
# *English Language Teacher Attitudes and Effective Management of Change in the Greek Digital School*

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Thesis submitted in partial fulfillment of the requirements for the MA in TESOL at UNIVERSITY OF NICOSIA, Department of Languages and Literature, Nicosia, Cyprus, **May, 2019**.

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**A Master's Thesis**

**In**

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**By**

Stamatia Savvani
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**"This Master's Thesis has been accepted in partial fulfillment of the requirements for the MA in TESOL at the University of Nicosia"**

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# PLAGIARISM DECLARATION FORM

## DEPARTMENT OF LANGUAGES AND LITERATURE
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# Acronyms

CALL: Computer Assisted Language

ELT: English Language Teaching

ESOL: English for Speakers of Other Languages

EYL: English for Young Learners

ICT: Information and Communication Technology

IFCL: Integrated Foreign Language Curriculum

LMS: Learning Management System

TELL: Technology Enhanced Language Learning

# Abstract

Information and Communication Technology has become an integral part of our daily and professional lives. Technology is gradually and steadily being introduced into state schools. Moreover, the newest educational policies and school curricula promote its use for all subjects, not just for the teaching of Information Technology. European Union policies have also shifted the interest of public education to the development of digital literacies and pluralism in language education (European Commission, 2018; European Union, n.d). As for the Greek context, the Digital School (n.d.) project was introduced in 2010 for primary and secondary public education, following in the footsteps of digitally mature European countries. Schools are being equipped with technology while digital resources have been created for state teachers of all subjects, including English. This study explores English language teachers' beliefs, practices and training regarding the integration of technology in state schools. It uses recent publications regarding the Digital School initiative and primary findings as a means of identifying the main issues relevant to the integration of technology for English Language Teaching. The findings show a tendency from educators to embrace technology and a certain optimism towards its applications in foreign language teaching. Nevertheless, concern is raised regarding the resources available, content- and technology-wise, and schools' technological infrastructure. Simultaneously, the need for lifelong training of educators on ICT and emergent technologies is underlined. Drawing from the analysis, suggestions for the management of change in the Greek Digital School are outlined. The research concludes on the feasibility of the suggestions in state school environments and highlights the need for continuous professional development opportunities for educators in order to generate and adopt optimal (digital) practices for ELT.

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# Chapter 1 Introduction

It is challenging to keep up with the changes in technology and their application in educational settings as its growth is rapid and the possibilities available are endless. Digital tools designed for English language teaching have advanced considerably in the past 30 years (Dudeney & Hockly, 2012), varying from CALL applications (computer-assisted language learning) and Web 2.0 tools to the most interactive and personalised Web 3.0 systems that blend the virtual and the real world, e.g. augmented reality, blended learning (Silva, Rahman & Saddik, 2008). Research results appertaining to the effectiveness of technology use in classrooms seem promisingly positive (Felix, 2005; Delgado et al., 2015) and in the years to come ICT applications will go beyond our current perception. European national educational policies therefore have not remained unaffected in light of such progress and aim to promote ICT integration in state school.

From this storm of innovations, the Greek state school context has chosen to follow suit and since 2010 the Digital School project is being implemented. This initiative aims to transform not only English language teaching, but primary and secondary education in Greece as a whole. The goal of the Digital School is to introduce ICT in state school classrooms, exploit it pedagogically and apply innovative teaching tools and methods that would create new prospects for Greek state education (Ministry of Education, 2014 03/10).

The Digital School is co-funded by the European Union and the Greek government. Despite its promising agenda, this project was introduced when Greece was hit by the economic crisis and since then the governmental funds allocated to the educational sector continue to drop (Hellenic Statistic Authority, 2019). These funds are necessary for the successful implementation of the Digital School programme. Schools need to be equipped with contemporary technological tools or upgrade their existing equipment to facilitate the digital innovations. According to a recent report by the Foundation of Economic & Industrial Research (2019), even though the salaries of employees in the educational sector have significantly decreased, the government strives to allocate most of its budget to

reimburse personnel in education. Consequently, funds for infrastructure and other operational needs in education have been reduced even more. In addition to the fact that schools in Greece have different needs, unique facilities and varying student population, integrating ICT across the school curriculum has become a rather slow and challenging process.

Apart from the slow-moving technological upgrade of state schools, there are other factors that affect the adoption of such tools and their pedagogical implementation. In the Digital School the educators are expected to apply certain pedagogies that would solicit constructive technology enhanced learning. Employing technology without establishing it in sound pedagogies "may create an unnatural or unnecessary 'electronic go-between' in the dynamics of traditional teacher-student interaction" (Alexander, 2008, p. 1).

There are several issues that render the Greek Digital School initiative a demanding venture. School infrastructure, teacher preparation, training and attitudes towards ICT significantly influence the actual implementation of the programme. Hence, in this study these factors will be examined by narrowing the focus to ESOL teachers, their practices and attitudes to ICT. In the following section, the research approach and questions of this Thesis are described.

## 1.1 Research Aims and Objectives

This research follows an exploratory research design (Johnson & Christensen, 2008). The researcher starts making observations, classifies the data and identifies key themes or patterns. Finally, the researcher attempts to provide reasons and draw conclusions based on the patterns (ibid, 2008).

This research aims to analyze teacher attitudes towards technology and the Digital School resources that are specifically designed for the teaching of English in Greek classrooms. Further, this research will propose management of change regarding the Digital School based on primary and secondary findings. The research objectives are to:

- Identify and interpret teachers' practices and attitudes to the use of ICT and of the Digital School initiative in ELT classes of state schools.

- Analyse teachers' perceptions regarding the training they have received, or beliefs pertaining to the training they feel is required to use technology in ELT contexts.

## 1.2 Rationale of the research

The contribution of this research will be to offer insight into teachers' stance and training on using technology to enhance the English language teaching experience. This research is tied to the Greek reality and through the data analysis, the current barriers will be determined, and solutions will be proposed regarding the future of ICT in ELT state school contexts. This research will identify the main issues and propose management of change for optimal integration of technology in Greek ESOL classrooms.

## 1.3 Thesis Structure

The following Chapters are structured as follows:

Chapter 2 discusses the literature relevant to the topic of the Thesis. Findings from research on ICT integration in various state school European contexts are presented. Teacher factors that impact technology inclusion in education are discussed by drawing from research in the Greek reality. Finally, current developments in the ELT curricula of Greek state schools are presented by focusing mainly on the Digital School initiative.

Chapter 3 presents the research methodology followed in this study. The rationale for adopting a mixed methods approach and the research instruments employed are described. Analysis of the data and ethical consideration are also mentioned.

Chapter 4 reports the empirical findings of the study. Data collected from questionnaires are classified and are then refined by the interview data. Based on the findings, suggestions for the management of change are made to enable ICT inclusion in ELT.

Chapter 5 provides an overview of this Thesis. The limitations of the research are mentioned and possibilities for future work are discussed. Finally, the implications of this study for ICT training programmes in Greece are laid out.

# Chapter 2 Literature Review

In this section, top-down national policies about ICT cross-curriculum inclusion in school education in Europe are visited and the results of their implementation are discussed. Further, recent curricula changes and the Digital School initiative in state schools in Greece are analytically described in relation to the teaching of English. Major factors, such as teacher attitudes to ICT and training in ICT, which can impact technological integration in schools are examined with a focus on the local Greek context. The literature review intends to pinpoint potential issues faced by ICT integration at state schools, while examining more closely the situation in the Greek ELT context.

## 2.1 Incorporation of ICT in school education

It is undeniable that technology is gaining traction in educational settings in Greece and other European countries (Abbasi et al., 2015). The European Commission's priorities regarding ICT use in Education are oriented towards: "1. Making better use of digital technology for teaching and learning; 2: Developing relevant digital competences and skills for the digital transformation; 3: Improving education through better data analysis and foresight" (European Commission, 2018, p.4). These priorities highlight the need to use technology meaningfully and the importance of developing both educators' and learners' digital skills.

Even though governments have developed national policies and plans to empower ICT integration in schools since 1990 (Pelgrum, 2001), there have been many obstacles in their successful implementation. Insufficient technological infrastructure in schools combined with lack of teacher training were identified as the major obstacles in integrating ICT in education across 26 countries in Pelgrum (2001). Lack of technical support, lack of time to properly integrate digital tools to language classrooms, and installation/maintenance technology costs have been pointed out in later studies as well (Bingimlas, 2009; Çelik & Aytin, 2014).

Some European countries even have compulsory technology integration targets in educational curricula. For instance, since 2004 the binding policy of the Flemish

government demands that "every child to be digitally literate when leaving compulsory education" (Vanderlinde, Van Braak, & Hermans, 2009, p. 576). The aim is not for learners only to acquire technical skills but also provide learning opportunities by integrating ICT. However, primary school teachers seem to have moderate awareness of these goals, despite their compulsory nature (Vanderlinde, & van Braak, 2011). The need for an established local school vision is highlighted and the roles of school leaders and teachers are crucial to the implementation of the new curricula (ibid, 2011).

Another example of ICT integration in state schools is that of Norway and its new educational reform, *The Knowledge Promotion*, in which digital literacy is listed as a mandatory competence in all subjects (Krumsvik, 2006). Despite the good technological infrastructure of Norwegian state schools and compulsory governmental policies, ICT pedagogy does not seem to be integrated practically in the school curricula (Krumsvik, 2006). The government policies may be ambitious about an ICT vision, but teachers need to be prepared accordingly to employ meaningfully the digital tools in their classrooms (ibid, 2006). It becomes imperative that each school context establishes unique and local pedagogical and learning outcomes of ICT innovations for each subject taught.

Through these examples of ICT integration, it becomes evident that apart from personnel's training and institutional infrastructure, the educational goals (i.e. updated curricula and learning skills and objectives) should be determined before introducing digital tools (Becker et al., 2017). In a recent review of ICT-supported reforms in school curricula across 28 countries, it was shown that often the changes in the curricula impact the way instruction is delivered rather than the content and the learning goals (Voogt & Pelgrum, 2005). School culture and the vision of the school leaders is an important aspect of a healthy digital integration into classrooms (Tezci, 2011).

The local school vision and goals are even more important than the national policies as "ICT-based innovation can and does occur in classrooms and schools without there being a close linkage to national policy" (Kozma, 2008, p. 2). Bringing digital tools in state schools just for the sake of it can result in poorly delivered ICT integration and a waste of technological investment. On the one hand, assistance from the governments is imperative to fund the technological development of school facilities and to draw general guidelines

and recommendations. Nevertheless, it is up to the teachers themselves how the digital tools will be implemented in their classroom settings. For this reason, school-based curricula that meet the demands of the national-based ICT-related curricula must be implemented (Tondeur, Van Braak, & Valcke, 2007).

In research literature there is skepticism about the value of ICT in education (Warschauer, 2003) and caution that educational technology can be successful only if it is tied to specific objectives and sound pedagogies (Kadiyala & Crynes, 2000). Livingstone (2012) maintains that ICT is slowly being integrated in school environments, mainly because there is not strong evidence of the learning benefits of technology. It is difficult to identify the advantages of technology, especially when a wide variety of software and hardware can be related to the term ICT but are used for different purposes (ibid, 2012). For instance, whiteboard software has been found to capture students' attention; it is unclear, however, whether the means itself can engage pupils in active learning (Schmid 2008, 2010). Screens, applications, and other technologies may easily engage pupils, but do they assist in the learning process or are they solely alternative means of presenting educational content? It is difficult to judge whether a technology is good or bad; its value in education depends on the way it is employed. Results may vary across contexts; depending on the curricula objectives, there are several variables that can influence the effectiveness of Technology Enhanced Language Learning, and further research is required on this topic.

When technology is inserted in classrooms, it is crucial that the tools employed do not just enhance or provide alternatives to the traditional way (Voogt & Pelgrum, 2005). For instance, e-books replacing textbooks do not necessarily provide additional pedagogical value to the development of reading skills. Rather, e-books are an alternative format to a resource that already exists. However, in case additional tools are embedded into e-books, e.g. self-assessed activities, audio extracts or hyperlinks to media, this may provide extra practice to the learner and address skills other than reading, e.g. listening. Technology should ideally aim not only to enhance but also transform and redefine the learning goals and outcomes (Puentedura, 2010).

Looking into diverse ICT national policies, it can be argued that it is the teachers who actually determine the way ICT integration is implemented by following the influences and

expectations of their school context (Drent & Meelissen, 2008; Fu, 2013). The educators themselves decide on the learning outcomes and how technology will assist in achieving them. Taking the above into consideration, it is evident that governmental policies do not directly affect what happens in the classrooms. In the following section, recent educational policies concerning the teaching of English and use of ICT across school subjects will be described.

## 2.2 New educational policies in Greece

The New School, i.e. in Greek "Το Νέο Σχολείο" (New School, 21st century school, n.d.) was an initiative introduced to Greek state primary and secondary schools by the Ministry of Education that ran in pilot mode during school year 2011-2012. Its goal was to update the curriculum, introduce more student-centred methods and equip schools with technological hardware. Special attention was given to the learning of foreign languages and Information Technology. Although The New School remained in pilot mode, it acted as a springboard that brought new developments to the curriculum of state schools. These developments are still ongoing and relevant to the teaching of English and/or ICT integration, namely: a) the EYL (English for Young Learners, n.d.) programme, b) the IFCL (Integrated Foreign Language Curriculum, n.d.), and c) the Digital School (n.d.) initiative.

The EYL programme aims to introduce learners to two foreign languages from an early age. Thus, since 2012 the teaching of English as a foreign language commences at the first grade of primary school. This change is in line with the language learning goals as set by the European Commission that promote multilingualism (European Union, n.d.). According to Eurydice's latest Report on Teaching Languages at Schools in Europe (Eurydice, 2017), students have started learning English at a younger age at state schools while second foreign languages are taught in compulsory education (with choice of language) as well. Therefore, English is a mandatory subject in compulsory education in Greece and is taught one hour per week for the first two grades of primary schools and 3 hours per week for grades 3rd to 6th of primary schools. Despite the prominent role of English language teaching in primary education, the teaching hours of English in secondary education are limited to two hours per week.

The second change for the teaching of foreign languages was the introduction of the Integrated Foreign Language Curriculum (n.d.) in 2016. The overall aim of the IFLC is not to restrict educators to use certain resources and cover a specified syllabus. The IFCL puts emphasis on the learning outcomes and not what or how they will be taught (Filis, 2016). The new curriculum does not prescribe the vocabulary and grammar taught throughout the school year. Educators themselves are expected to draw on their own selection of syllabi and (digital) resources. Teachers of English are free to design their own syllabi and adopt the teaching methods that they feel are most suitable for their language context and class (Zeppos, 2016). Educators are advised to differentiate their instruction based on students' needs and skills and are encouraged to employ learner centredness in their teaching. Even though the IFCL gives leeway to teachers' methodology and choice of instructional materials, its successful implementation requires technology being available. According to the IFCL, it is imperative that all school units are supplied with ICT tools and resources, i.e. computers in state school classrooms with access to the internet, projectors and interactive whiteboards (Zeppos, 2016).

The aforementioned educational changes signal the emphasis on developing plurilingualism and the integration of technology in state schools. Nevertheless, "the fact remains that Greek families, especially of lower socioeconomic status, invest heavily in out-of-school development of these literacies" (Mitsikopoulou, 2007, p. 243); literacies referring to English language learning and digital literacy are considered as literacies of power by parents in Greece (ibid, 2007). Their choice of additional private schooling indicates that the state school curriculum and its infrastructure have yet to be improved (Antoniadou, 2016). In the following section, the Digital School initiative will be thoroughly discussed alongside the digital resources for English teaching available to state schools.

### 2.2.1 The Digital School initiative

The most recent government educational policies in Greece immensely support student-centered pedagogies and utilisation of digital tools and resources in compulsory education (Sotiriou, 2012). To this end, the programme Digital School (n.d.), namely "Digital Educational Platform, Interactive books, and Repository of Learning Objects" commenced

in 2010 and is still implemented by the Institute of Computer Technology & Publications: Diofantos. According to Megalou and Kaklamanis (2014), one of the main intentions of the digital platforms and e-books designed as part of Digital School was to familiarise teachers with the new technologies.

At present, the project is running its second phase, Digital School II (n.d.), namely: "Expanding and Exploiting the Digital Educational Platform, Interactive Books and Repository of Learning Objects" and is co-funded by the European Union and the Greek Government as part of the Business Plan: "Human Resources Development, Education and Lifelong Learning" (European Commission, n.d.). A number of educational platforms were implemented by Diofantos and targeted to educators and learners in compulsory state education. Below, the educational platforms generated as part of the Digital School are described:

- Interactive schoolbooks[1]. There are enriched interactive books for the teaching of English in primary school (grades 3rd to 6th: Magic Book series) and for junior high school (grades 1st to 3rd: Think Teen series; see Figure 2.1). The e-books feature audio extracts from the textbooks' listening activities, glossaries and additional gamified activities.

