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## TEACHER TRAINING IN THE APPLICATION OF ICT IN TEACHING - THE EXAMPLE OF GREECE

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**Abstract:** *The main characteristics of information and communication technologies are: flow of information, connections without borders and time (simultaneity), reduction of costs and increase of benefits. That is why in developed countries, the inclusion of information and communication technologies in the education system is of the utmost importance. The term ICT refers to: computers, computer networks and multimedia (which usually mean a combination of text, audio and video). The use of term is herewith present in the broadest sense. The notion of education, however, is limited to primary and secondary education, as understood in Greece.*

*New technologies encourage students to move from passive listening to actively seeking and connecting information, and also bring school events closer to the outside world. However, the mere presence of ICT is far from sufficient. Many schools are already very well equipped with ICT, but this does not have a significant impact on learning methods, which are still mostly traditional.*

*The author is of the opinion that the main problem is the type of education and technical support in the use of ICT which the existing school system offers teachers and professors. In Greece, there is no systematic approach to training educators to use ICT, although they are expected to use it effectively in teaching. Furthermore, the technical equipment varies from school to school, some have computers connected to the network, and others have only computers in computer classrooms online. Some schools have control over the computer network, others do not. It could be said that the system is far from being standardized.*

*The hypothesis advocated in the paper is that information and communication technologies are not used enough in education in Greece and that the reason is the lack of knowledge of educators on the use of ICT, limited access to knowledge and very little technical support in using ICT.*

*The aim of the paper is to present a case study of teacher training in the application of ICT in Greece through training programs and a review of the work of training support centers.*

*The paper also presents new training for two levels of knowledge and skills for ICT, as well as training for PAKE instructors.*

**Key words:** *ICT training, information literacy, lack of knowledge, training programs, Greece*

## INTRODUCTION

Professional development is necessary for reasons of quality improvement in teachers and thus it must reflect the features of effective teaching (Girvan, Conneely& Tangney, 2016). However, teachers often acknowledge that the professional development received is insufficient for their regular work and their skills improvement. Kennedy (2016) supports that most programs of professional development are ineffective due to lack of teachers' motives and to failure of examining the degree of teachers' change. During the examination of professional learning in education Albion et al (2016) state that in the current situation, professional learning is incorrectly understood.

Traditionally, the programs of professional development are deeply rooted in the educational model with prevailing labs and working models (Vangrieken et al., 2017). The existing educational model allows school units to face teachers as employees with little interaction to each other in order to implement a change (Willemse et al., 2015). Vangrieken et al. (2017) insist on changing the traditional models of professional development by changing outdated ways of learning and giving teachers more responsibility in their learning.

According to Darling-Hammond, Hylér and Gardner (2017), teachers should learn by experiencing and seeing the relationship between acquiring new knowledge and applying it. Therefore, an effective professional development should take into account the theoretical framework on Adult Education based on the teachers' experiences in order to bring the delivery of learning into an authentic reality.

Korthagen (2017) highlights that the effective professional development is an educative experience adding knowledge and educational practices in the repertoire of teachers while at the same time motivates and inspires them to promote students' learning. Koh, Chai and Lim (2017) indicate that effective professional development allows for an overcome of the theories of learning in favour to a more applicable approach, in order to achieve their goals and cooperate with other teachers to promote learning and best practices. Moreover, reaserch shows that, in order to learn, teachers must doubt their existing knowledge, study and reflect on their teaching practices, by receiving at the same time a higher quality of teaching and participation (Koh, Chai & Lim, 2017). Finally, professional development that includes teachers in a constructive learning model results in trainers who can improve their practice and affect students' learning (Korthagen, 2017).

## 1. HISTORICAL REVIEW OF TEACHER TRAINING IN ICT APPLICATION

Since introducing Informatics in the educational system we have faced the issue of training the personnel for the teaching of a subject. This training at first originated in Academic Teachers' Associations such as the Greek Maths Society, The Union of Greek Scientists, the Technological Institute of Athens and other institutions because there were no systematically organized training seminars from the ministry of Education.

