques</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>2.68</td>
<td>0.59</td>
<td>-1.782</td>
<td>158</td>
<td>.077</td>
</tr>
<tr>
<td>One or more</td>
<td>2.840</td>
<td>.55</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organisational satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>2.36</td>
<td>.56</td>
<td>-3.009</td>
<td>159</td>
<td>.003</td>
</tr>
<tr>
<td>One or more</td>
<td>2.61</td>
<td>.47</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup>1=Not at all, 2=A little, 3=Enough, 4=Much, 5=Very much

The teachers that had previous knowledge in ICT before the completion of the programmes compared to those teachers who did not have were differentiated with a statistically significant difference concerning the factors ‘Skills and usage of ICT’ and ‘Organisational satisfaction’ (Table 3). By expressing a statistically significant differentiation, the teachers that had not had previous knowledge in ICT before the programmes believed less firmly than the others that a) the training in ICT helped them to further develop the skills related to them and to use them more in the configuration of the appropriate learning process and b) the arrangement of the programmes satisfied them. As far as the methods and the techniques used by the trainers of ICT programmes are concerned, the opinions of the two different groups did not seem to have statistically significant differences.

Table 3: t-criterion concerning previous knowledge before the programme and the factors of the questionnaire

<table>
<thead>
<tr>
<th>Previous knowledge before the programme</th>
<th>Mean&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills and usage of ICT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not at all or a little</td>
<td>2.67</td>
<td>.89</td>
<td>-6.234</td>
<td>160</td>
<td>.000</td>
</tr>
<tr>
<td>Enough to very much</td>
<td>3.45</td>
<td>.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Usage of teaching methods and techniques</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not at all or a little</td>
<td>2.64</td>
<td>.61</td>
<td>-1.832</td>
<td>158</td>
<td>.069</td>
</tr>
<tr>
<td>Enough to very much</td>
<td>2.80</td>
<td>.56</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organisational satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not at all or a little</td>
<td>2.33</td>
<td>.62</td>
<td>-2.403</td>
<td>159</td>
<td>.017</td>
</tr>
</tbody>
</table>

143
In addition, in order to investigate the correlation among the factors of our research and those of the working years and the years past the date of holding the BA titles, the indexes of consistency Pearson r among the variables were calculated (Table 4). The first analysis of these data indicated that there was a consistency among the factors reaching the level p<0.001 concerning the statistic significance: ‘Working years’ – ‘Skills and usage of the ICT’, ‘Working years’ – ‘Organisational satisfaction’, ‘Years past the date of holding the BA titles’ – ‘Skills and usage of the ICT’, ‘Years past the date of holding the BA titles’ – ‘Organisational satisfaction’. If we examine thoroughly the above data, we could claim that the factors ‘Years past the date of holding the BA titles’ and ‘Working years’ tend to influence negatively the teachers’ opinions concerning training in ICT and to what extent it helped them to further develop their skills related to these, as well as for their use in the configuration of the appropriate learning process. Additionally, the correlation of the factors ‘Working years’ and ‘Years past the date of holding the BA titles’ with the organisation of their programmes was negative. The more working experience in years a teacher had and years past the date of holding his/her BA title, the more negative his/her attitude towards the usefulness and the organisation of ICT programmes was. Finally, ‘the skills and the usage of ICT’ were positively related to the methods and the techniques used in ICT programmes, as well as to their organizational structure.

Table 4 Pearson r concerning ‘Working years’ and ‘BA titles’

<table>
<thead>
<tr>
<th></th>
<th>Skills and usage of ICT</th>
<th>Usage of teaching methods and techniques</th>
<th>Organizational satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usage of methods and techniques in training programmes</td>
<td>0.324**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organisational satisfaction</td>
<td></td>
<td>0.483**</td>
<td></td>
</tr>
<tr>
<td>Years past the date of holding his/her BA title</td>
<td>-0.310**</td>
<td>-0.085</td>
<td>-0.249**</td>
</tr>
<tr>
<td>Working years</td>
<td>-0.330**</td>
<td>-0.131</td>
<td>-0.206**</td>
</tr>
</tbody>
</table>