[1] http://ebooks.edu.gr/new/

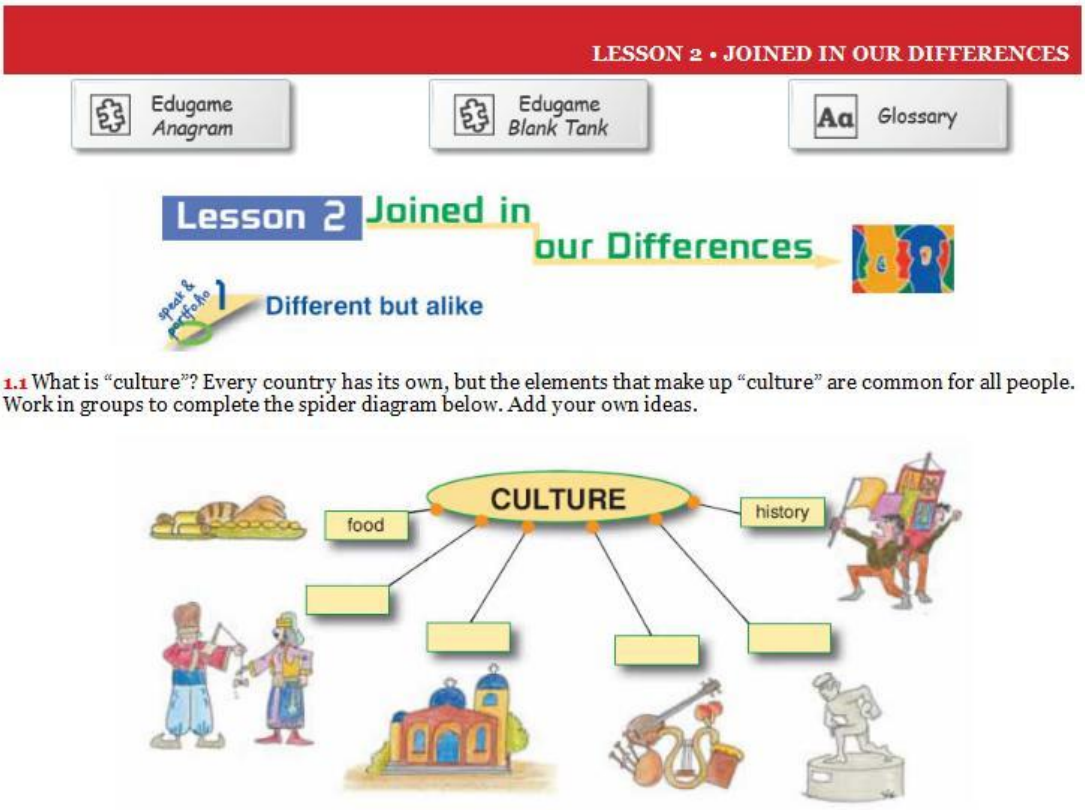


**Figure 2. 1 Screenshot by author from http://ebooks.edu.gr/new/ Lesson 2, Think Teen series**

- The Learning Objects Repository, Photodentro[2], is a collection of Open Educational Resources for all courses taught in state schools, including English (i.e. learning objects repositories, educational videos, educational software, educational material from users and open educational practices).

- The E-me Digital Learning Platform[3] for students and teachers is a social platform that supports communication and collaboration and provides personal space for files in a cloud environment. More specifically, it includes: "e-me content", where educators can design their own teaching/learning materials from ready-made templates; "e-me assignments", where tasks can be assigned to members of the

[2] http://photodentro.edu.gr/aggregator/
[3] https://e-me.edu.gr

platform; “e-me blog”, a personal blog for users and the ability to work together on blogs; “e-portfolio”, a personal space for storing files and “my photodentro”, which allows users to bookmark and find materials from Photodentro that interest them (see Figure 2.2).

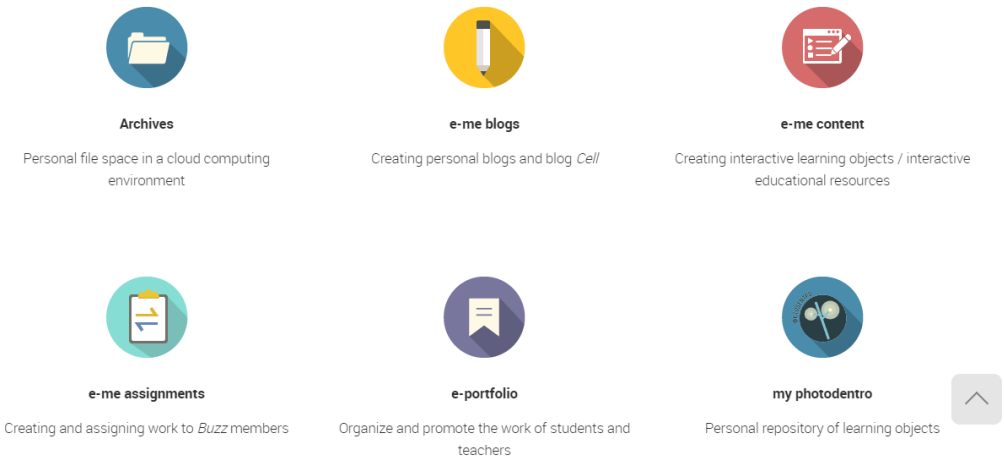


**Figure 2. 2 Screenshot by author from https://e-me.edu.gr**

- A Photodentro micro-site[4] which features a collection of digital materials designed specifically for English language teaching (which can also be found in “Photodentro”) and categorised as: mindmaps, audio extracts, glossaries, picture dictionaries, comics, educational games, self-assessment tasks/tests, listening/reading/writing applications, digital stories, seasonal songs and English quests (see Figure 2.3).

[4] http://micro.photodentro.edu.gr/english2015/?q=el/node/51

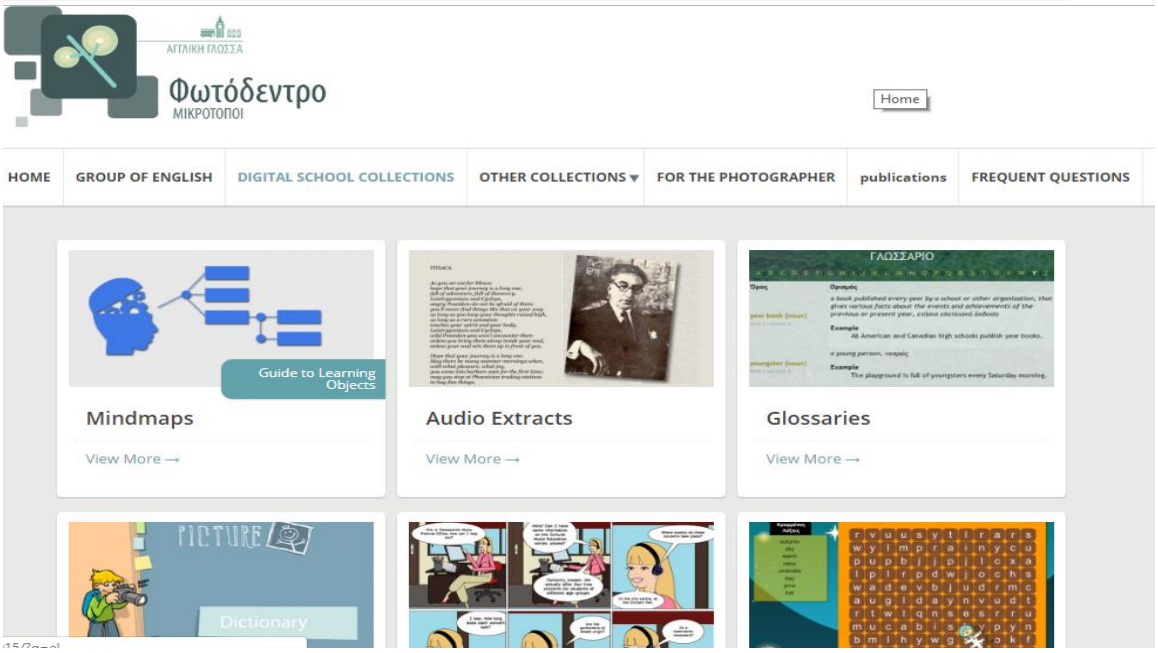


**Figure 2. 3 Screenshot by author from http://micro.photodentro.edu.gr/english2015/?q=el/node/51**

According to Mitsikopoulou (2014), the materials that one can find in the aforementioned platforms regarding the teaching of English vary. The materials were designed in line with the following principles summarized below: (a) the digital enrichment of the books should be systematic and refer to specific objectives; (b) it should also be supplementary to the textbook; (c) the materials produced may be of different forms and the same design should not be pursued for all textbooks; (d) an analysis of the textbook and cooperation of experts from multi-disciplinary fields is imperative prior to the creation of materials.

Despite the different electronic platforms of the Digital School project and its interactive digital material, both students and teachers have not found it particularly helpful for courses such as Ancient Greek, Math and Science, especially because of the limited resources available (Sotiriou, 2012). Another significant finding regards the use of Photodentro as a supplement to the teaching of a Science class; students who were exposed to materials from Photodentro exhibited better learning performance and positive classroom experience (Skoularidou & Mauroeidis, 2016). Students benefited more when materials in Photodentro

where incorporated into the teaching hours rather than when they were encouraged to study this material at home (ibid, 2016).

In academic research, there is no literature concerning the use of the Digital School in relation to the subject of English. It is worth mentioning that in her research, Sotiriou (2012) states that it was very difficult to find students that have used the platforms of Digital School, as many of them ignored their existence.

As it was underlined in the previous section, the role of teachers is pivotal in implementing innovative national policies. The Ministry of Education in Greece may propose and create digital tools for the teaching of English but that does not necessarily guarantee their adoption from educators. For this reason, in the following section, teacher attitudes to implementing technology in non-ICT subjects will be examined.

## 2.3 Teacher attitudes to ICT integration

School-level factors and teacher-level factors highlighted in Section 2.1 are interrelated and can impact the implementation of technologically enriched education more substantially than governmental decisions (Bingimlas, 2009; Drent & Meelissen 2008; Kozma, 2008). In this part of the literature review, the focus is shifted exclusively on teacher factors and their characteristics: attitudes, practices and training in ICT starting from European data and then focusing on the Greek context.

Despite the European Commission's recommendations and national policies promoting ICT use in school, there has been uneven progress and different levels of digital maturity across European counties (Giancola & Salmieri, 2018). The Nordic countries and the UK seem to be the frontrunners in advanced technological equipment at schools and teachers' frequent use of technology in their classrooms (Balanskat, 2009; Wastiau, 2013). Significantly, less than 10% of learners in secondary education in Greece have access to digitally supportive schools whereas for Northern European countries the percentage rises to 50% (Wastiau, 2013). Nevertheless, teachers across countries and across school levels support the use of technology to enhance teaching and learning.

According to the Study of the impact of technology in primary schools (STEPS) of 30 countries in Europe conducted in 2008-9, Greece and Latvia are the two countries in which teachers are found to be less digitally skilled and do not use ICT in their classes (Balanskat, 2009). Even though primary school teachers experience many barriers in technology use, they seem to be rather optimistic about the benefits of ICT in the learning process. "There is no longer a need to convince teachers and school heads about the relevance of using ICT for T&L [Teaching & Learning], but the need to equip teaching staff with the digitally based teaching competences and experience" (Wastiau, 2013, pp. 23-24). In the following part, Greek ESOL teachers' attitudes, practices and training in ICT integration will be more closely examined based on research performed locally.

### 2.3.1 Greek teachers and technology integration

Both intrinsic and extrinsic factors have been identified for avoiding the use of digital tools in English teaching classrooms (Celik & Aytin, 2014). In this chapter these factors are examined in reference to relevant literature in the Greek state school context.

Intrinsic factors refer to teachers themselves, who may not have been properly or sufficiently trained (Sotiriou, 2012; Tzotzou, 2017; Triantafyllou, 2018). Teachers have expressed concerns or "fear of technology" as their lack of digital skills may make them feel embarrassed in front of their students or colleagues (Batsila et al., 2014). In another study in secondary schools in Greece, teachers were found to need constant support due to their lack of ICT competence (Demetriadis et al., 2003). Primary school teachers' attitudes to the introduction of technologies in schools also underline the need for further training on ICT (Kiridis et al., 2006). Teachers seem to welcome new technologies, but they are also hesitant and not fully convinced of the pedagogical impact of the new tools (ibid, 2006; Jimoyannis & Komis, 2006, 2007). This reluctance may be attributed to lack of knowledge on the application of digital resources. Nevertheless, teachers in Greece are willing to be trained more for personal development reasons and to exploit the benefits of technology that can be relevant to their context (Demetriadis et al., 2003).

Lack of technical support, lack of time and lack of proper infrastructure for the introduction of ICT in Greek state school classrooms have been pointed out as extrinsic factors by Greek

educators; these factors block educators from employing technology (Sotiriou, 2012, Triantafyllou, 2018). Teachers have also received little information regarding new technologies and digital resources, and little training on how to use them to address subject specific needs (Paraskeva et al., 2008).

Despite the national policies promoting technology integration, ICT teacher training is not *well or equally* established in all Greek Universities departments that train prospective language schoolteachers (Bikos, Stamovlasis, & Tzifopoulos, 2018). The Department of Philosophy, Pedagogy and Psychology is the only department of the Aristotle University that trains Greek language teachers and has embedded ICT as a compulsory workshop in its curriculum (Bikos & Tzifopoulos, 2012). The goal of this course is to help prospective teachers develop computer literacy. However, this compulsory workshop is loosely tied to language teaching methodology; the main emphasis is on familiarizing with e-mail services and basic web-based applications, e.g. bibliographic searches (Bikos & Tzifopoulos, 2012). The practical and hands-on experience with the digital resources available at *state schools* is missing from tertiary training (ibid, 2012).

Looking at the syllabi of English and Language Literature University departments in Greece, there are only few educational technology courses available. Their approach is mainly to teach theoretical principles, rather than involve student teachers in experimenting with available language learning technologies. This is also the case for training courses offered by teacher associations and ELT publishers, which are theory oriented (Tzotzou, 2017). Teachers are not involved practically with technology and this may impact how they realise the benefits or implement technology in their classrooms.

On the other hand, Greek *in-service* teachers of primary and secondary education are given practical training on ICT use in educational settings. Educators can take part in the training programme "In-service Training of Teachers in the utilisation and application of Digital Technologies in the teaching practice"[5] (A and B-Level ICT Teacher Training) in order to develop their ICT skills and employ them in the classroom. This ICT training, offered by the Ministry of Education, educates teachers on technology, offers practical experience and

[5] https://e-pimorfosi.cti.gr

expects the completion of projects from the participants. The programme is co-funded by the Greek government and the European Union's Business Plan "Human Resources Development, Education and Lifelong Learning" (European Commission, n.d.), which aims to provide opportunities for quality education and skills development of both teachers, students and youth in general.

Despite the funds allocated to teacher training, "state EFL teachers' training and professional development has almost been neglected" (Tzotzou, 2017, p.52). State school educators of all disciplines need to make an application if they wish to participate in A level ICT training, and they are then chosen based on a lottery procedure. After successfully completing this level, teachers of some disciplines could apply for B level training. It was not until recently that ESOL teachers could apply for B level training (divided in B1 and B2 level). Applying for the training programme does not ensure that the teachers are selected. Slowly but steadily teachers of all subjects are invited to apply for both A and B level ICT training. As a result, new clusters will soon be introduced into B2 level training, e.g. Foreign languages cluster, Art cluster, Special Education cluster.

The Greek governmental support for ICT teacher training is also crystalised in the new Ministerial decision which describes the new duties of the former school counselors, currently called moderators of educational design (Gavroglou, 2018). According to this decision, the moderators are expected to organize informational and training meetings that among other regard the modern approaches to utilizing ICT resources in the management of the school unit and during the teaching process.

All in all, foreign language teachers seem to be the last ones who were introduced to ICT training (both basic and advanced). Training sessions rarely elicit practical outcomes from teacher-attendees; even the training given to teachers is not adapted to the subjects they teach. Nevertheless, teachers recognize the potential benefit of technology, but they require more training before they can introduce it to their classrooms. Overall, for the Greek context "top-down imposed policy decisions and technocentric models for ICT adoption appear to be unresponsive to teachers' perspectives, priorities and classroom or general professional needs" (Jimoyannis & Komis, 2007, p. 170). As soon as teachers are shown

evidence of the benefits of certain technologies in the language learning process, then they will undoubtedly use this technology.

## Summary

Technology is an integral part of our social lives and is being steadily introduced into classrooms. Governmental and European policies support technology mediated instruction and development of digital literacy skills of learners and teachers. ESOL teachers in Europe and specifically Greece seem to welcome digital initiatives; however, they do not feel sufficiently trained to pedagogically integrate technology to assist and enhance student learning. In the Greek context, the new educational policies, i.e. the EYL programme, and the IFCL Curriculum, favour plurilingualism, foreign language instruction starting at a very young age, and digital innovations. The government introduced the Digital School project which offers a variety of digital platforms for the teaching of all subjects at state schools, including English. For this study, the purpose is to investigate how English language teachers implement and feel about the Digital School initiative. It is essential to explore practices and beliefs as "ordinarily what matters most is not the technology per se but how it is used" Ehrmann (1997) as cited in (Egbert, 2007). In the next section, the methodological approach and research instruments used in this study will be presented.

# Chapter 3 Research Methodology

This chapter concerns with the data collection methods of this study, i.e. a questionnaire and semi-structured interviews. Section 3.1 explains the reasons for following a mixed methodology and the rationale for employing each research instrument. Sections 3.2 and 3.3 outline the design of each of the research instruments and their relevance to the research questions. Section 3.4 describes the method of analysis and in Sections 3.5 and 3.6 potential limitations and ethical considerations of this research methodology are discussed.

## 3.1 Data elicitation methods

The aim of this research is to investigate English language teacher attitudes to specific ICT tools designed for English language teaching. To obtain data for this research, a mixed-methods approach was employed. A mixed-methods approach combines advantages of quantitative and qualitative measures and can consequently offer further validity to the research and a multi-level analysis of the data obtained (Dörnyei, 2007).