Up to 2002 there had been certain actions towards the integration of ICT in the educational system, but those were considered limited and inadequate as a whole. More specifically, these actions were related to:

- a. The PEK-RTC (Regional Training Centers). Until 2002 the RTC were the main operator of teacher training in ICT with short training courses. These RTC courses were particularly popular with teachers; naturally, most of them involved familiarization with ICT and not its integration into the educational process.
- b. Mobility Training Courses and SEPPE/SEEPa (Schools of Experimental Educational Programs Application). These programs were implemented in secondary schools, within the framework of EPEAEK/ OPEPVT (Operational Program "Education and Primary Vocational Training") and referred to New Technologies (ICT). In fact they were used as a training means, yet, most of them were isolated and fragmentary.
- c. The work of Action "ODYSSEY"<sup>1</sup>. Action "ODYSSEY" (1996-2002) was part of the Operational Program "Education and Primary Vocational Training" of the Ministry of Education aiming to integrate ICT in the educational reality for the compound of the subjects of the official curriculum; it is an example of an integrated model, since Informatics is no longer a separate subject but spans through all school subjects. In addition to developing infrastructure in schools and adapting the educational software, there was a series of Actions related to training courses and teachers' support with a view to apply technologies in the educational practice (ODYSSEAS, THE ISLAND OF FAIAKES, LAERTIS, E42).

These works-actions were about integrating technologies in the main daily school activity of 385 schools of formal education on the whole of the subjects defined by the official curriculum of the Ministry Of Education. This integration was achieved through training and support of all teacher specialties, through the creation of suitable infrastructure and appropriate teaching material.

ODYSSEY training was in-service, adapted to the needs of each school, systematic, consistent and oriented towards educational practice. It aimed to all teachers and combined:

- features on educational use of ICT
- features on teaching methodology for the use of ICT
- technical training on the use of specialized software
- teaching methods in class with the ODYSSEY lab

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1 <http://odysseia.cti.gr/> (18/05/2021)

The teacher not only applies the analytical work but promotes and creates the proper climate for the use of technologies in the classroom.

The main objectives of the action were:

- To promote in-school training to teachers of 300 out of 385 schools participating in ODYSSEY to the direct use of computers as a teaching and learning means. The rest of the schools (85) were small, remote units (69) and primary schools (16), as pilot schools.
- To support teachers in the use of computational and network services for the creation of an active learning background.
- To contribute to the teachers' professional development and their motivation for active participation in the training process.
- To establish a consistent and ongoing training in workplace settings, supported by properly trained trainers who, alongside their teaching work act as multipliers of their colleagues' training.

The topic of each training session comprised either horizontal training (basic steps of computer function and operation, general pedagogical directions on implementing ICT in the classroom) or vertical ones, i.e., more specialized training per specialty. The sessions were implemented within or out of school time, based on the needs of each school. Each session had a 3-hour duration and the training of teachers lasted all school year with a view to 'life-long learning; for teachers in the pedagogical use of ICT and the exploration of the full potential of school IT labs.

In order to respond to the needs of in-school training, the trainers attended the program E42 "Master in Education on the Pedagogical Use of ICT and Network in Secondary Education". Within this program 125 teachers were trained as trainers in modern Training premises at the University of Athens, The Aristotle University of Thessaloniki and The University of Macedonia, with the aim of further training the nearly 5500 teachers of all specialties of the ODYSSEY schools.

More over with in the ODYSSEY framework, 85 schools were included, from which 69 small and remote ones and 16 primary schools that, as pilot schools, followed a different type of training. The project 'Tilemahos 2' included teacher training, supplying, setup, support and operation of computing and networking equipment in 69 small and remote school units of Secondary Education, ensuring internet connection even in areas without internet providers. The project 'The Island of Faiakes - To Nissi ton Faiakon' aimed at : a) the pilot application of computing and internet technologies in 14 primary schools which were equipped with computer labs and internet and, b) the in-school training of teachers on technical and pedagogical topics. At the same time, teaching software was developed for in-school educational activities.

To sum up, it can be claimed that within the 'ODYSSEY' framework, during the seven years 1996-2002 the most important use of ICT was implemented, both in small and middle scale, as a benchmark for a teaching tool and a means of teacher training in Greek education.