** p<.001

Discussion

By taking into account the findings of this research, it was revealed that the teachers did not express an absolutely positive opinion concerning the ICT training in which they had participated. Teachers improved their skills sufficiently, but they pointed out the existence of a
significant deficiency concerning both the effectiveness and the arrangement of ICT programmes. Teachers stressed the fact that the educators-trainers in ICT programmes did not manage to use the teaching methods and techniques in an effective way and according to the trainees’ needs. Similar findings were presented in the research conducted by Politis, Karamanis, Roussos and Tsaousis (2000). One of the most influential prerequisites of adult learning is the perfect organisation of each training programme (Kokkos, 2005). The appropriate planning, the proper organisation and the functional conduct of training in the ICT support its introduction in education. In addition, it improves the teachers’ attitude and increases the motives (Teo, 2006; Blumenfeld et al., 2006; Albirini, 2006), provides knowledge and skills (Pelgruin, 2001) and develops the teachers’ self-confidence (Lukas, 2005). Kiridis et al. (2006) mentioned that the application and the organisation of training in Greece during the previous years were not the ones that should be. This resulted in the minimal or inconsiderable integration of ICT in education (Kokkinopoulos, 2006; Karakasidis, 2005; Malama, 2005; Paraskeva, Bouta & Papagianni, 2008; Tzimopoulos, 2003; Zagouras, 2005). The insufficient education is connected to the application of ICT in education and the teachers’ resistance concerning ICT application in education (Becta, 2004; Pelgrum, 2001; Shoepp, 2005). Apart from the aforementioned bibliographical references obstacles come up in the integration of ICT, such as the object approach of ICT with a technical way (Morueta, Gado & Gomez, 2010; Kokkinopoulos, 2006; Tzimopoulos, 2003), the inadequate support by the administrative personnel (school advisor, director of education etc.) (Becta, 2004; Tondeur, Van Keer, Vanbraak, Valcke, 2008), to a great extent the problems concerning both the connection with the internet and the software and hardware renewal (Pelgrum, 2001; Tondeur, Valcke & van Braak, 2008) and the uneven trainees’ level resulting in the beginners’ difficulty to assimilate the material and in the advanced ones to gain minimal knowledge benefits (Kokkinopoulos, 2006; Karakasidis, 2005; Malama, 2005; Tzimopoulos, 2003; Zagouras, 2005).

Although the teachers in our research, generally, believed that they had developed their skills in ICT adequately, the teachers who had never attended TPLD or had not had any ICT knowledge before attending that programme believed less firmly that training in ICT had helped them to further develop the skills concerning these technologies. In addition, the organisation of the programme had satisfied them less than all the other factors. Similar findings were expressed in the researches conducted by Zagouras (2005) and Malama (2005). The previous experience concerning the learning subject constituted an influential factor for the configuration of contemporary knowledge (Feldman, 2010). At the same time, the generally expressed low satisfaction on the part of those teachers who did not have any previous knowledge before attending that particular training program appears to be influenced even by the fact that those programs were not properly planned and in fact they did not really take into account the trainees’ real educational needs (Barton & Haydn, 2006; Pavlou & Vryonides, 2009).

As far as teachers with a few working years experience and those with fewer years past the date of holding their BA title are concerned, they believed more firmly than the others that training in ICT helped in their skills’ development concerning their Informatics’ literacy, as well as that they used these technologies to a great extent for the configuration of the appropriate learning process. On the other hand, the younger teachers both concerning their basic
university studies and the frame in which they socialized (society of information, introduction of ICT in education etc.), came into contact with modern cognitive tools as the means of their developmental environment and expressed a greater suppleness concerning their way of management and comprehension (Tondeur, Valcke et al., 2008). Simultaneously, the older teachers had already structured cognitive schemes based on former social patterns, while it was difficult for them to alter their teaching practices to established learning standards (Pavlou & Vryonides, 2009).

Conclusion

The need for the teachers’ continuous education is essential for the globalisationalised and alternating post-modern environment. The continual and rapid development in sciences and technology constitute prominent factors of the contemporary need for continuous education or training concerning all working people. The educational process and the human force that is straightforwardly connected to it cannot be an exception against this rule. ICT constitutes a dimension of crucial importance on which teachers’ professional development in the society of information can be structured.

According to the opinions expressed by the teachers who participated in this particular research it was depicted that these programmes had positive effects but unfortunately, not to the extent expected by the educational community. The teachers improved their skills sufficiently, whereas there was only partial satisfaction form the trainers’ methods in the programmes, as well as a lower satisfaction concerning the organisational structure of those programmes. Furthermore, younger teachers and those that had experience in the use of ICT or had previously had a training of long duration appeared to have a more positive attitude towards the growth of skills and the use of ICT, as well as the organisation of training.

Based on the findings of this research it is essential that we take into serious account the principles of Adult Education during the planning of the training programmes. In addition, it is of crucial importance to hire trainers with increased qualifications in Adult Education, to reorganize the training curriculum so that there is a balance between the material and the time duration of the programme, to create classes with homogeneous knowledge level concerning ICT and finally to provide trainees with the opportunity for further practical exercise under a supervision of a trainer. Also, it is important to be changes in infrastructure of ICT network in schools, in culture of teachers, in curricula and to be created a counseling institution to support teachers for the integration of ICT in schools.

References