Two main research instruments were used: (a) the questionnaire, a quantitative measure which also featured more qualitative open-ended questions and (b) the semi-structured interview, a qualitative measure. Therefore, this mixed-methods design was evident not only because two different instruments were used but also because the questionnaire itself included both closed and open-ended questions (Johnson & Onwuegbuzie, 2004).

Combining these two different instruments was chosen not only because they served different purposes, but because they could complement each other by providing a holistic perspective into the research questions (Johnson & Christensen, 2008). The design and purposes of each instrument is described in the following sections.

### 3.1.1 Questionnaires

The main strength of questionnaires is that they can be administered to many people and numerous responses can be received over a small period (Dörnyei & Taguchi, 2003), especially compared to the response rate and population reached over a certain time

through interviews. Time was essential to this research, as the study needed to be completed during the four months of an academic semester, and the researcher was working full-time as well.

Apart from the large population a questionnaire can reach, the quantitative data collected can be efficiently analysed via statistical software (e.g. Excel or SPSS). These facts make the questionnaire a powerful research tool, providing great flexibility to the researcher. Despite these advantages, questionnaire responses may result in rather superficial data (Dörnyei, 2007, p. 115). It is inherent in the design of questionnaires and quantitative methods not to investigate in depth. In designing questionnaires, researchers should strive to make questions short, easy to grasp and leave no room for misunderstanding (Dawson, 2002). However, the demand for simple and short questions do not allow further exploration of topics.

Questionnaires may include open and/or closed questions. Open-ended questions give the opportunity to respondents to expand on their thoughts; responses to open-ended questions provide unique input that the researcher may not have access to or knowledge of when designing the questionnaire (Dawson, 2002). Close-ended questions on the other hand provide the respondent with predefined categories, which makes it easier to complete. Consequently, the responses can be coded and analysed relatively fast and in a straightforward way by the researcher, e.g. via statistical software.

The questionnaire for this research was designed and distributed in digital form. It included mainly closed-ended questions (multiple–choice, Yes/No, and Likert-scale). There are some benefits to administering a questionnaire online rather than in paper form. The researcher can reach out to a wider population and respondents can complete the questionnaire at any time or place (Cohen, Manion, & Morrison, 2002). It is thus a more convenient way of data gathering for both parties. Moreover, certain features of web-based questionnaires, e.g. the "required" feature, ensure that all important questions are answered before submission. Hence, missing entries are considerably fewer than paper-based surveys (Cohen, Manion, & Morrison, 2002), as the system asks the respondent to complete unanswered questions before submitting.

As the intention was to obtain data from a large population, the questionnaire was designed to not take more than ten minutes to complete and thus consisted mostly of closed-ended questions. However, open-ended questions were part of the questionnaire, as clarification requests (Dörnyei & Taguchi, 2003) or to enable respondents to provide their own perspective into the topics. The "Other, please specify" option was part of the answers so that respondents would not have to restrict themselves to the categories provided.

### 3.1.2 Semi-structured interviews

There are three types of interviews in educational research: structured, semi-structured and unstructured interviews (Zacharias, 2011). Structured interviews largely resemble a quantitative questionnaire and do not give interviewees a lot of leeway to express themselves. It could be unproductive to use two different measures that accomplish the same goal, especially when the interviews take longer to complete. Unstructured interviews give a lot of freedom to the participant, but it is challenging to replicate the conditions or compare the data received (ibid, 2011). The unstructured interview may progress in various (not previously thought) ways and different, unique topics may emerge every time.

Semi-structured interviews embrace the golden ratio of the two aforementioned "extremes". The interviewer has constructed a guide with predetermined questions or topics but is allowed flexibility as the order of the questions is not strict (Zacharias, 2011). Even though interviews follow a prepared question guide, their nature (open-ended questions) favours elicitation of in-depth responses (Dörnyei, 2007). Participants are welcomed to give open-ended answers, while interviewers are always able to explore emerging topics relevant to the objectives of the research. Therefore, semi-structured interviews seemed to be the perfect fit for this research and would ideally complement the questionnaire by probing further into responses, practices and attitudes that would be challenging to capture through the questionnaire alone. Since the teachers to be interviewed come from various school contexts, and bring their own experience, semi-structured interviews provide freedom to the participants to be analytical about their attitudes and discuss topics or factors that the researcher may have not considered.

For this research, semi-structured interviews were conducted with 9 English language educators in state schools. Interviews were conducted via Skype, as the interviewer was not located in the proximity of the participants. Moreover, Skype has an embedded recording tool which proved very useful: every time the recording button is (de)activated it is always visible to both parties. This tool also sends the recorded transcript to both parties and this proved useful to later stages of transcribing and translating the data (Dawson, 2002).

### 3.1.3 Sampling

"Selecting a truly representative sample is a painstaking and costly process" (Dörnyei & Taguchi, 2003, p. 71). Given the limited time for this study, i.e. an academic semester, the researcher opted for convenience sampling methods (ibid, 2003). Convenience samples are purposive samples: participants need to fulfil certain criteria (e.g. for this study be in-service ESOL state schoolteachers) and they are chosen based on their accessibility and availability. Moreover, acquaintances were first contacted to assist in the piloting of the research instruments.

Furthermore, as it was difficult as an outside researcher to have access to state schools, educational centres and associations were contacted to distribute the questionnaire to potential participants. The Panhellenic Association of English Teachers of State Education[6] (ΠΕΚΑΔΕ in Greek) was contacted to promote the questionnaire to ESOL teachers. Educational Directorates and Peripheral Centres of Educational Design were also contacted to act as informants and disseminate the questionnaire to a population that fit the research sample criteria. However, few moderators of English language teaching were willing to assist.

As this research design requires a relatively large sample, the questionnaire was distributed electronically to social media (e.g. groups of Greek ESOL teachers on Facebook), upon advice of educational management bodies. Employing virtual sampling through Facebook has been deemed effective both for reaching a larger of number of participants and for

[6] https://www.pekade.gr/gr/

controlled quality of responses (Baltar & Brunet, 2012). This method seemed to be the most successful, as more responses were gathered during this phase.

The sample for the interviews was also determined by a participant self-selection procedure. At the beginning of the questionnaire, participants were asked to register their contact information in case they were interested in having follow-up interviews. There were 15 expressions of interest through the questionnaire but only the 9 respondents that had stated they worked in the public sector were contacted for an interview.

After a month and a half of distributing the questionnaire online (starting February 12th till March 29th) 75 responses were collected from English language educators at state schools. Out of those, 14 teachers work in senior high schools, 37 in primary schools, 23 in junior high school and 1 in a vocational high school. Thus, in this sample there are 38 teachers working in secondary education and 37 in primary education.

## 3.2 Design of the Questionnaire

The design of the questionnaire was based on Cajkler (1993) in terms of structure and, in part, in terms of content. The questionnaire was delivered solely online and can be found in Appendix A. There are three parts in the questionnaire; the first comprises of factual questions (teachers' gender, age, years of teaching experience, etc.). The second part includes attitudinal questions regarding the familiarity, use and views towards ICT tools in English language classrooms. The last part gauges teachers' perceptions of training they have received, or preparation required before introducing digital materials in the language class.

More specifically, the questionnaire consisted of three parts as follow:

- Part 1: About you and your school
- Part 2: Attitudes and Use of the digital materials and ICT in ELT classrooms
- Part 3: Perceptions regarding training and preparation required

The purpose of Part 1 was to gather factual data regarding teachers and the school they currently work in. The questions included information on teachers' gender, age, years of

(English) teaching experience. There were also questions on the available technological equipment and IT support of the schools to the teachers.

The second part of the questionnaire included questions concerning teachers' practices and teacher attitudes to digital materials in the classroom. The first question asked teachers to state their general view on the use of ICT in English language classes by indicating whether they are supporting it or not on a scale of 1 to 5 (1=strongly opposed, 5=strongly supporting).

Next, teachers were asked where they find the digital materials they use in the classrooms and how often they use certain materials on a 4-point Likert scale (1=never, 4=daily). The list of materials as shown in Photodentro Microsite for English[7] was used to determine the materials featured in this question. For the same materials teachers were asked to indicate to what degree, on a 5-point Likert scale, they find that these resources could enhance English language teaching/learning experience and how concerned they are about how to use them.

The three following questions asked respondents about the platforms of the Digital School as described in Section 2.2.1. They were asked to (a) state their familiarity with the platforms, (b) how beneficial they think the platforms are for ELT and (c) how concerned they are about employing them. These three questions were in Likert scale form (1=not at all, 5=a lot). The final question of Part 2 was on whether teachers encourage their students to use the above-mentioned platforms.

Part 3 focused on teachers' experiences in ICT training for ELT. On a 5-point Likert scale (1=not at all, 5=a lot), respondents had to indicate how much training they believe they have received concerning digital tools for ELT. Respondents were then asked what body was responsible for their training and what form it took.

Further, respondents were requested to designate on a 5-point Likert scale how beneficial the training was for their teaching and how adequately the university or college had prepared them for this profession. Teachers' opinions were gauged on a scale of 1

[7] http://micro.photodentro.edu.gr/english2015/?q=el/node/47

(=negligible difference) to 5 (=huge difference) on the difference between what happens in training courses in comparison to actual practice.

The next question gauges whether teachers believe that changes in their school regarding ICT have been introduced rather quickly. An open-ended clarification question followed this question for teachers to specify which changes they are referring to. Respondents were asked to mention whether the schools they currently work in are supportive of integrating technology in classrooms.

Closing the questionnaire, teachers were asked whether they would like to receive further training on ICT and indicate the specific topics/aspects they would prefer to be trained on, by checking the appropriate boxes-categories. A general open-ended question invited participants to add their own comment regarding ICT and English language teaching.

## 3.3 The Interview Procedure

An interview guide was designed prior to conducting the semi-structured interviews and can be found on Appendix C. It consisted of a list of questions that the researcher regarded as key to the objectives of the research; the most important questions are marked in bold. "For a novice researcher, a semi-structured interview based on an interview schedule that centres on around six to 12 well-chosen and well-phrased questions… is a good starting point." (Rowley, 2012, p. 262). However, the order of the questions was not strictly followed and additional clarification questions were made where appropriate.

Appropriate greetings and rapport with the participants were established prior to the interviews (Dawson, 2002). The participants were also sent a consent form through e-mail that notified them of the interview process and their rights prior to interviews, (see Section 3.6 & Appendix B). They delivered it back signed and a convenient time for both parties was agreed for the interview. The interviews were conducted in Greek to elicit more natural responses from the interviewees, removing any language barriers.

The interview started by asking the participants information about their school, e.g. the classes they teach and technological equipment available. Beginning with general

questions is a good way to introduce the participant to the interview process before moving to more personal, attitudinal questions (Dawson, 2002).

Next, the interviewer mentioned the different platforms of the Digital School and elicited participants' use and attitudes of the platforms. Interviewees were encouraged to be analytical in their responses and were probed to give more information about why they find certain resources useful or not.

The next key topic discussed was participants' training in ICT for language teaching. Interviewees were asked to comment on previous experiences of training and whether they needed more training and on what issues. Depending on interviewees' responses, the researcher probed further into certain matters that seemed relevant to the research objectives.

The interview ended by asking participants to provide a general comment on ICT integration in Greek ELT classes. The participants were thanked for their cooperation and participation.

After the interviews, the researcher listened to the recordings and partially transcribed the key parts of the interview (Drever, 1995). The transcribed parts were then translated by staying as close as possible to the participants' wording and put together in a summary. The translated interview summaries were then sent back to the interviewees to make any changes if they so wished (Alexander, n.d). All participants fully agreed with the summaries and their content. Although Drever (1995) cautions that sharing the summaries may lead to interviewees adding more information or change their initial responses, the researcher considered that sharing the summaries was a crucial step since the transcriptions had undergone a translation process.

## 3.4 Analysis of the Data

Given the mixed-methods approach of the research, the data collected was analysed through quantitative and qualitative methods. Below, the process of analyzing the data elicited from both research instruments are briefly mentioned.

The data collected from the questionnaire was entered into the Excel statistical software. This software assisted the researcher to classify the data, calculate basic statistics such as averages of the data sets, and visualize the data through graphs and summary tables. Therefore, descriptive statistics were used to analyse questionnaire data.

To analyse interview data, a thematic analysis was employed. The key themes that emerged through the interviews were identified (Rowley, 2012) and were refined with the questionnaire findings. The interview questions were a good guide for identifying the key themes (ibid, 2012) and the analysis was based on those.

## 3.5 Limitations

There are certain limitations in this research design, mostly due to the limited research on the Digital School so far, and the limited time for this study. There are no surveys in academic literature on the Digital School and ELT; the available research focuses on other disciplines. Additionally, given that there were fewer than four months available to conduct the research, it was not possible to engage in long-term participant recruitment. The sample was rather broad, as it included participants from both primary and secondary education, and simultaneously relatively small. The researcher could not have any previous knowledge of how many teachers would respond to the questionnaire. It would be ideal if the focus was only on one school level. Given convenience sampling and the fact that participation was voluntary, it is expected that not all populations are evenly represented and thus the results might not be generalizable to the wider population.

## 3.6 Ethical Considerations

Online questionnaire studies may not require a consent form completion as the participant consents by submitting the questionnaire (Rundblad, 2006). However, respondents to the questionnaire were made aware of the purposes of the study through the questionnaire's introductory paragraph. The questionnaire did not ask for the participants' personal information. However, participants were invited to provide their e-mail addresses in case they wanted to be interviewed on the topic. This information remained confidential to the researcher and any data originating from the interviewees that could make them identifiable to third parties was anonymised or concealed (Bassey, 1999).

Following the updated guide for educational research by the British Educational Research Association [BERA] (2018), the interviewees were briefed about the research agenda before the interview. They were asked to sign a consent form (see Appendix B), which was then delivered back signed to the researcher through e-mail. They were notified also of their right to stop the interview at any time and that their personal information would remain confidential. As advised by BERA (2018) the recordings are stored in a safe place and the records are anonymised.

## Summary

This section described the methodology and research instruments employed for this study. The rationale and research objectives of each instrument were described alongside the sampling procedure, limitations of the design and analysis applied to the data collected. The next section will present findings of the questionnaire and the interviews; based on these, suggestions are made for management of change in the Digital School.

# Chapter 4 Analysis & Research Findings

In this chapter the key findings collected from the questionnaire and the interviews are presented. Section 4.1 describes the results from the questionnaire and Section 4.2 provides further background and deeper understanding of these results by referring to data elicited from interviews. Finally, in Section 4.3, these findings are interpreted by proposing necessary changes concerning teacher training and introduction of ICT in state schools based on the comprehension of the data acquired through this study.

## 4.1 Classification of findings

### 4.1.1 Demographics

In this part, the demographic data of the Questionnaire are reported. There is equal representation of teachers working at primary (primary schools) and secondary (junior and senior high schools) education as illustrated in the graph below, Figure 4.1.

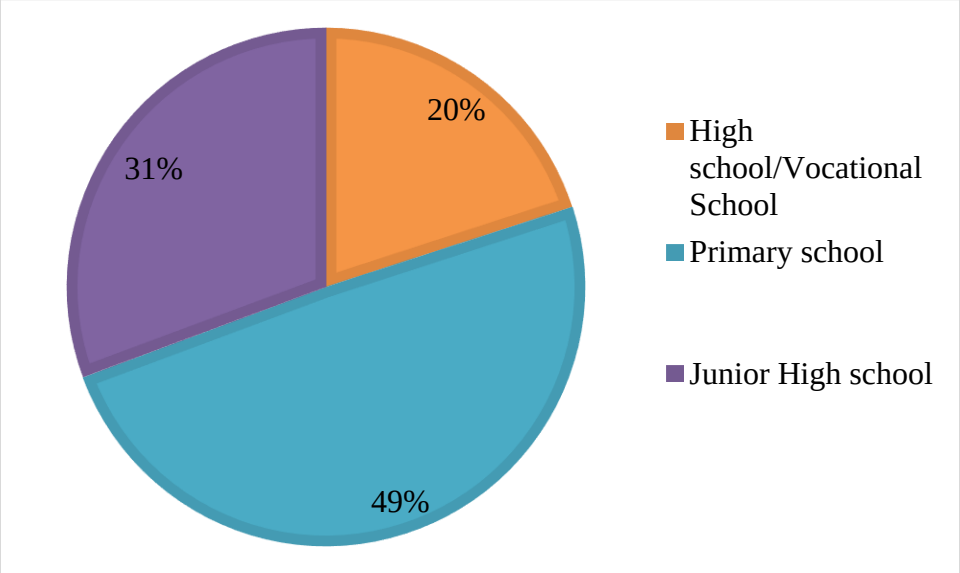


**Figure 4. 1 What school do you work in now?**

The respondents (75) were predominantly female (92%) and there was representation from all age groups as shown in Figure 4.2 across school contexts. The vast majority of respondents had extensive English teaching experience, with 48% having taught English for 11-20 years, and 41% for more than 20 years. All respondents are graduates in English Language and Literature and 15 of them have had access to postgraduate studies. Given that 89% of respondents have more than 10 years of English language teaching experience and 20% of respondents have acquired a second university degree, it can be concluded that this sample is well educated and carries valuable experience in English language teaching.