## 2. THE TRAINING SUPPORT CENTRES (TSC- KSE)

From 2002 and on the training of teachers on ICT acquires a more broad and full form with the operational programs of 'Information Society – IS' (2002 - 2006) and 'Education and Primary Vocational Training' - EPEAEK/ OPEPVT (Operational Program“ II) (2006 – 2008).

The training programs are, until to day, implemented in the Training Support Centers (TSC- KSE) which have the necessary computing and internet equipment. The TSC- KSE are mainly school units which have been invited to the call to be included in the list and the relevant registry. In these approved centers trainers from the Trainers Registry teach after having been properly trained in University Training Centers (UTC – PAKE).

The training material put to use for the training of trainers in UTC – PAKE and the training of teachers in TSC- KSE was originally created and updated with a view to the Analytical School Curriculum. It has two parts, the general and the specific part and it was edited by the Academics: Vassilios Dadgadelis, Charalambos Zagouras, Vassilios Komis, Dimitrios Koutsoyiannis, Chronis Kinigos and Dimoitrios Psyllos.

### 2.1. The Training

The need for upgrading and strengthening the teachers' knowledge originated from the introduction of IT in the educational process. At the same time, one of the main factors that affect negatively the use of ICT in education is the poor training of teachers. The role of a teachers is upgraded and redefined within ICT, as he is given the opportunity to become a real mentor in the search, edit and production of knowledge. Qualitative education is effective with the creative use of IT and the Internet in their pedagogical dimension. Flexibility in time, place, mode and interaction of trainer-trainee is an advantage that makes it particularly functional and effective. In this way, they are given chances for the renewal of qualifications, knowledge, abilities and skills to adapt to the needs of modern society (Pappas, 2020).

In Greece, this need was originally approached with the training of teachers in basic ICT skills during 2000-2004, widely known as 'Training on CTI – Level A' and then training in the use and application of ICT in the teaching process, known as 'Training on CTI – Level B'.

The project Training teachers on the Use and Application of ICT in the teaching Process - Training on CTI – Level B' is the development and evolution of Training on CTI – Level B, which it updates, upgrades and strengthens in relation to the content and it expands on all specialties<sup>2</sup>.

The new training applies to two levels of knowledge and skills:

- a) Initial Training on educational Use of ICT (B1 Level, 36 training hours)
- b) Advanced Training on the Use of ICT in the Teaching Process (B2 Level, 42 hours and actions of 'classroom application'.

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2 <http://e-pimorfosi.cti.gr/to-ergo/gia-tin-epimorfosi> (18/05/2021)

The training addresses all teachers of all specialties in Primary and Secondary Education.

The programs are implemented all over Greece in Training Support Centers (TSC-KSE) Level B and are composed of teachers of similar specialties. In order to cater for special training needs, such as remote areas, there is a view to implement part of the training programs of B2 ICT by blended learning. The training material is a revised and enriched edition of the material used in the previous relevant action (Δαγδιλέλης κ.ά., 2011).

In the new action, four clusters of similar specialties are envisioned; thus, the implementation of four specific courses per level of training, whereas for the level B2, given the specialization and focus on specific topics of knowledge, more clusters (12-13) and equally specific courses are designed.

The sessions are implemented out-of-service, in teams of 10-15 people, 3-hour sessions, once a week, from Trainers of the ICT B Level Trainers Registry, with a part of the program aiming at blended learning, due to special training needs.

## **2.2. Training the Trainers in UTC – PAKE<sup>3</sup>**

In order to cater for the needs of this training in relation to the introduction of new teacher specialties and to the coverage of a broader geographical range, there is a design for training 300 new trainers so that the Trainers Registry is more complete. Training is implemented in UTC – PAKE with open calls. Blended learning is the norm, with live and distant learning sessions, and distant learning actions.

The candidate trainers should come from a background of high qualifications and knowledge in the educational use of ICT. Their training program is due to have a duration of 6 months, 350 teaching hours per trainee trainer and in clusters of one or more similar specialties. The general part of the course caters for all specialties and for the basic principles of pedagogical use of ICT and the Internet, the methodology of Adult Learning, the methodology of blended learning, the pedagogical use of general tools and services web 2.0., the functional features of interactive teaching systems, subjects of educational software and multimedia, the development of micro-apps, the educational platforms and the inventories of educational material and features of technical support of school labs. The specific part caters for the teaching of the subjects for each specialty and the design of educational activities software for teaching these subjects.