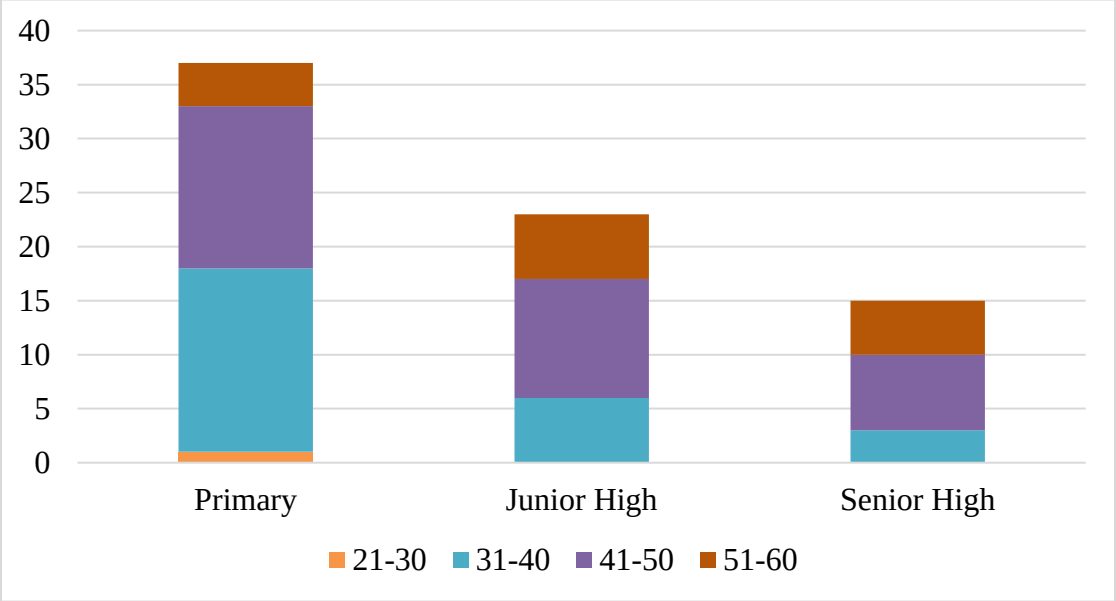


**Figure 4. 2 Teachers' age distribution in different school levels**

Regarding the state school context, 74% of respondents work in schools equipped with whiteboards and projectors, 17% have none of these tools, while the remaining have some of the equipment (e.g. projectors) in certain classrooms only. However, only 27% of the respondents have access to interactive whiteboards or software. 55% of respondents have some access to IT support at their schools and it was highlighted again that there is partial equipment or that ICT resources are available upon request. The data regarding schools' infrastructure confirm the varying school facilities across Greece. Schools with limited technological resources may block educators from implementing ICT in their classes, or force educators to use their own equipment.

### 4.1.2 Teacher attitudes to the Digital School

Respondents' answers regarding the second part of the questionnaire are presented below. The data in this part reflects teachers' use and attitudes towards digital materials and platforms designed specifically for state schools and the subject of English.

In terms of general adoption of digital media and technologies in the English language classroom, respondents seem to favor integration of technology with an average of 4.33 out of 5 on a Likert scale, where 1 is "strongly opposed" and 5 "strongly supporting". This sample seems to be rather positive to incorporate technology in English language teaching.

Teachers reported that they draw the digital materials they use in their classrooms from a variety of sources. Table 4.1 shows their preferred resources. Significantly, only 3% reported that they do not use digital materials in their classes.

**Table 4. 1 Where do you find the digital materials you use for English teaching?**

| Sources | Percentage |
|---|---|
| I do not use digital materials in my class | 3% |
| On the Internet | 92% |
| online resources of The Ministry of Education | 64% |
| from ELT publisher(s) | 25% |
| From fellow teachers | 25% |
| I design my own digital materials | 37% |

On a global level, respondents seem to use audiovisual materials, i.e. audio extracts, videos, songs more often than other resources. 20 respondents reported using videos daily while 40 of them use audio extracts, songs and videos frequently. Educational games seem to be the runner-up as 62 respondents use them sometimes or frequently. Almost half of the teachers sometimes use self-assessment tasks and/or digital stories. The least frequently used materials seem to be comics and picture glossaries, see Figure 4.3.

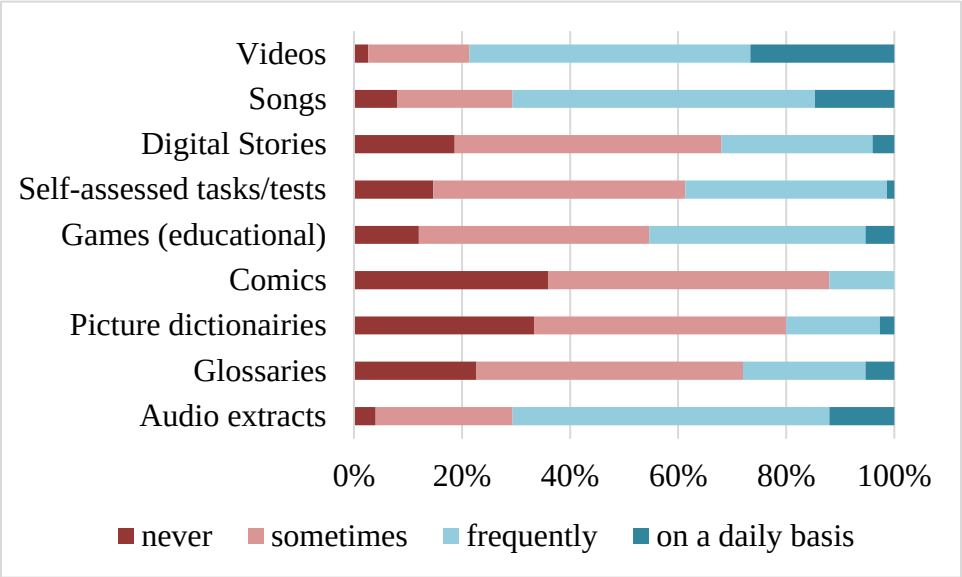


**Figure 4. 3 How frequently do you use these digital materials in your ELT class?**

Looking more closely at the materials used by teachers according to the level of school they work in, certain resources seem to be more popular in primary schools, i.e. audio extracts, picture dictionaries, comics, educational games, digital stories and songs. Videos and self-accessed tasks seem to be highly and equally preferred in both educational sectors (see Figure 4.4).

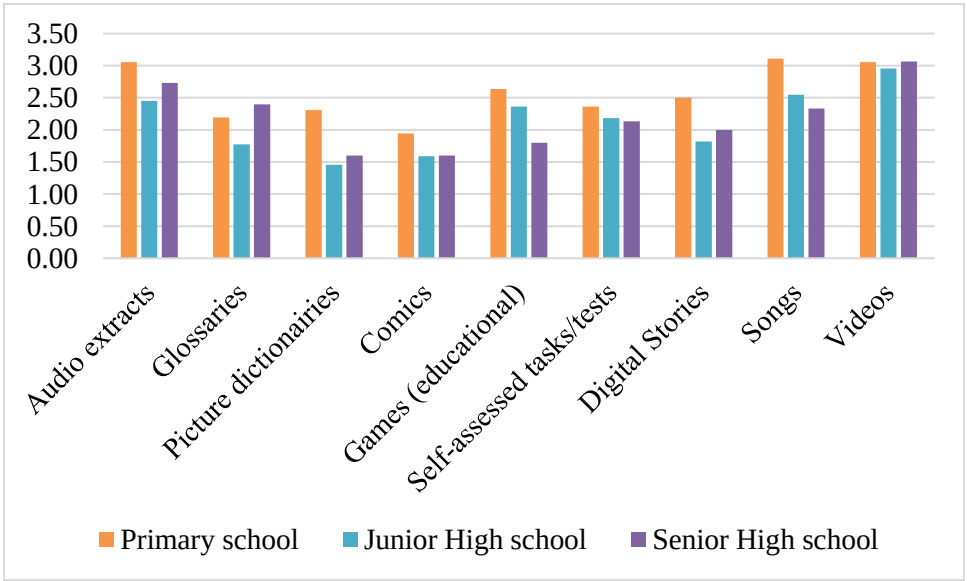


**Figure 4. 4 Frequency of use of digital materials**

In terms of how beneficial specific digital materials are for English language teaching and learning, respondents on a global level showed a strong preference for videos, songs, audio extracts, games and picture dictionaries (see Figure 4.5).

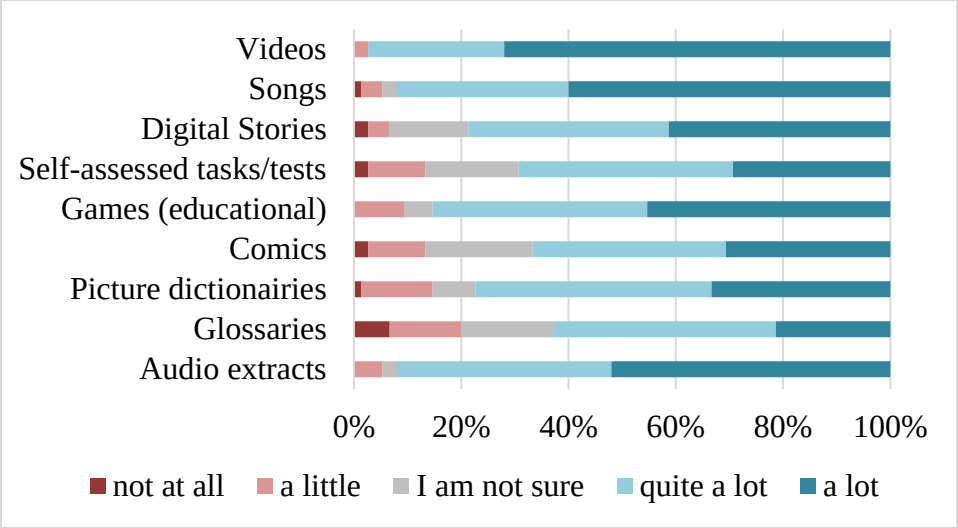


**Figure 4. 5 To what degree do you believe that the digital materials below can enhance the English language teaching/learning**

Interestingly, respondents do not seem to value any materials as more or less beneficial; this is true for all school levels. There is little difference in the perceived value of the listed digital materials in the teaching of English.

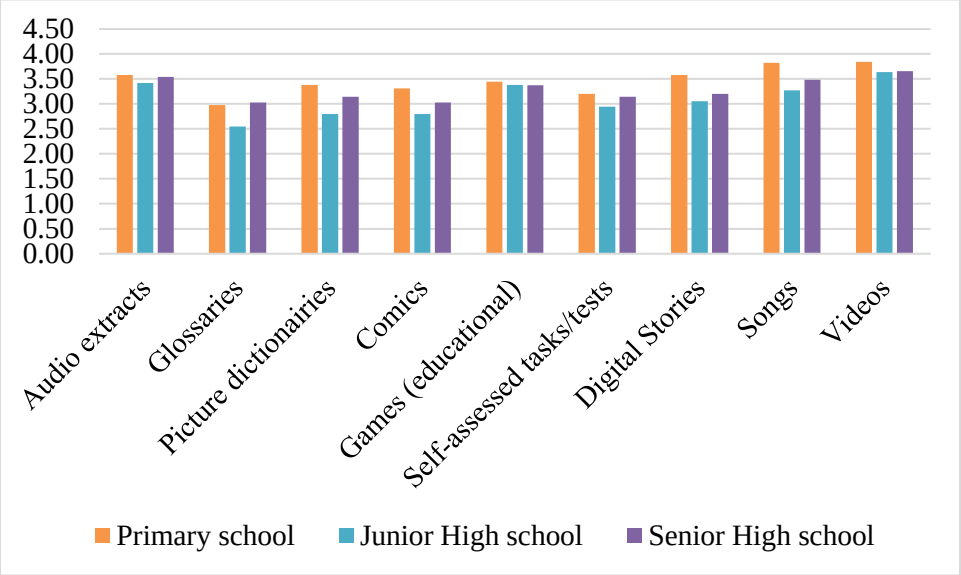


**Figure 4. 6 Perceived benefit of digital materials across schools**

Comparing the graphs of frequency of use (Figure 4.4) and perceived benefit (Figure 4.6) of digital materials, respondents seem to use less frequently materials that they rate as beneficial for English language teaching. For instance, teachers report that digital stories can enhance English language teaching quite a lot. Despite that, digital stories are only sometimes used in the language classroom. This is the case for almost all materials as they score high on the perceived benefit but low in frequency of use.

This surprising discrepancy could be due to a plethora of reasons. Teachers may not have access to technological equipment necessary to properly integrate them in the classroom. As shown earlier, not all respondents have ICT tools available in the school context they work. This discrepancy in beliefs and actual practice could also point to lack of time or lack of appropriate resources or lack of training on how to use the resources available.

In terms of respondents' concern about how to use digital materials in their class (see Figure 4.7), interestingly they seem to be either not at all concerned or very concerned about how to use videos, songs, video games and audio extracts. These are the same materials that seem to be preferred in the previous two questions.

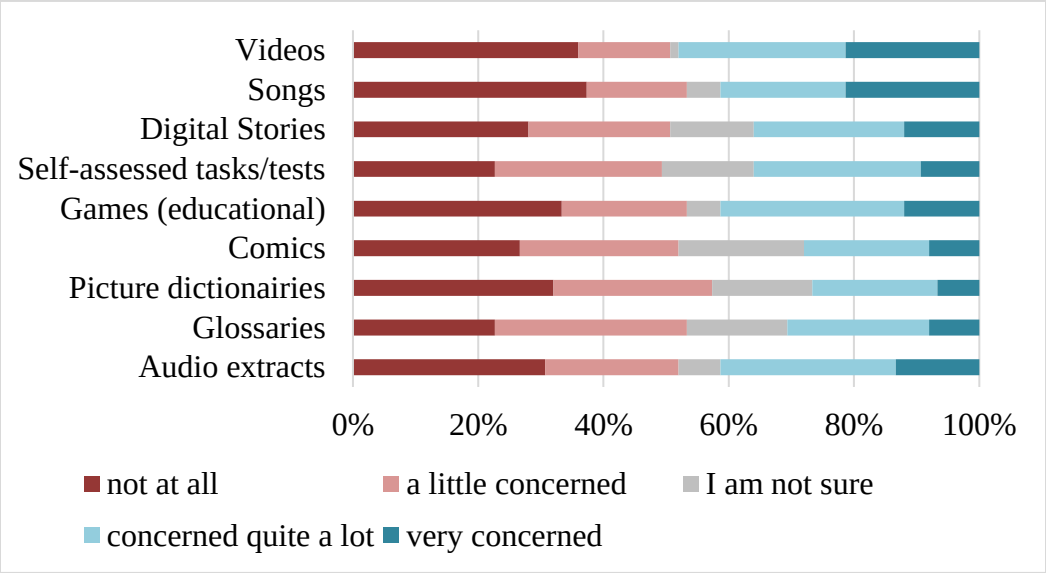


**Figure 4. 7 To what degree are you concerned about how to use the following digital materials in your English language class?**

Regarding the digital platforms of the Ministry of Education, respondents are mostly familiar with E-books and Photodentro material. They report to be less familiar with the E-me platform (see Figure 4.8).

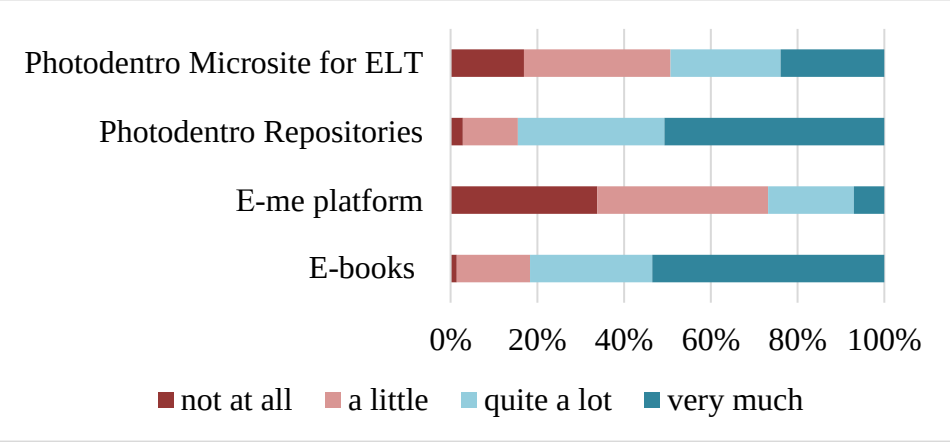


**Figure 4. 8 To what degree are you familiar with these platforms offered by the Ministry of Education?**

Simultaneously, respondents do not seem to be clearly more or less concerned about how to use a particular platform (see Figure 4.9). Respondents find e-books and Photodentro Repositories as the most beneficial resources for ELT, while half of the respondents state that they are not sure how beneficial the E-me platform can be. This might be because they are not familiar with it and thus hesitant to express an opinion on its efficiency (see Figure 4.10).