The methodology of the training of trainers includes a trainee session as an organic part of the educational process. It is implemented in parallel with the UTC – PAKE training and includes activities such as teaching in schools with ICT or observation/ teaching in TSC- KSE. After the successful implementation of their training, they will participate in the process of Accreditation for the ICT B Level Trainers Registry.

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3 <http://e-pimorfosi.cti.gr/toergo/epimorfotes-pake> (18/05/2021)

### 3. THE A LEVEL TRAINING

In 2004-2005 teacher training started in the basic use and skills for ICT in education (A level training). The course was 48 hours, 42 of which on general knowledge such as introduction to informatics and learning the basic features in the use of computers. The rest of the hours were used in learning the basics on the use of ICT in the educational process (<http://www.pi-schools.gr/programs/ktp/epeaek/ergo.html>) (30/05/2021).

120000 teachers in total participated in the training, 83000 of them approximately were certified in special Certification Centers(KE.PIS).

The project ‘Teacher Training in the Basic Skills of ICT in Primary and Secondary Education’ was integrated in the 3<sup>rd</sup> Community Support Framework and the Operational Program of the Ministry of Education and was co-funded by the E.U. and by National Funds. It was implemented during 2001-2005 and has represented a first attempt to train the teachers in the use of ICT (Pappas, 2020).

It referred to the acquisition of basic knowledge in the use of ICT in Education. Specifically it covered introductory concepts of informatics and basic use of computers, Word, Excel and network. Moreover, the project related to the acquisition of basic knowledge of using educational software. Teachers in Primary and Secondary Education, as well as Headmasters and Administrative staff were allowed to participate.

The process of certification of the teachers’ skills and knowledge in Information and Communication took place in Certification Centers (KE.PIS), fully equipped University and Technological Institute labs registered in the KE.PIS Registry. Each teacher could participate to the exams by filling in an online form in the platform of the project

(<http://b-epipedo2.cti.gr/mis>), choosing the centre and the date convenient to them to be certified. Each teacher had three chances in the certification exams. The certification processes were implemented - at intervals in the framework of the Act ‘Teacher Training in the Use and Application of ICT in the Teaching Process’ of the Educational Program ‘Lifelong Learning and Training’ of NSRF(2007- 2013). The last period of certification was in February- April 2015.

### 4. THE B LEVEL TRAINING

The Act ‘Teacher Training in the Use and Application of ICT in the Teaching Process’ of the Educational Program ‘Lifelong Learning and Training’ of NSRF (2007-2013), which was implemented with the co-funding of the E.U. and the Greek Public Sector aimed at training a large number of teachers of the Greek schools of Primary and Secondary Education in the teaching use of ICT in classroom. It is an integrated training program, it continues and develops the first act and it started in the Training Support Centers (TSC-KSE) and the University Training Centers (UTC – PAKE).

The same program continued in the framework of the Operational Programme “Development of Human Resource, Life long Learning and Training”, of NSRF (2014-2020),

with the co-funding of the E.U. and the Greek Public Sector, entitled 'Training teachers on the Use and Application of ICT in the teaching Process - Training on CTI – Level B' and with final beneficiary the Computer Technology Institute and Press (CTI) – 'Diofandos'.

The training courses were implemented exclusively in specially equipped centers all over the country: Training Support Centers (TSC- KSE), usually schools, by specialized trainers of level B trained in universities and University Training Centres (UTC – PAKE) during specific training periods. The course was in groups of 10-15 people, had duration of 96 hours – 6 hours per week. The sessions were off school time, not impeding the operation of schools. The aim was to train 27500 teachers, whereas 400 teachers – and Teacher Counselors among them- were trained as trainers in University Training Centers (the author was one of them).

The training programs were strengthened with the application of the content of B Level training in the classroom by trainees as an integral part of the process, supported by trainers and the support infrastructure.