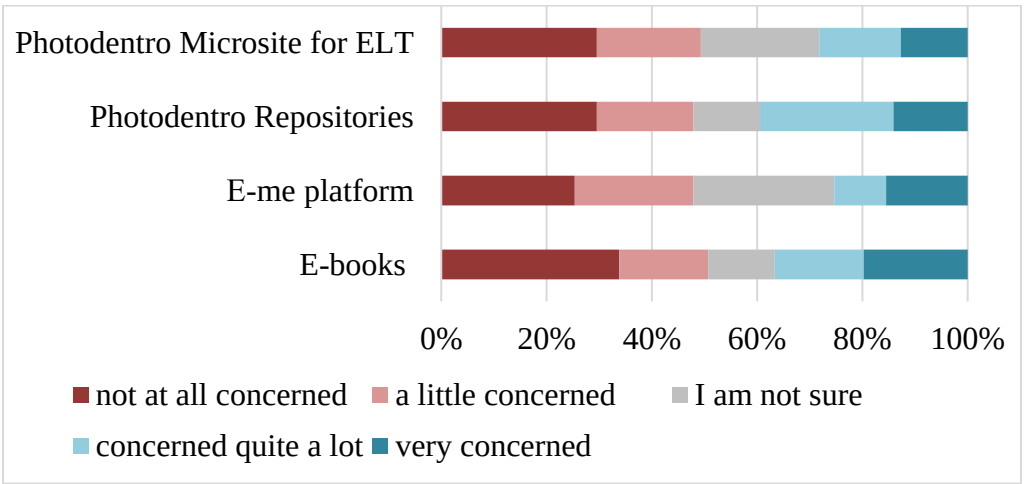


**Figure 4. 9 To what degree are you concerned about using these platforms?**

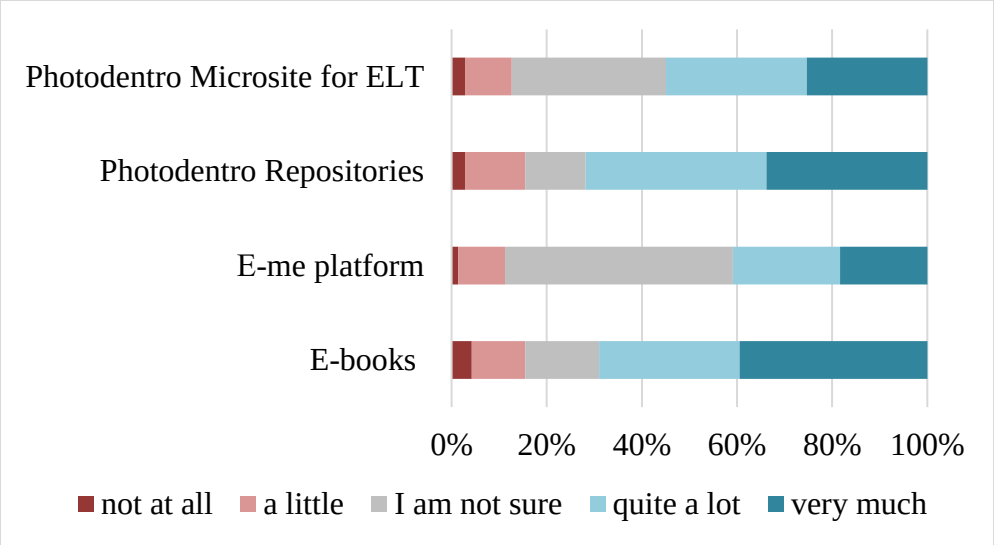


**Figure 4. 10 To what degree do you believe these platforms are beneficial to the teaching/learning of English?**

A surprising 91% respondents report that they encourage their students to use digital materials at home, most often e-books and Photodentro at 60% and 58% respectively (see Table 4). Most respondents do not encourage the use of E-me or Photodentro Microsite for English at home, although this could be because teachers are less familiar with the E-me platform, as reported in previous questions.

This sample has reported that 64% of the materials they use comes from platforms of the Ministry of Education; they find the rest of the material from other sources or they create it themselves. This fact may point to the limited or unsatisfactory sources of the Digital School. This might be the reason why participants seem to promote use of digital resources, but they encourage their students less towards the online platforms of the Digital School.

**Table 4. 2 Do you encourage your students to use these platforms?**

| Digital Platforms by the Ministry of Education | Percentage |
|---|---|
| E–books | 60% |
| E–me Platform | 20% |
| Photodentro | 58% |
| Photodentro Microsite for English | 31% |

### 4.1.3 Teachers training on ICT

The third part of the Questionnaire investigated teachers' perceptions of training. The key findings that relate to this part are described below.

Regarding the perceived amount of training received on digital tools for English language teaching, respondents replied with an Average Likert score of 3.18, (1=not at all, 5=very much), which indicates a rather neutral position (see Figure 4.11).

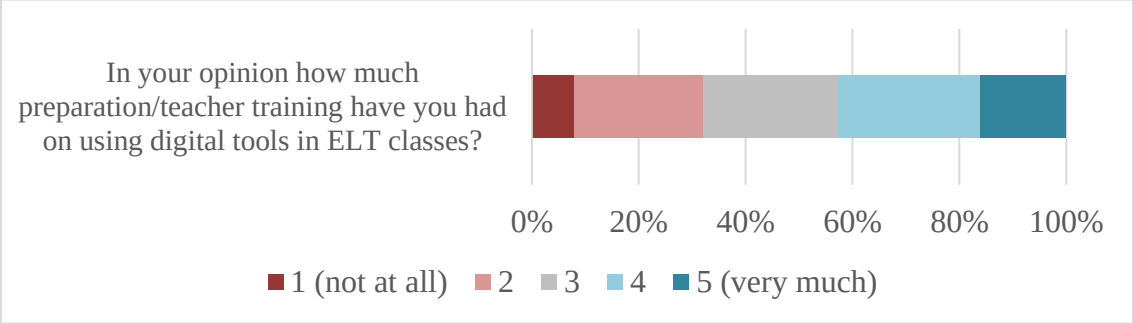


**Figure 4. 11 Teachers' perceptions on ICT training received**

Respondents seem also neutral and slightly more positive about how helpful their training has been in improving their teaching (see Figure 4.12), with an Average Likert score of 3.52 (1=not at all, 5=very much).

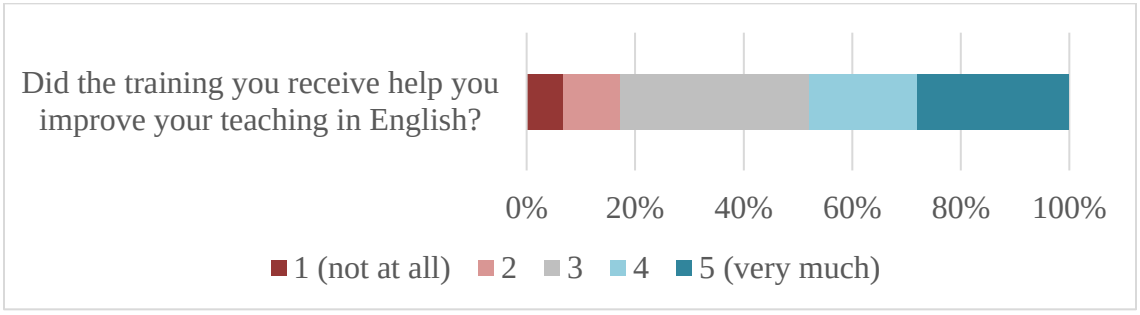


**Figure 4. 12 Helpfulness of training received**

Half of the respondents state that they have been trained by the Ministry of Education. Significant is also the percentage of training support teachers have received from their academic studies, teacher associations and ELT publishers (a combined 55%) as can be seen in Figure 4.13. Most training sessions were seminars, lectures or in the form of meetings, see Figure 4.14.

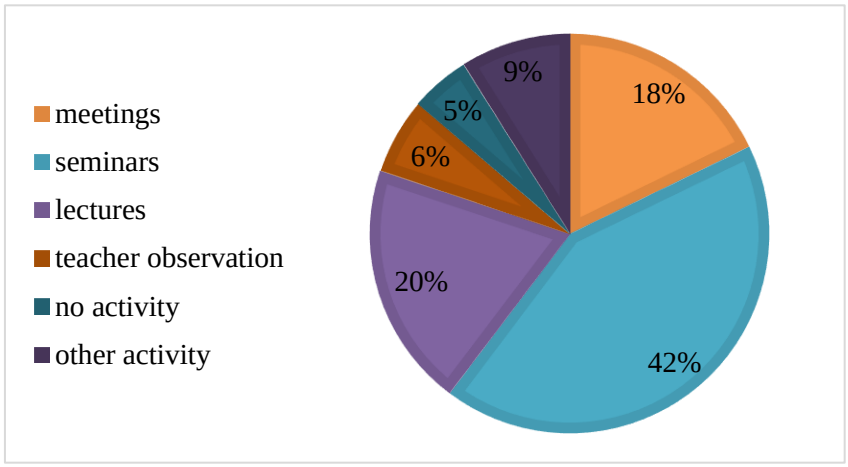


**Figure 4. 13 What form did your training take?**

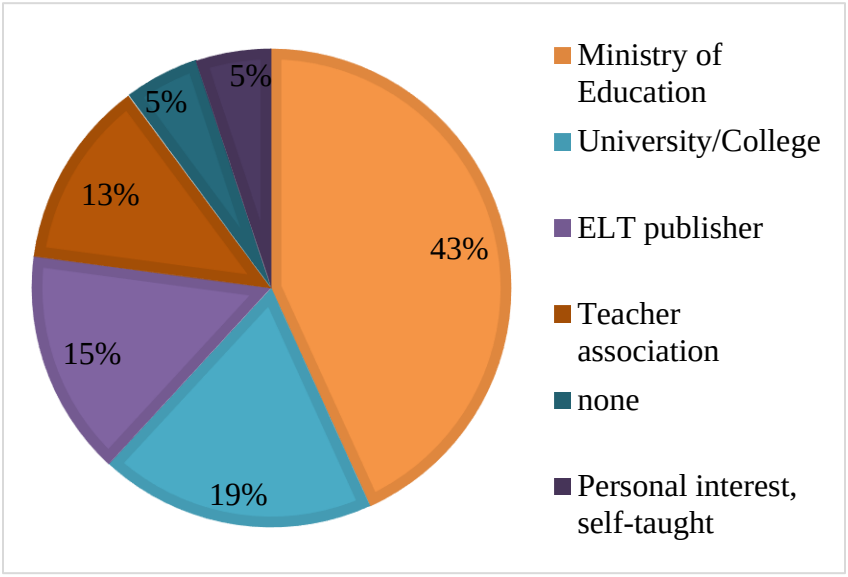


**Figure 4. 14 What body was responsible for your training?**

Regarding how well respondents feel they have been prepared for their teaching profession through their academic studies, they responded rather neutrally and negatively with an Average Likert score of 2.70 (1=not at all to 5=very well). Most surprisingly only 20 of the 75 respondents (less than one third) reported that they feel their initial training prepared them well or very well for their teaching.

Respondents were definitive that there is great distance between what happens in training courses and what subsequently takes place in classrooms (see Figure 4.15), scoring an Average Likert score of 4.06 on the 5-point Likert scale (1=negligible difference, 5=huge difference).

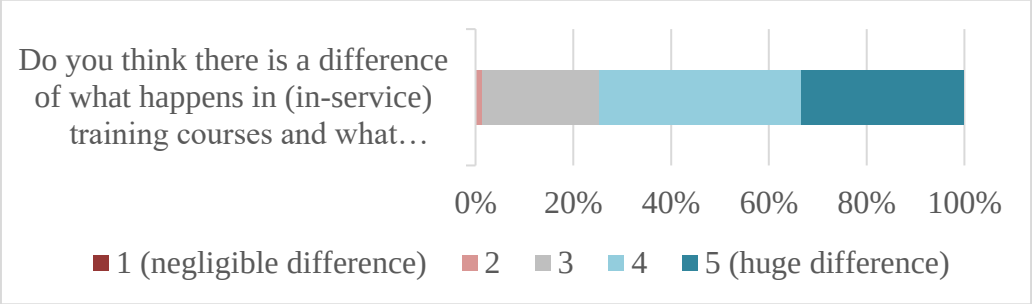


**Figure 4. 15 Difference between training courses and practice**

Most of the respondents (55) acknowledge that changes regarding ICT in state schools have not been introduced quickly. A clarification question was added for respondents who answered positively or "maybe" that changes took place quickly. Teachers point to lack of training for the up-to-date equipment in their schools, or insufficient facilities and equipment. The following open-ended responses were collected:

> "Digital applications without good Internet access"; "the use of computers and whiteboards"; "Classrooms were equipped with whiteboards but teachers had no training to use them" ;"The demand for ICT use was not efficiently supported by schools"; "Application of software"; "Whiteboards"; "I received no training"; "not with consistency"

More than half of the respondents (40) report that their schools seem to encourage and support teachers in using technologies in their lessons, while 18 answered negatively to this question and 17 responded "maybe" (see Figure 4.16).

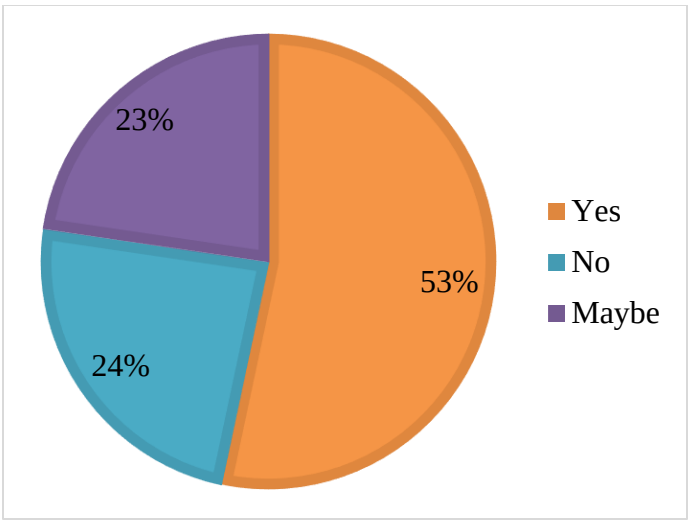


**Figure 4. 16 Do you think your school encourages and supports staff to use digital material and technologies in English classes?**

Most importantly, most respondents would like to receive further training on digital tools for ELT, as seen in Figure 4.17. Age, gender, years of experience, and educational setting (teachers working in primary or secondary education) seem to be independent variables in relation to teachers' preference for receiving further training in ICT; no correlations were found after comparing these data sets. The need for further training is expressed almost unanimously. The topics teachers would like to be trained on are shown in the Table 4.3.

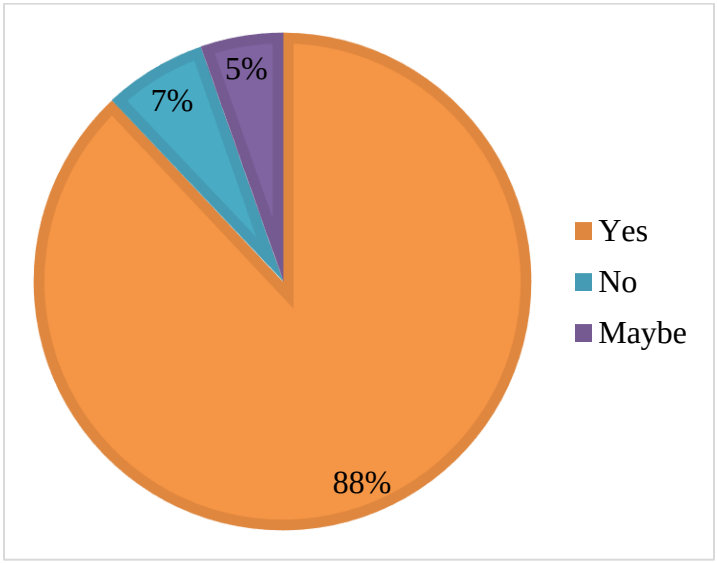


**Figure 4. 17 Would you like to receive further training on using digital tools for English language teaching?**

**Table 4. 3 In what aspects would you like to be supported/trained further?**

| Training on… | Percentage |
|---|---|
| using interactive whiteboard | 61% |
| using digital materials | 57% |
| available resources for ELT | 47% |
| how students can use ICT | 47% |
| how to choose and use digital materials for ELT | 51% |
| how to create my own digital materials | 72% |
| none | 3% |

The questionnaire ended with an open-ended question and invited teachers to offer any additional comments on the topic of ICT for English language teaching. Three comments related to further training and more materials. The rest were relevant to the technological equipment available at state schools. Five respondents point to schools' equipment and they comment that the present equipment is inadequate, partial, not updated or maintained properly. Poor funding is also underlined as a reason for inadequate ICT facilities. Teachers also expressed their wish for having fully technologically equipped classrooms for the teaching of English and computer labs available to them permanently.

## 4.2 Comparison of findings

This section aims to refine the findings of questionnaire by comparing them to aspects of the semi-structured interview findings. Through the semi-structured interviews, it became feasible to extract detailed information about interviewees' schools, their attitudes to Digital School and their training needs. The researcher identified five key themes from the study data: a) lack of ICT equipment, b) least and most popular technologies, c) lack of information and training on the Digital School and d) innovating attitudes from ESOL teachers. These themes are presented below and juxtapositioned with the trends reported from questionnaire data.

### 4.2.1 Demographic data of interviewees

Nine in-service English language teachers at state schools were interviewed. Four of the teachers work in primary schools whereas the other 5 work in secondary education. The table below gives an analytical description of the schools the interviewed teachers are employed in.

**Table 4. 4 Interviewees' current school**

| | |
|---|---|
| T1, T2, T3, T7 | Primary school |
| T8, T9 | Junior high school |
| T5 | Vocational high school (EPAL) |
| T4, T6 | Senior high school |

### 4.2.2 Lack of ICT equipment

In order to introduce the platforms of the Digital School in ELT classes, there are certain prerequisites that need to be met. School equipment is crucially important for the successful inclusion of digital materials and platforms in state schools.

As stated in Section 4.1, 74% of teachers had reported that the schools they worked in were equipped with a whiteboard and a projector. Only 27% of teachers had access to interactive whiteboard software. Through the interviews, it was clarified that only until recently had schools been equipped with whiteboards and computers.

There were also responses in the questionnaire referring to partial technological equipment at schools. Through the interviews, more issues relevant to ICT equipment emerged. Some classes had access to projectors, or teachers brought their own equipment at schools to cover for the lack of equipment. Two of the interviewees reported that the school equipment was obsolete as well, rendering it difficult to smoothly operate technologies in the classroom. Internet connection issues were also identified by interviewees. T6 mentioned slow internet connection and T4 points to absence of wireless connection in all classrooms. Only one interviewee had access to interactive whiteboard software, which they do not use, mainly because it takes valuable teaching time to calibrate the software. Therefore, teachers find it almost impossible to incorporate technology into their classrooms, as there is not always reliable equipment to support these practices.

Given the partial resources described above, it is therefore mostly impossible for teachers of upper secondary education to use the new books that were made available in 2018 for senior high school. The Institute of Educational Policy (n.d.) released chapters for the teaching of English in the first and second grade of high school (until 2018, students in senior high schools had to buy ELT publishers' books for the subject of English). These chapters are available in electronic form and could be printed out. The material in the books includes links to online resources, e.g. YouTube videos. Unreliable Internet connection, absence of projectors/computers render this material impractical. The interviewees that work in secondary education mentioned that they are fond of the new chapters uploaded by the Institute of Educational Policy as they touch on contemporary issues, relevant to teenagers. However, teachers around Greece are not given the opportunity to use such resources at school due to lack of proper or reliable equipment.

At the other end of the spectrum, two interviewees (T7 & T9) held they were content with the facilities available at their school. They mentioned that they had managed to have their own classroom for the teaching of English. T7 equipped their class technologically with

ICT tools not used by other colleagues after receiving their consent. T9 installed his/her personal equipment into the classroom (laptop and projector). These two teachers felt very lucky and content to have their own classrooms and use the equipment available. Other interviewees also expressed their wish to have classrooms especially dedicated to the teaching of English.

From the data above, it becomes evident that there is an uneven distribution of ICT resources across Greek schools. Therefore, it is likely impractical or even impossible to operate digital ELT resources provided by the Ministry of Education, even if teachers are willing to experiment with new material. Moreover, this assertion resonates with Celik & Aytin (2014), and Sotiriou (2012) who maintain that external factors such as lack of school equipment hinder ICT integration.

### 4.2.3 Least and most popular technologies

Questionnaire responses highlighted that videos and audio extracts were the most frequently used materials in the English language classrooms; this was also corroborated by the interview data. Interviewees showed a clear preference for materials such as audio extracts, videos and games. There seemed to be a special interest in material that provide listening practice and exposure to the target language.

Teachers explained how they use videos and why they are beneficial to the language learning experience. Interviewees use videos from Photodentro, YouTube, or even movie clips. According to them, videos “give us incentive to discuss them” (T2), “are good and supplement the book” (T7), and “students respond very well to them, and we have nice discussions” (T9). At the same time, teachers were aware that using some material on its own is not enough to teach students. Interviewees stated that videos should be combined with other activities in order to be meaningful and they also asked for materials that go beyond the videos.

The benefit of games for the learning experience was discussed, especially with interviewees working in primary education. Teachers were willing to use games and gamified exercises as their students seemed to enjoy them. Despite that, they were aware

of their limitations: “most of them are behaviourist…There isn’t a constructivist approach in the games” (T2).

Even though language learning applications attempt to offer more communicative practice, it is challenging for this technology to overcome its behaviourist nature (Heil et al, 2016). So far, technology has been used in state schools to offer further language drilling practice to the learners featuring filling-in-the-blank exercises and multimodal materials, i.e. videos, games, audio extracts, self-assessed tasks. “Even though behaviourist theory…came under a cognitive attack from Chomsky in 1964, strangely it is still discussed and compared to the now trendy and dominant constructivist model in modern CALL literature” (Alexander, 2007, p.2). According to constructivist theory, technology can offer unique opportunities for autonomous learning and collaborative practice (Beatty, 2003).

In general, teachers seemed to be aware of the limits of certain applications and they argued that they use the resources in a supplementary manner. They use digital materials to wrap up what has been previously taught or revise key points. Materials from Photodentro repositories can also be used “as a stimulus to do something else later” (T2). Interviewees almost unanimously agreed that they searched materials beyond the ones offered by the Digital School to meet their students’ needs. Despite the plethora of resources offered by the Ministry of Education, ESOL teachers do not always find this material suitable for their learners. It is the teachers themselves who decide how they will incorporate the available technologies irrespectively of national policies (Drent & Meelissen, 2008; Fu, 2013; Kozma, 2008).

Of all the Digital School platforms, questionnaire respondents had reported a higher perceived benefit and familiarity levels with E-books and Photodentro Repositories. Interviewees were asked whether they used these platforms and to comment on them. They mentioned that a major advantage was that material can be projected and thus engage the whole classroom. E-books “attract students’ attention” (T2) and teachers use these digital materials to give the class opportunities to work together on activities. Most importantly, interviewees found useful the embedded activities in the e-books (e.g. games) and the audio extracts to solicit extra practice.

Despite the benefits underlined above, teachers did not fail to point out certain limitations: "having the book in pdf format does not add anything pedagogically" (T2). There was also a relatively harsh critique for e-books: "Whatever I do from literature, I do it the traditional way; Unless I have a book in my hands, I don't feel like I'm reading. So, I will leave the e-books to the younger generation if you believe that they can be efficient; but I don't find that they are." (T6). E-books are an alternative way of viewing the material; some of the available e-books are also enriched and feature extra practice. However, teachers seem not to be particularly enthusiastic about them.

This criticism of e-books is in line with the skepticism expressed in the literature review regarding the benefits of educational technology (Kadiyala & Crynes, 2000; Schmid 2008, 2010; Warschauer, 2003). Providing alternative forms of the existing materials is not satisfactory on its own. Unless there are pedagogical benefits materialized in these tools, teachers seem to be more hesitant to use them.

Regarding Photodentro Repositories, 7 out of 9 interviewees expressed their awareness of these repositories and reported that they employ Photodentro materials in their teaching. They held that they found the material useful and motivational as the whole class is engaged and looking at the board when ICT activities are implemented. It was stated that it is helpful that materials in Photodentro are categorised according to learners' age. Nevertheless, there seems to be an agreement that most exercises appeal to younger learners and that the behaviourist practice offered by these materials better suits the needs of primary school students.

Despite the benefits outlined above, interviewees were concerned that most of the materials are designed in the Flash technology which has already become obsolete (Barret, 2017; Jobs, 2010). The need to technologically update the materials was highlighted, as many activities are not playable, or teachers reported difficulty downloading them. However, not only should materials be enriched from a technological point of view, it was stressed that the content should be updated as well. "New and more creative materials could be added, too. Even materials not based on the book …You cannot have a digital space that is static." (T4).

As confirmed by the questionnaire data, teachers seem to be less familiar with E-platform. It is surprising that only one of the interviewees (T2) had used and had known about the E-me platform, as this participant had been introduced to it through a Masters' course. The interviewee mentioned that the user interface was rather complicated and this is why she did not use it further.

Participants mentioned that they had never heard of the E-me platform mentioned by School Directors, colleagues or school counselors. It is rather surprising that teachers are not aware of a platform that was designed specially to enhance teacher and student collaboration in and out of the classroom. This brings us to the next key theme discussed during the interviews: training of ESOL teachers.

### 4.2.4 Lack of information and training on the Digital School

Teacher training is an important factor that can determine ICT integration by teachers (Celik & Aytin, 2014). In the questionnaire, participants reported that they felt rather neutral about the training they had received or about the preparation they had had for their teaching profession during their academic studies. In the interviews, teachers offered positive feedback about how certain training sessions had assisted them in their practice. For instance, interviewees stated that they had found most helpful the training they had received for the then new platforms of Digital School (this training was offered more than 5 years ago). They mentioned that these training sessions had given them incentive to experiment with technology more.

Three of the interviewees completed A and/or B level ICT training offered to in-service state schoolteachers (T4, T5, T7). They painted their experience from these training sessions in bright colors: "I was surprised with all the things a Greek language teacher could do with the interactive materials" (T5). During B level ICT training, which was conducted live and through Moodle courses, interviewees were educated on certain technologies and were then asked to create resources using these technologies; later, they were given feedback and evaluation of their projects. Teachers are willing to be educated further: "If other training sessions are held, I'd like to attend" (T7) and expand their knowledge.

What has been quoted above should not be taken as a confirmation that *all* in-service English teachers have had equal opportunities to ICT training. T6 reports that "every year, for 15 years now, I have applied for the A level ICT training and I have never been chosen". A level ICT training is available only to teachers who apply for it. Then all applications enter a lottery and only the randomly chosen teachers attend that training. The same applies for B level training. It needs to be underlined that B level training is available to English language teachers only since 2018. In the past, B level training was accessible only for other specialties. Developments concerning teacher training are slower for English language teachers than other specialties, such as primary school teachers or Philologists (Tzotzou, 2017).

Even those English teachers who had previously received extensive training acknowledged that training is not systematic: "I have a B level ICT Certificate but not for English, and not because I didn't want that, but because it wasn't given to English teachers as an option." (T5). There was concern that ESOL teachers' training is neglected as the teaching hours for the subject of English are limited in secondary education.

Interviewees make certain recommendations about how ICT training could be delivered. T7 suggests that "training is needed at least once a year for some hours so that they can show us what new materials are available." T4 argued that "the Ministry of Education could organize Moodle courses, if they cannot offer live training"; T7 points out that "attending these sessions is voluntary, you don't get paid for them nor do they happen during school hours". It becomes clear that teachers need more frequent training and they welcome different forms of training. Ideally, they would probably be more incentivised to attend training sessions if they did not have to sacrifice personal time.

As it has been noted, the Ministry of Education has failed to provide equal ICT training opportunities for all ESOL teachers. Moderators of Educational Design (former school counselors) have been assigned to organize training sessions (in Greek: "επιμορφώσεις") with educators in their jurisdiction. They are also expected to educate ESOL teachers on the new digital tools available. It is worth noting that during the interviews, teachers referred to them as "school counselors" (in Greek σχολικοί σύμβουλοι) and not

"moderators" (in Greek συντονιστές εκπαιδευτικού έργου), most probably because the change in title is very recent.

Interviewees were asked to comment on the content of those sessions. They mentioned that they had not received training on digital resources during them. T4 notes: "Of course we don't receive training …My own English counselor does not systematically train on new technologies; maybe because he/she feels that colleagues know these things or because he/she believes that they will not show interest in this". T6 explained that "…training sessions do not happen often because the school counselors pay the expenses themselves to visit our schools."

The teachers interviewed were aware of moderators' heavy workload and broad jurisdiction. One moderator may be responsible for all primary and secondary schools of one area and it is often the case that in training sessions, educators from all these schools are invited together. However, this can lead to certain issues as T6 observes: "we just gather for an hour and we just talk about our problems; we are not being trained …Training is insufficient, or even absent". This resonates with studies such as Kozma, (2008) Vanderlinde & van Braak, (2011) which highlight the need for individualised school visions. Every school context is unique, and the learning needs in primary education differ from those in secondary education. Moderators attempt to combine meetings with educators from both school contexts to manage their workload, but this makes these sessions problematic. Moderators end up covering the major basic issues and do not address individual teacher needs.

In the questionnaire responses, the demand for further training on digital tools was almost unanimous. On several occasions during the interviews, participants expressed their need not only for further training but also for specific guidance on how to implement ICT in their teaching. Interviewees stated that they would like further training on using digital platforms, practical advice on integrating technology in ESOL classes, and even training on technologies so that they could create their own resources.

From this analysis of training experiences, it becomes evident that the interviewees value specialised training they have received. Despite that, not all ESOL teachers have had access

to training (Tzotzou, 2017). The need for continuous development and more opportunities especially on the digital tools is required for all educators.

### 4.2.5 Innovating as educators

In their interviews, teachers stressed that state schools had been very slow in adopting new technologies and that comparing the Greek state school context to other European countries they felt that "we are way behind" (T1, T4). Their perceptions are consistent with the European reports of digital use and awareness in education, in which Greece seems to be less digitally mature (Balanskat, 2009; Wastiau, 2013). Interviewees were also aware of differences in the availability of ICT in private language institutions versus state schools in Greece. The technological changes in the public sector were introduced a lot later than in private institutions and at a slower pace.

While technology seems to develop rapidly, state schools are left behind trying to keep up with the new resources. Funding is not always allocated for schools to be equipped technologically. Most significantly, not all English language teachers have been given the opportunity to examine the Digital School. This is due to a lack of no proper equipment at their schools to implement these ICT tools or because they were never trained or informed on these technologies.

Nevertheless, the interviewees were positive towards bringing ICT into the classrooms. They believed they are pioneers and struggle with the limited resources available to provide an optimal educational experience. They stated that students themselves expect them to use technology in class and not conduct a lesson "in a standardised way" (T1). The interviewees acknowledge the benefits of technology integration in ELT classes. However, they warn that this should be done in moderation and according to the needs of their audience. For instance, T5 maintained that Teachers of English should "not get lost" in the technology" or, as T7 stated, "do lessons only through the computer" (T7). The interviewees seem to share the concerns of Warschauer (2003) and Voogt & Pelgrum, (2005) for sound ICT pedagogies and not just use technology to provide learners with alternative formats to already existing materials.

The interviewed teachers seemed to be rather creative and appeared to have a strong desire to t provide an optimal teaching environment to their students. T1 shared that “if we had proper guidance, we would have more willingness to use the new technologies”. On many occasions teachers had asked for specialised TELL classrooms dedicated to English language teaching: “It would be beneficial if English was taught in an environment, technologically enriched, and unique for ELT, where you could show different things to students, make crafts …” (T8).

Despite the barriers the ESOL teachers in this study had found in integrating technology, they seemed to be more than willing to follow in the footsteps of more ICT-progressive countries at this level. Given the right facilities and training opportunities, English teachers could transform the language learning experience of their students.

## 4.3 Management of Change in the Digital School

In this section the findings from the questionnaire and the interviews are used to make recommendations for the management of change in the Digital School. Several changes need to be made to the Digital School so that it can be more effectively used for teaching English.

### 4.3.1 Upgrade Digital Platforms

Teachers' positive attitude to incorporating digital materials was prominent in the interviews and in the questionnaire data. Nevertheless, teachers were not particularly content with the available resources of the Ministry of Education and they believed that these could be enhanced further from a technological point of view.

Particularly about Photodentro repositories, it is imperative that the learning materials are updated, and that more up-to-date technology is used. The Flash technology on which Photodentro is currently built will soon be outdated and the activities will not be playable (Barret, 2017; Jobs, 2010).

Usability is another key factor for efficient open educational materials (Haughey & Muirhead, 2005). Interviewees have mentioned having trouble and being confused when browsing the Photodentro and E-me platforms. It would be optimal if these platforms gathered feedback from users, e.g.: pages visited, session length frequency of visit, parts of the website used, search queries. Acquiring this data could assist web developers of these platforms in making the user experience more comfortable and engaging to the user.

### 4.3.2 Update content and textbooks

Through the data analysis, it became apparent that there are some serious shortcomings in the state school context and English teaching that go beyond the Digital School. Teachers in secondary education complained particularly about the non-attractive, not modern English language textbooks. Subsequently, they were not remarkably in favour of digital materials that are based on these books.

In senior high schools, the situation was even worse up until the beginning of the 2018-2019 school year as students had to buy ELT publishers' books for the subject of English. At Christmas of 2018, however, English teachers in senior high schools were sent some electronic material and textbook chapters uploaded for these classes. The interviewed teachers were very positive about this new material, as they found it up-to-date, relevant to their audience's needs and evoking critical, communicative skills from learners.

Despite this positive change, the book chapters released only cover the first and second grade of senior high school. The third grade has still no access to textbook materials from Ministry of Education and this needs to be resolved. Even if the printing process of schoolbooks takes considerable time, certain materials could be made available digitally. It is wholly unreasonable that up to now students had to buy their textbooks for English language teaching for the state school context. It is imperative that the Ministry of Education releases material for all grades of senior high school.

Similarly, the Digital School resources, the embedded exercises in the e-books and the Photodentro activities should be updated in terms of content. Teachers have called for more creative activities and exercises that require practice other than behaviourist drilling. To this end, the Photodentro Microsite for the English language could be updated with materials not be necessarily based on the book, which would provide teachers with pedagogically sound resources that they could use in their classrooms.

### 4.3.3 Teachers (and students) as creators

Photodentro repositories enable users to create and upload their own content. ESOL teachers could thus be motivated to act as creators, even including their students in the process or establishing competitions for best content. The i-participate contest[8], which has been running for two years now, is an excellent opportunity for teachers and students to propose their innovative practices in relation to Photodentro material. Such competitions could be made more specific and target the teaching of specific subjects, by awarding best practices for the teaching of English etc.

[8] http://photodentro.edu.gr/oep/#contest

Additionally, since the 2016-2017 schoolyear the Ministry of Education established the "thematic week" in secondary state schools to raise students' awareness on contemporary issues and sustainable development (Tsilifi, 2018). Teachers and students are expected to draw certain reports based on the knowledge acquired on the topic investigated each year. As an alternative, as an outcome of these weeks, educators could be instructed to create new content with their students on the E-me platform or Photodentro, enabling thus collaboration with other schools. In this way, up-to-date, authentic content could be added to these digital platforms. Sharing ideas, spreading knowledge on global issues could be solicited through the platforms of the Digital School, which can have a meaningful impact to the learning experience and promote cross-school and cross-region communication and collaboration.