Teachers of all specialties participated in the B Level training, officials of public and private schools; with the exception of the teachers of Informatics (ID19-20), the rest of the specialties had to be certified in the A Level training prior to their participation in the B level training.

The aim of the project is:

- The evolution of B level training related to:
- the up date and strengthening of the training content, in accordance with the current pedagogical and technological developments, taking into account the experience so far and the results of the previous action,
- extending the training to all specialties in primary and Secondary education, which means developing a series of infrastructure and human resource to support it (content and training material, trainers, support systems, etc), resulting in the radical increase of the number of potential trainees,
- the development and implementation of the training in two levels of knowledge and skills: a) introductory Training in the educational use of ICT (B1 level of ICT) and b) Advanced training and application of ICT in the teaching process (B2 level of ICT), the combination of which should lead to the acquisition of knowledge and skills for an integrated training (B Level Training in ICT).
- Training 300 new B level trainers who would complete and strengthen geographically and specially the existing Registry of B Level trainers; they would be properly accredited to take over the training together with the existing trainers.
- The certification of the aforementioned teachers in the relevant knowledge and skills of ICT and additionally the certification processes in A level, as it is a pre requisite for participating in level B.
- The development–adaptation–operation of infrastructure, scientificand technological tools, systems and mechanisms to implementand support the individual actions of the project.
- Complementary horizontal support so the Act, such as diffusion processes, procurement of equipment, copying training material, etc.

The **objectives** of B level training were for the trainees to:

- Understand the rules and potential of the pedagogical use of ICT in education for the upgrade and reform of the teaching and learning process and the achievement of goals set by the Curriculum
- be able to use effectively the possibilities offered by ICT in the active participation of teachers and students in learning communities
- acquire an over all over sight on the existing teaching software, the existing general and special tools, as well as on the Internet and its safer use, in particular tools and services of Web 2.0 (blogs, wikis, podcasts, social networks etc), Learning Management Systems, of distance learning, online educational platforms, etc.
- be able to use educational material or tools appropriate to their specialty as mentioned above
- comprehend the necessity and the role of the educational process in the use of ICT in class
- understand the principles of designing an educational activity in order to integrate it in the classroom
- be able to use the Interactive Board of their classroom in the educational process
- know the basics of managing and organizing the use of ICT in classroom
- develop the skill of communication and cooperation both with students and their colleagues with the help of Web 2.0. technology
- To achieve the above, the infra structure and scientific tools from the previous action are put to use and the Registries of Trainers B Level of Training Support Centers (TSC- KSE) and Certification Centers (KE.PIS) are updated.

## 5. B1 LEVEL TRAINING IN ICT<sup>4</sup>

The B1 and B2 Training in ICT replaced the B Level in ICT and are addressed to teachers of all specialties in Primary and Secondary Education. It is implemented in two phases – levels: Introductory and Advanced training. The combination of both leads to the acquisition of knowledge and skills for an integrated use of ICT in the classroom.

**B1** training is addressed to permanent and temporary teaching staff in the primary and secondary education of all specialties. Certification in the basic skills of ICT is required. The aim of the training is the acquisition of knowledge and skills on the use and application in classroom of new digital infrastructure developed in schools through the actions and programs of the Ministry of Education and of modern tools of general use and of network through models and best practices.

According to the regulatory framework for implementation and participation to the program (CTI, 2017), the object of B1 training in ICT - as an introductory training in topics of educational use of ICT- is to acquire knowledge and skills for the use in classroom:

- a) of new digital infrastructure developed in schools through the actions and programs of the Ministry of Education, as for example the interactive teaching systems, in

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4 <http://e-pimorfosi.cti.gr/to-ergo/gia-to-b1> (18/05/2021)

combination with the educational platforms and the depositories of collection and availability of free digital material, as well as  
b) modern tools of general use and of network (including safety in the internet), through models and practices embracing all the above.

The **objectives of this training** are for the trainees to:

- get to know the features, operation and ways of the effective use of the interactive teaching systems in the educational process,
- be able to put to educational use the possibilities offered by the educational platforms and the depositories of collection and availability of digital material,
- acquire an overall oversight on the modern tools of general use, the internet and its new dimensions, as well as to become aware of the safe use of it,
- understand the regulations and potential of the use of digital technologies in school for the upgrade of the educational process.