### 4.3.3 Teachers as evaluators

Updating and upgrading both digital and non-digital learning materials is one of the concerns raised by all interviewed teachers. They believed that the material offered could be enhanced further to target their learners' needs. This belief resonates with McDonough & Shaw (2012) who maintain that teachers adapt available learning materials by taking into consideration contextual factors such as the setting and the learner characteristics. As it became evident through the interviews, teachers informally evaluate materials before or after they use them in the classroom based on their students' feedback and reactions. However, this could be done in a more formal way with in-service ESOL teachers who could assist in pre-use, whilst-use and post-use evaluation of the materials (Mishan, 2015).

In a recent research on English language textbooks in Greek primary state schools (Tsagari & Sifakis, 2014), materials design is found to be mainly a top-down process. The same study recorded "a mismatch between the perceptions of teachers and course book authors, which is rooted in the lack of clear perspective and strategic planning reflected both at the 'top' and at the 'bottom' of the national educational policy scale" (Tsagari & Sifakis, 2014, p. 219). To resolve this, teachers could be involved in pre-evaluation of materials and give feedback for most preferred resources according to their students' level and needs as proposed by Masuhara (2011).

ESOL teachers in Greek state schools are free to adapt, create and use their own content in their classrooms, as stated in the IFCL curriculum. Despite that, it would be preferable if teachers had a stronger voice in designing the textbooks used in their classrooms. A bottom-up material design process could be an alternative, especially in the stages of developing textbook materials. The time teachers spend in finding the right materials for their classrooms and adapting the existing materials could instead be allocated to providing valuable feedback to the course book authors.

Regarding evaluation of digital materials, post-evaluation of materials is already available for Photodentro learning objects. This option is only available to users with a Greek School Network account, i.e. by teachers employed in primary and secondary education. By briefly browsing the learning objects, one notices that there are no evaluations for them. If evaluating resources could be made available to a broader audience, e.g. student teachers, or teachers working at private education, this could lead to an abundance of feedback for these resources. User feedback is needed in order to improve the material already available and best meet the audiences' needs. Teachers using Photodentro to upload materials could also be required to evaluate existing resources based on an evaluation rubric before uploading their own.

### 4.3.4 (Re)equip schools technologically

This research highlighted that not all schools are equipped with projectors, computers or stable Internet connection. How are teachers expected to use the material made available from the Digital School or textbooks available only in electronic form? If the Ministry of Education provides state schools with digital books, then it must ensure that all schools have the appropriate supporting equipment to use these books. It is imperative that funds are allocated to schools to supply their classrooms with proper equipment or update the existing ones.

### 4.3.5 Systematic and holistic ICT training

It has become evident in this research sample that most teachers have little knowledge of certain Digital School resources, e.g. the E-me platform. This digital space offers teachers the possibility to construct their own resources and teaching materials, store files etc.

Interviewed teachers had also expressed their wish to create their own materials; however, they had not been trained to do this, or they were not aware that this can be done through the E-me platform. It is crucial that the E-me platform becomes widely known to teachers so that they could evaluate its potential. This could be achieved through intervention studies or meetings with educators so that the latter are shown what could be achieved through E-me platform.

Through the interviews and the literature review it was also evidenced that A and B level ICT training is not available to all teachers of English. In-service state school English teachers may apply for ICT training, but the participants are chosen randomly, through a lottery process. As a result, teachers apply year after year, but they might not be chosen. It is crucial that equal opportunities are given to all teachers and that ICT training is open to everyone. Even if it is difficult to hold live training sessions, Moodle training sessions or video tutorials should be made available to teachers.

As it became clear in the review of current educational policies and in the interviews, state schoolteachers have some kind of access to training. These training sessions are usually meetings where teachers from all school levels (primary and secondary schools) of a district all gather together to discuss crucial issues with the moderator of education design. Meetings usually happen once a year and educators mention that no actual training takes place. Instead educators meet with the moderator to discuss crucial local issues. It is imperative that meetings where local issues are discussed are separate from training sessions, and that the latter are more frequent and organised.

It was also mentioned that the frequency of training sessions depends on the availability and workload of moderators of educational design. For this reason, more personnel must be employed into the centres responsible for educational design. More moderators must be appointed so that they can visit and provide frequent training to all schools in their jurisdiction. Alternatively, other bodies should be responsible for training so that moderators focus on local needs. Finally, moderators should receive funds explicitly for the expenses of training sessions, which are currently self-funded.

### 4.3.6 Hands-on teacher preparation

The analysis of interviews highlights the need for constant, long-term and up-to-date ICT training of English state schoolteachers. Prospective English language teachers must be exposed and educated on the available digital resources, before they are employed in state school contexts. This should be done in a holistic manner and in all universities that prepare graduates for English teaching. For instance, The National and Kapodistrian University of Athens does not offer any practically oriented courses on the Digital School, even though it has contributed to its implementation. There are few courses on teaching English methodology and most of them remain theoretical with little reference to technology and the current updates specific to the Greek state school context. Some university departments that train language teachers have compulsory ICT workshops, however, these intend to build digital literacy skills and not train on how to use technology in classrooms (Bikos & Tzifopoulos, 2012). There is inadequate actual training in state school context and zero hands-on experience on the Digital School, even though the programme has been running for almost a decade now.

It is of vital importance that Universities in Greece enrich their syllabus. Technology enhanced language learning (TELL) courses should not only be part of Master courses but also part of every prospective foreign language teacher or available to pedagogical departments. The syllabus should not only include instruction on the foundations of TELL and theoretical approaches to Educational Technology but offer practical experience to the student teachers, which is much needed (Tzotzou, 2017).

The practical component is lacking not only in Universities but in teacher training seminars and meetings organised by moderators of educational design, former school counselors, or other teaching English communities and associations. This lack blocks teachers from identifying the tools that could be optimal to their teaching, even when those are available to them. Most importantly, were teachers educated on these resources, they could meaningfully evaluate and enrich content of these resources by offering feedback on what they perceive as beneficial.

## Summary

This section presented the findings from the questionnaires and the interviews. The sample of respondents seems particularly positive towards technology use for English language teaching. However, the need for further teacher training on ICT is unanimous, confirming points raised in the literature review. Interviewed teachers do seem to strive to provide their learners with innovative methods and technologies, even when their schools' infrastructure cannot support ICT integration effectively. Given this feedback from educators, proposals for the management of change were made that could lead to the successful implementation of the Digital School. Upgrading the educational platforms and school facilities is crucial. Simultaneously, digital (and non-digital) educational content, e.g. textbooks or open educational resources, should be modernised and ESOL teachers could be included in the process of designing and evaluating content. The following section summarises the research, discusses how realistic these proposed changes are and concludes with ideas for future work.

# Chapter 5 Implications & Conclusions

Coming back to the purpose of the study, this Section offers a synopsis of the research and negotiates the feasibility of the suggestions for the management of change for the Digital School.

## 5.1 Overview of the study

The main purpose of this Thesis was dual: a) to analyse teacher attitudes to recent ICT developments for ELT in state schools and b) to draw tentative recommendations for management of change based on the data received. The literature review discussed European policies of ICT integration and showed that teachers are the catalysts that enable meaningful use of technology in education. Nevertheless, access to resources or training is not always available to implement the technology enhanced curricula in state schools.

Following a mixed-methods approach, which involved questionnaires and semi-structured interviews, the Greek context was investigated in relation to ESOL teacher attitudes towards and training for the Digital School. Through the data collected, it became evident that the participants of this research were generally supportive of the Digital School and ICT innovations. They realised the benefit of employing digital resources in a technologically enriched era and are willing to follow the footsteps of other European countries, which have achieved considerable progress in this sector. However, the participants were aware of certain limitations that exist in the Greek state school including: insufficient funding from the Ministry of Education to technologically equip state schools, limited resources and non-systematic training. For this reason, proposals for the management of change were made to alleviate the current issues of the Digital School; these are discussed below.

## 5.2 How realistic are the management of change suggestions?

Drawing from the data analysis, Section 4.3 made certain management of change suggestions that could reinforced the Digital School vision. Certain changes might take

long to be implemented and require funds, while others are already on the governmental agenda.

Updating the digital platforms, especially Photodentro Digital repositories is of major importance. This task is already assigned to the Institute of Technology, Computers and Publications, Diofantos. It is co-funded by the Greek government and the European Union and will be completed by the end of September 2019. According to the agenda of Digital School II (n.d), Photodentro Open Educational Resources will be updated, and state-of-the-art search engines will be incorporated. Also, more content will be made available with new enriched e-books, and new contests that could motivate teachers to engage with technology will be announced.

Improving the digital resources might be an easier task and will hopefully be completed soon. However, updating the current textbooks or creating new ones might prove time-consuming, given the publishing process as well. The Ministry of Education could release certain textbooks online, as was the case with the English chapters for the first grades of senior high school, before delivering them in print to schools.

What might prove harder to implement is ensuring that all state schools are equipped with the required technology, i.e. projectors and computers for all classrooms. Allocating the funds to either instal new or restore obsolete hardware is challenging as Greece still suffers from economic austerity measures. Based on reports by the Foundation of Economic & Industrial Research (2019), the government prefers to reimburse personnel and keep the salaries at almost the same levels than use expenses on educational infrastructure.

Taking these into consideration, systematic and holistic ICT training of teachers might be even more demanding to achieve as it requires funds for both personnel, e.g. trainees, and infrastructure, e.g. computers, and centers where educators could be trained. A sustainable solution to this problem would be to offer training to ESOL teachers through Moodle or other LMS courses and video tutorials.

The changes mentioned above require a substantial investment in funds and time, in order to be implemented. Nevertheless, certain actions such as the Photodentro contest, if they were expanded or made specific to the teaching of English, could reinforce ESOL teachers'

motivation to enhance technology. As argued earlier, having national policies to make ICT integration compulsory does not really influence teachers' decisions. Teachers will implement technology when they see and experience its benefits.

Therefore, the Ministry of Education needs to shift its focus from changing the curricula to giving more knowledge and professional development opportunities to teachers. Empowering teachers by including them in the production, design and evaluation of materials could certainly lead to updated and relevant content for the students. To accomplish this, however, teachers will need some motivation and additional time. Even if teacher salaries cannot be increased due to the austerity measures in Greece, teachers could be rewarded for doing such work with points on the national system for wage and employment negotiations. This could act as a powerful motive to engage teachers in hands-on, innovative technologically supported practices.

Finally, engaging teachers in a bottom-up approach for the design of digital material (e.g. via the E-me platform) is more likely to motivate them in the prolonged use of ICT in the classroom. Finally, opening the evaluation of materials to the broader public (e.g. students, parents or private school teachers) could also provide materials designers with valuable feedback faster and in larger volume.

## 5.3 Limitations and Future work

There are certain limitations tied to this research and its design. The sampling procedure (convenience and voluntary sampling) cannot guarantee generalisable results, which is also true due to the limited sample of teachers (75 respondents). Most importantly, as it was highlighted through our results, there seem to be certain differences across the school levels. As the needs of the audience and learners change from primary to secondary education, teachers' attitudes to digital resources also differ substantially. It is therefore needed to explore teacher attitudes' and effectiveness of such tools by focusing on only one level of education. The voluntary sampling is also expected to skew the findings towards a more favorable view of ICT in education, as teachers not aware of or not interested in the topic of Digital School would simply opt out, or even not be connected to social media where the questionnaire was primarily promoted.

Furthermore, as there is no academic research on the impact, effectiveness or attitudes to Digital School in relation to ESOL teaching, it was difficult to narrow down this research to a specific aspect of the Digital School. The research investigated the different platforms provided by the Ministry of Education. As a result, the research objectives were quite broad.

This study focused on teachers' beliefs and use of ICT. It is necessary, though, for the implementation of successful teaching strategies to also measure students' attitudes to the incorporation of ICT in English language teaching. As it has been proven by research on Digital School in relation to other subjects, students (and teachers) have little awareness of the resources available to them. Therefore, an interventional study and focus-group interviews would be ideal to get more accurate results. If teachers and students are made aware of the different tools, they will be able to offer more detailed feedback on the resources.

## 5.4 Final Remarks

Teachers need to be aware of the available technology and smoothly integrate it into their teaching as learners of 21st century are digital natives. Students are exposed to the Internet and screens daily. As a natural next step, teachers should strive to meet the needs and address the interests of their audience. The goal should not be to bombard learners with more technology. The ICT resources used in a language classroom should aim not just to enhance the language learning experience but rather transform it and provide opportunities to the learner that would be unthinkable or unfeasible without the use of technology (Puentedura, 2010; Warschauer, 2003).

A long-term vision of Greek learners being taught foreign languages should not be restricted to multimodal experiences in order to surprise the learner or provide endless drilling exercises. Young children and teenagers are very aware of the digital wonders and capabilities of technology, as they were born in an era full of digital applications. Thus, it is unlikely that ICT in ELT will surprise the learners or engage them. Digital tools and resources should be designed to introduce learners to modern pedagogies, and move away from behaviourist, grammar-translation teaching.

Technology can be used to foster collaboration in and out of the classroom and to establish new roles for the teachers and learners. The current tools available from the Ministry of Education can offer such constructivist learning, despite some of the more outdated components. For instance, project collaboration and cooperation with other schools (local or foreign) could be reinforced through the E-me platform. The possibilities of such tools remain to be explored, by thoroughly guiding the teachers and educating them on making sound pedagogical decisions.

Despite the shortcomings found, the Ministry of Education seems to be ready for new changes in the educational sector. This Spring, for example, while this Thesis was being written, new calls for A and B level ICT training were made. Schools were also recently invited to apply for funding to upgrade or instal ICT equipment in their facilities. As interviewees mentioned, every year the situation is better.

As technology becomes outdated rather quickly, continuous professional development and training courses are imperative to keep ESOL teachers up to date with the contemporary tools and applications. Researching the effectiveness of technology enhanced teaching practices is also essential to the development of best practices and lead to improvement of current ICT tools to best serve pedagogical and language learning needs. “If we teach today as we taught yesterday, we rob our children of tomorrow” John Dewey.

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# Appendix A

**The Questionnaire**

# Questionnaire on the use of digital materials in English Language Teaching

*Thank you for completing this questionnaire. Please complete it as fully as possible and return it to me or my school contact. The data collected from this survey will be part of my MA Thesis at the University of Nicosia. The topic of my Thesis revolves around teacher views on the use of digital materials in the English Language Teaching (ELT) classroom. Specifically, I would be grateful if you could provide your views and feedback on digital materials supplied to you by the Ministry of education as part of each "Digital School" (Ψηφιακό σχολείο) project I will share the results of my research to any party that is interested.*

* Required

**Important note:** I am interested in having follow-up interviews on this issue. Please write here your contact details (phone number/e-mail) if you wish to be further interviewed on this topic:

Email/Phone Number: _____

## Part 1: About you and your school

1.1 Gender *: Female Male Prefer not to say Other:

1.2 Age *: 21-30 31-40 41-50 51-60 61+ Prefer not to say

1.3.1 What school do you work in now? Circle.*

- Primary school
- Secondary school (γυμνάσιο)
- High school (λύκειο)
- Private language institution (φροντιστήριο)
- I don't work now
- Other (please specify):

1.4 I am a graduate in (Circle): * English Other (please specify):

1.5 How many years of teaching experience do you have? Circle. *

0-1 years 2-5 years 5-10 years 11-20 years more than 20 years

1.6 How many years of English teaching experience do you have? Circle. *

0-1 years  2-5 years  5-10 years  11-20 years  more than 20 years

1.7 Do you have any special qualifications/training for English? If yes, please specify:

_____

1.8 How many years have you been at your present/previous school? *_____

1.9 Do you intend to continue teaching at your present school?

Yes  No  Maybe  Prefer not to say  Other (please specify):

1.10 Is your present school equipped with a whiteboard and projector? *

Yes  No  I am not sure  Other (please specify):

1.11 Is your present school equipped with interactive whiteboard software for the teaching of English? *

Yes  No  I am not sure  Other (please specify):

1.12 Does your present school offer IT support to teachers/students? *

Yes  No  I am not sure  Other (please specify):

## Part 2: Attitudes and Use of the digital resources and ICT in ELT classrooms

2.1.1 What is your current position on using ICT in English language classes? Please circle a number. **(1) means strongly opposed (5) means strongly supporting** *

1  2  3  4  5

2.1.2 Where do you find the digital materials you use for English teaching? Please circle all that apply. *

- I do not use digital materials in my class
- On the Internet
- Online resources of The Ministry of Education
- From fellow teachers
- I design my own digital materials
- From my ELT publisher(s)
- Other (please specify):

2.1.3 How often do you use the below listed digital materials? Check the appropriate boxes. Provide one answer for each row: *

| | Never | Sometimes | Frequently | Daily |
|---|---|---|---|---|
| Audio extracts | | | | |
| Glossaries | | | | |
| Picture Dictionaries | | | | |
| Comics | | | | |
| Games (educational) | | | | |
| Self-assessed tasks/tests | | | | |
| Digital Stories | | | | |
| Songs | | | | |
| Videos | | | | |

2.1.4 To what degree do you believe that the digital materials below can enhance the English language teaching/learning experience? Check the appropriate boxes:*

| | Not at all | A little | I am not sure | Quite a lot | Very much |
|---|---|---|---|---|---|
| Audio extracts | | | | | |
| Glossaries | | | | | |
| Picture Dictionaries | | | | | |
| Comics | | | | | |
| Games (educational) | | | | | |
| Self-assessed tasks/tests | | | | | |
| Digital Stories | | | | | |
| Songs | | | | | |
| Videos | | | | | |