The program of the training is 36 teaching hours and lasts for approximately 12 weeks (3 hours per week). In between the sessions the trainees implement short projects assigned by their trainer. The training material is available on a Moodle platform, which is also used for the trainees' educational activities and for communication with the trainer.

In the Moodle platform the entire material of the course is divided into 12 sessions; each session includes space for supportive chat, both oral and in modern script, the teaching and support material, the activities material, instructions for the trainees and space for sending files of distance learning activities (CTI, 2017).

More specifically, the topic of the first session is the Introduction to the Educational Use of ICT where the objectives and the form of operation of the Training program B1 are analysed. The second session attempts to categorize the digital educational backgrounds and familiarizes with the depository platform Moodle within the training framework. The third session refers to the presentation software, the interactive boards and books and suggests ways of putting them to use to develop the learning process and social interaction. The fourth session aims at presenting the possibilities of the teaching use of interactive boards and books. The fifth session introduces the educational use of general use tools (excel) and blogs.

From the sixth session and on, there is an attempt to research learning scenarios and courses from the educational depositories Fotodentro and Ifigeneia, as well as to create micro-courses integrated in the learning act. The seventh session takes on the design of educational micro-courses, the critical feedback and the exchange of best practices among teachers of secondary education. The next session refers to the teaching use of conceptual maps and familiarization with wikis. The ninth session connects to the B2 level of ICT; it introduces different options of teaching use of various applications such as simulation software and sound and video editing software. In the tenth session the trainees create an integral teaching micro-course from a ready course they find in the depositories. The eleventh session refers to issues of safe use of internet and in the last session the trainees create their own original micro-courses. Their projects are sent to the specially allocated room of files designed for the training and are assessed by their trainers (CTI, 2017).

The programs of B1 level of ICT are manned by teachers of relevant specialties and are implemented by B level trainers in Training Support Centres (TSC- KSE).

## 6. B2 LEVEL TRAINING<sup>5</sup>

B2 level training in ICT is an advanced training in the use and application of ICT in the teaching process and aims at teachers of all specialties in Primary and Secondary Education.

These programs include the 'use in classroom' as a key piece of the training process, i.e., application of the knowledge as skills acquired by the trainees in their school classrooms, by incorporating digital technologies into their own teaching practice with the prior support and guidance of their trainers.

In order to cater for this obligation of 'use in the classroom', participation in B2 level training is offered to those trainees who, during their training, are active teachers in schools and classrooms.

Moreover, a prerequisite to participate in an advanced B2 level Training Program on ICT is the prior successful participation to the introductory Training B1 level and the certification in relevant skills and knowledge.

According to the regulatory framework for implementation and participation to the program (CTI, 2020), the object of Advanced training in ICT, B2 level is:

- a) acquisition of knowledge, skills and qualifications in the educational use of web 2.0. environments and the network in general on their specialty, combined with the use of various digital sources and means with an emphasis to those available in the Ministry of Education,
- b) acquisition of knowledge on designing and using educational sources, software and environments of various types on their specialty, conditions, potential and limitations of teaching their specialty, combined with the necessary reorganization of the school classroom to achieve the best educational result aimed at the added pedagogical value,
- c) familiarization with the elements of digital systems related to their specialty and their interactions, so as to integrate their teaching into a broader reference framework and be able to critically and productively face up the new learning tools and the rapid technological changes in the technology of information and communication as incorporated in the educational system or in the everyday practice.

The *objectives* of B2 level training are for the trainees to:

- understand the educational possibilities opened to their specialty by the new digital environments on the Internet (web 2.0, special digital environments and digital resources) and integrate them critically in their everyday teaching routine in combination with the resources and means already produced by the Ministry of Education (e.g., Fotodentro, enriched digital material)

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5 <http://e-pimorfosi.cti.gr/to-ergo/gia-to-b2> (18/05/2021)

- understand the principles of designing an educational activity on their specialty (i.e. scenario) so as to be able to design activities themselves and at the same time integrate activities in the teaching process
- to familiarize with and use productively the software and environments available and suitable to their specialty (e.g. software on communication, presentation, simulation and dynamic management, collaborative software and tools for sharing resources, social digital resources, online communities, interactive maps, animations, open software, corpora, etc.), realizing the potential as well as the limitations of their use
- be able to manage the classroom in such ways as to match the current teaching, treating them as demands of parts of their specialty and to integrate the new digital technologies in the teaching process in the most productive way
- to get an overall and functional awareness of the general framework of the new technologies in order to have a full picture of the digital resources and technologies used in teaching their specialty and be able to integrate the modern technological tools in this framework.

The B2 training programs in ICT are grouped in the same or similar specialties, in groups of 10-15 teachers and are taught by B level trainers, off school time, with the use and infrastructure of Training Support Centres (TSC- KSE) in charge all over Greece.

‘Application in classroom’ aims, on the one hand at better assimilation of knowledge and skills acquired by trainees, as getting experience by practice in classroom provides feedback and makes training more effective, on the other at direct and massive transfer of results of the training process to the final beneficiaries, the students. In this phase of the program, the trainers will have an active supportive and guiding role on the trainees and with their know-how they will contribute to the proper choice or implementation of activities in ICT, to their more effective application in the classroom and to the timely response to any issues that may arise. (CTI, 2020)

The B2 level training in ICT is 42 hours with an additional 18 hours for supportive meetings on ‘application in classroom’ – that is, a total of 60 hours and lasts for about 12 weeks. In particular, the program includes 1 or 2 3-hour sessions per week where appropriate, and each 3-hour session corresponds either to a) an informative session, or b) a supportive meeting, or c) distance learning activities of relevant hours of learning/teaching work for the tasks, projects, study of material, guidance and feedback, etc., for the trainees and the trainers respectively.

The implementation of the programs is the exclusive responsibility of B Level Trainers in ICT in the respective specialties, according to the regulatory framework of B2 Training and the specific scientific directives of the Act.

The material for the B2 training in ICT is available via a platform of Moodle on educative content and online learning, which is also used for the projects and assignments of the trainees as well as for their intercommunication and the contact with the trainer.

The programs are implemented based on the blended learning model (programs type II), that is by combining remote online sessions/ meetings by a special platform for

direct online teaching and virtual classroom and asynchronous remote teaching which in cases may have a small number of face-to-face sessions in the TSC. Applying the blended model in B2 training was deemed necessary in order to have a national coverage as well as abroad for teachers of the Greek communities, regardless of the special geographical limitations (e.g. small islands, remote areas) and for all teacher specialties no matter how many in one area.

In particular, there is a provision for two variations of the training programs implementation (Program categories), applied according to the conditions of the geographical range of potential trainees and trainers per group:

**1. CATEGORY IIa:** Programs including a combination of a small number of live sessions, distance training sessions and support meetings via a special platform of online learning and virtual classroom management, and indirect online activities. In particular, each program of Category IIa includes:

- four(4) three-hour live sessions in two(2) weekends during the program, where the trainer and trainees meet at the TSCs
- five (5) three-hour direct online training sessions
- six (6) three-hour direct on line support meetings
- in direct distance learning activities of relevant hours of learning/teaching work for the tasks, study of material, guidance and feedback, etc., for the trainees and the trainers respectively, amounting to five (5) training three-hour sessions (that is, 15 training hours).

The programs of this category are exclusively for trainees near the TSCs of the region where their school is located and with trainers who reside in the same regions. In the exceptional case of a trainer of different region, there is an allowance for travel and accommodation to the TSC for the live sessions.

**2. CATEGORY IIb:** Programs including a combination of online distance training sessions and support meetings via a special platform of online learning and virtual classroom management, and indirect online activities. In particular, each program of Category IIb includes:

- nine (9) three-hour direct online training sessions
- six (6) three-hour direct online support meetings
- indirect distance learning activities of relevant hours of learning/teaching work for the tasks, study of material, guidance and feedback, etc., for the trainees and the trainers respectively, amounting to five (5) training three-hour sessions (that is, 15 training hours).

The programs in this category do not require localization in the region of the TSCs for trainees and trainers, as they are implemented exclusively by distant online learning (CTI, 2020)

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