2.1.5 To what degree are you concerned about the use of the following digital materials in your English language class? *

| | Not at all concerned | A little concerned | I am not sure | Quite a lot concerned | Very much concerned |
|---|---|---|---|---|---|
| Audio extracts | | | | | |
| Glossaries | | | | | |
| Picture Dictionaries | | | | | |
| Comics | | | | | |
| Games (educational) | | | | | |
| Self-assessed tasks/tests | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Digital Stories | | | | | |
| Songs | | | | | |
| Videos | | | | | |

2.1.6 Do you encourage your students to use digital material at home? *

Yes No I am not sure Other (please specify):

## Digital Materials in State schools

2.2.1 To what degree are you familiar with the "Digital School" project (Ψηφιακά Σχολεία) running by the Ministry of Education? Please circle a number: **1 (not at all) to 5 (very much)** *

1 2 3 4 5

2.2.2 To what degree are you familiar with the digital platform http://ebooks.edu.gr/new/ (διαδραστικά σχολικά βιβλία) that features (interactive) e-books for all courses taught at public schools? Please circle a number: **1 (not at all) to 5 (very much) ***

1 2 3 4 5

2.2.3 To what degree are you familiar with the digital social platform https://e-me.edu.gr (Ψηφιακή Εκπαιδευτική Πλατφόρμα e-me για μαθητές και εκπαιδευτικούς) provided by the Ministry of Education, where learners and educators can communicate and collaborate as well as store files? Please circle a number: **1 (not at all) to 5 (very much) ***

1 2 3 4 5

2.2.4 To what degree are you familiar with the Photodentro Microsite for English, a site designed for English Language Educators featuring material relevant to the teaching of English (e.g. educational activities, games and videos)? Please circle a number: **1 (not at all) to 5 (very much) ***

1 2 3 4 5

2.2.5 To what degree are you concerned about using these platforms? *

| | Not at all concerned | A little concerned | I am not sure | Quite a lot concerned | Very much concerned |
|---|---|---|---|---|---|
| E-books (διαδραστικά σχολικά βιβλία) | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| E-me (Ψηφιακή Εκπαιδευτική Πλατφόρμα e-me για μαθητές και εκπαιδευτικούς) | | | | | |
| Photodentro (Φωτόδεντρο) | | | | | |
| Photodentro microsite for the English language (Φωτόδεντρο, μικρότοπος για την Αγγλική Γλώσσα) | | | | | |

2.2.6 To what degree do you believe these platforms are beneficial to the teaching/learning of English? *

| | Not at all | A little | I am not sure | Quite a lot | Very much |
|---|---|---|---|---|---|
| E-books (διαδραστικά σχολικά βιβλία) | | | | | |
| E-me (Ψηφιακή Εκπαιδευτική Πλατφόρμα e-me για μαθητές και εκπαιδευτικούς) | | | | | |
| Photodentro (Φωτόδεντρο) | | | | | |
| Photodentro microsite for the English language (Φωτόδεντρο, μικρότοπος για την Αγγλική Γλώσσα) | | | | | |

2.2.7 Do you encourage your students to use any of these platforms? *

| | Yes | No |
|---|---|---|
| E-books (διαδραστικά σχολικά βιβλία) | | |
| E-me (Ψηφιακή Εκπαιδευτική Πλατφόρμα e-me για μαθητές και εκπαιδευτικούς) | | |
| Photodentro (Φωτόδεντρο) | | |
| Photodentro, microsite for the English language (Φωτόδεντρο, μικρότοπος για την Αγγλική Γλώσσα) | | |

## PART 3: Perceptions regarding training and preparation required

3.1 In your opinion how much preparation/teacher training have you had on using digital tools in ELT classes? Please indicate your training on a scale **1 (not at all) to 5 (very much)**

1 2 3 4 5

3.2 What body was responsible for the training you received? Circle all that apply *

- Ministry of Education
- University/College
- ELT publisher
- Teacher Association
- None
- Other:

3.3 What form did the training/preparation take? Circle all that apply. *

- meetings
- seminar
- teacher observation
- lectures
- other activity
- no activity

3.4 Did the training you receive help you improve your teaching in English? Please indicate on a scale **1 (not at all) to 5 (very much)** *

1 2 3 4 5

3.5 Do you think the initial teacher training you received from your college/institute/university prepared you well for your ELT profession? Please indicate on a scale **1 (not at all) to 5 (very well)** *

1 2 3 4 5

3.6 Do you think your school encourages/supports staff engaged in implementing ICT in English language teaching classrooms? Please indicate on a **scale 1 (not at all) to 5 (very much)** *

1 2 3 4 5

3.7 Do you think there is a difference of what happens in (in-service) training courses and what subsequently happens in lessons? Please indicate on a scale **1 (negligible difference) to 5 (huge difference)** *

1 2 3 4 5

3.8 Do you think that changes regarding ICT use in schools have been introduced too quickly? *

Yes No Maybe Other (please specify):

3.9 If you answered "Yes" or "Maybe" in the above question, what changes were introduced quickly? Answer shortly. *

_____

_____

3.10 Do you think your school encourages and supports staff to use digital material and technologies in English classes? *

Yes No Maybe

3.11 Would you like to receive further training on using digital tools for English language teaching? *

Yes No Maybe

3.12 In what aspects would you like to be supported/trained further? Circle all that apply. *

- using interactive whiteboard software
- using digital tools (i.e. projecting videos, presentations, texts)
- information on the available resources for the teaching of English
- learning how students can use these tools at home
- learning how to choose and use digital materials in the ELT class
- learning how to create my own digital materials
- none
- Other (please specify):

3.13 Is there anything you wish to add regarding use of ICT in English language classrooms?

_____

_____

_____

**Thank you!**

# Appendix B

**Consent form for participation in research interview**

"Digital materials in ELT state school classrooms in Greece"

I agree to participate in a research project conducted by Stamatia Savvani, Master student at the University of Nicosia, Cyprus, as part of her Master Thesis.

1. I have been given sufficient information about this research project and I understand my role. The purpose of my participation as an interviewee in this project and the future management of my data has been explained to me and is clear.
2. My participation as an interviewee in this project is voluntary. There is no explicit or implicit coercion whatsoever to participate.
3. The interview will last approximately 15-20 minutes. I will allow the audio-recording of the interview. It is clear to me that in case I do not want the interview to be taped I am fully entitled to withdraw from participation.
4. I have the right not to answer questions and if I feel uncomfortable in any way during the interview session, I have the right to withdraw from the interview.
5. I have been given the explicit guarantee that the researcher will not identify me by name or function in any reports using information obtained from this interview, and that my confidentiality as a participant in this study will remain secure.
6. I understand that my words may be quoted in publications, reports, web pages, and other research outputs, without identifying my name or personal details.
7. I have been given the guarantee that this research project has been reviewed and approved by the University of Nicosia.
8. I have read and understood the points and statements of this form. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study.
9. I have been given a copy of this consent form co-signed by the interviewer.

_____ _____

Participant's Signature Researcher's Signature

# Appendix C

**Semi-structured Interview Guide**

Start off with neutral questions:

1. What school do you currently work in?
2. What is the existent ICT equipment in the classrooms?
3. Do you use the equipment available? Do you find it useful for ELT?

Move on to attitudes and opinions:

4. How do you feel about using ICT in ELT classes and why?

5. **How do feel about ICT tools offered to you by the Ministry of Education (digital books, e-me platform, photodentro, photodentro microsite English**). Do you use them and why (not)?

6. How often do you use digital materials? What types do you prefer and why?

7. What digital material or their aspects do you find most useful for ELT and why?

8. **Do you think you need more training on how to use the available digital materials?**

9. **What aspects would you like to be trained further on?**

10. **Do you have any other comments on technologies designed for ELT?**

# Appendix D

**Partial Transcripts** **I=Interviewer T=Teacher**

**Interview with Teacher 1**

*I: What school do you work in?*

T1: I have been working for 10 years in the field of education and this is the first time we have a projector in every class. In every class there is a computer connected to a projector. There is no interactive board or software, but we have a whiteboard.

*I: Are you familiar with e-books, Photodentro material or the E-me platform?*

T1: I intend to use e-books more. But I don't know the Photodentro materials or the E-me.

*I: "Do you think that using e-books or digital materials would help your teaching?"*

T1: E-books would help, but I haven't got a holistic view on that as I haven't used them. What I want to definitely do is some exercises for all the classes, more like gamified exercises and fun activities; as I give my own extra material to students, I would like to supplement my lesson with some easy, gamified exercises and see how it goes. I think digital materials could help when revising the syllabus, not during teaching new concepts. I don't think that they could help with introducing something new, but with consolidating what I have already taught.

I*: You mentioned that you want to start using the digital tools that are offered by the Ministry of Education and other sources I guess, what is the reason that influenced you?*

T1: I want to be part of the modern era and make students love the lesson that takes place in the state school. I don't want them to feel that I do the lesson in a standardized way.

*I: How do you feel about your training relating to using digital tools?*

T1: There is very little guidance. The school counselor invited us 3 years ago and invited us this year, too. I am a substitute teacher, so every year I go to a different school. No, I do not feel that there is guidance, I am not at all content with this part. On no account do I feel that I have support, feedback and encouragement. Certainly not.I have attended seminars,

and I didn't get much out of them. Whatever I do from now on, I will depend on myself because there hasn't been anything that's organized. One meeting a year doesn't mean much to me. We are way behind with teacher training and everything stems from there. I will speak for myself, not for everyone, even though I don't think that I am very different from other colleagues, from what I hear. If we had proper guidance, we would have more willingness to use the new technologies and digital tools. If we knew how to use them; because it is not only the video. All educators would like to use these tools, but they are discouraged from the lack or absence of guidance. That's what I would like to change, so that we can follow in the steps of developed countries. I believe that we are way behind. Way behind.

**Interview with Teacher 2**

*I: What kind of technological equipment is there at the schools you work?*

T2: There's a projector and a computer in every class. There's an interactive whiteboard in one of the schools I work in. I only use the projector. I rarely use the interactive board as it has many problems; it lags very often. Most of the time is spent trying to make it work and align it; so, I have decided not to use it. I have given up on it long time now.

*I: Do you think that e-books are helpful to the teaching of English?*

T2: They are helpful as you can project them, and we don't spend our time looking for the right page and exercise. They attract students' attention. From a pedagogic viewpoint, they are not that helpful; they do offer some extra materials but having the book in pdf format does not add anything pedagogically. It is only for getting their attention and knowing where we are. Some extra games that are available, such as games or the add-ons in the enriched books by the Ministry of Education, I use them, but I cannot say that they are the best, I think they are not that helpful.

*I: Regarding the materials in Photodentro, do you find the material useful?*

T2: There's this feature in Photodentro, before you open the activity to use it, it gives you information about the skills and learning objectives for it. There are some interesting activities there. I usually use the activities as a stimulus to do something else later. I am

never content, nor do I restrict myself to the activities in Photodentro. If I had the book and nothing else though, then yes, Photodentro material is a great deal helpful.

*I: What are the materials that you use most often?*

T2: Mostly videos, because students respond to these better, depending on the content. And games, but most of them are behaviorist. My students may respond to these, but I do not like them as they don't have the desirable educational outcome that I want; they are a simple revision or rote repetition exercises of vocabulary. So, at the end the student may know what the word means, but not how or when to use it. There isn't a constructivist approach in the games. My students like the videos a lot and they give us incentive to discuss them. But videos on their own are not sufficient. You should combine them with something else.

*I: What's your opinion about the e-me platform?*

T2: We had looked into the e-me platform only during my Master studies. I think that I was confused by all the information on the platform, it wasn't well organized- I'm not sure why, but I found it complicated and didn't really like it…No one has introduced use to the e-me platform, only in my Masters'. When we discuss in our in-service training sessions, we take everything for granted. I do not remember if I learned about Photodentro and the other platforms through the training sessions or if I had found out and explored them about it myself.

*I: Do you feel the training you have received has prepared you for using ICT?*

T2: Most of the times in training sessions (for in-service teachers), we take things for granted. I feel that I am properly trained for that, but I can't remember whether the knowledge I have acquired it from training sessions or somewhere else… I do know, though, that the content of training sessions is pretty repetitive.

*I: How often are the training sessions?*

T2: That depends on the availability of the school counselors. For example, one school counselor for the teaching of English may be responsible for all schools in compulsory and

secondary education in a district in Greece. As you may realise, this does not leave the counselor with sufficient time to organize training sessions… There were school years when we had only one or two training sessions….

*I: Have you been trained in ICT (A or B level ICT training)?*

T2: No, I haven't attended ICT training… but in theory, I was trained by the principal from a former school I was working, who was a certified trainer for ICT but I learned nothing new as I was already familiar with digital tools in the private sector…Digital materials were used in the private sector long before the state schools. I remember during 2009-10 we were talking about interactive whiteboards and computers and people thought that it would be surreal for all classes and schools to be equipped with whiteboards and technology and I remember myself telling them that in the private sector we take these for granted. I always made the comparison.

**Interview with Teacher 3**

*I: What equipment is available at your school?*

T3: The equipment we had from the past was insignificant and even during the last 10 years there were only 2-3 laptops that we were carrying them from floor to floor so that the educators could use them interchangeably. Now, since this year, in every classroom (12 classrooms) there is a desktop computer or laptop and of course a projector, which makes our life easier, and Internet connection… There isn't an interactive whiteboard; there was the intent to have one but financial reasons got in the way. Every state school is funded by the Ministry of Education and the State; apparently, the necessary funds weren't allocated so we don't have one"

*I: Do you use the computers or the projector? Do you find them helpful?*

Interviewee: "Yes, I use them every day with all classes. They help a great deal with teaching of English. It is not that the children learn better, that might be the case too. The best part is that the children are more concentrated and there is not much noise in the class. At the same time, they can come up to the board and do activities, and they are more motivated that way.

*I: Do you use the digital materials in Photodentro? Do you find it useful?*

T3: I use Photodentro, because all books for the primary school especially for classes 3rd to 6th have the Photodentro mark and I can easily identify them and work on there. Most of the times I use activities from Photodentro, especially as a follow up of what we have already done in class… It is very useful, because it wraps up what we have already done, it gives students a general picture and the students understand better what they have learnt. But also it is a motive for them because they come to the board and do activities and what they do is projected on the board and the whole class is looking at the board. In general, students are very content with the activities of Photodentro.

*I: Are you familiar with the E-me platform?*

T3: No, I don't know it.

*I: Does the Ministry of Education inform you of these tools and how?*

T3: Regarding training, about 10 years ago there was a seminar on the New School, which was about English and the teaching of English through technology… The main issue with the New School was that many colleagues lost a part of their summer attending seminars, doing activities and being evaluated on their work, with the intent to use the material developed in the future. I am not aware what's happening in secondary education but in primary schools there isn't any change since then. We, educators and teachers of English are the ones who bring the newest developments at primary schools. If we wish to make our lessons more interesting, we are free to do it, our counselors encourage us to do so. Personally, I do new things that do not follow the conventional way of the book.

*I: How often do you have contact with school counselors?*

T3: The English counselors have now more schools in their jurisdiction and thus they have a heavier workload than other school counselors; they come to schools only when the teachers ask so. There were times when I needed the school counselor and they came, and we have a very good cooperation. Mostly, they call us altogether to seminars regarding educational practices.

*I: Regarding digital tools do you need further training from the Ministry of Education?*

Interviewee: I would like a bit more training on practical topics, such as how to use good educational websites and how to integrate them into our teaching. And most importantly it would be best if every student had a laptop at school, so that they don't have to carry a schoolbag and store everything in the computer, instead. And of course, we as educators should be given laptops, so that we don't carry ours to school. In many circumstances, I brought my personal laptop to school.

*I: I understand that you are positive regarding technology inclusion in education, would you like to offer a general comment?*

T3: Educators around the world design things for English teaching and create their own webpages and we see that they are very innovative. It is time we had this material in our schools. I have been teaching English for 40 years now, every time things are better; they are never worse. However, we are never ahead, always the technology is ahead of us and the state schools are followers, not pioneers. Pioneers are mainly the teachers of English

**Interview with Teacher 4**

*I: What technological equipment exists for the English classroom at your school?*

T4: We don't have a particular class for the teaching of English. Also, evening schools depend on the equipment and facilities of the morning school. I would like to have my own classroom for the teaching of English, but I would depend on the intentions of the morning school. Regarding technological equipment, some classrooms have projectors; they're not the latest technology, but they are functional. The ICT labs are the only classrooms that have access to the Internet. I find this rational since there is concern of misusing wireless connections from the students in the morning school. In theory, in Greece, students are not allowed to use cell phones during school time.

*I: Do you use the projector or the computer in your class?*

T4: Yes, but they are obsolete and most of my colleagues bring their own laptops. I have brought my laptop to school sometimes. I haven't used the projector, though. From a

practical viewpoint, I find it inconvenient as you have to connect, disconnect, let the projector cool down and this should be done during break time and there isn't much time for that. I would use a computer if it was working and there was safe Internet access.

*I: Regarding the digital tools of the Ministry of Education, e-books, do you use them?*

T4: I have used them when I was working in the morning school (junior high school). I don't use them for the evening school (senior high school) because the two books that we use are digital but not enriched with additional materials… Regarding the digital repositories, Photodentro, I could use it for the evening school regarding the teaching of tenses, for example. However, they require access to the Internet that I do not have.

*I: When you were in the morning school did you use Photodentro, was it useful?*

T4: It was practical as the audio extracts were in the interactive book so I didn't have to have a CD player to do the listening exercises. The additional materials that are there were also useful for extra practice… What needs to be underlined for Photodentro, which wasn't the case back then, but applies totally now, is that it is not updated and practically speaking most of the materials are designed in Flash, which is a technology that would gradually not be in use soon. The materials must be updated. I was doing a project and it took so much effort; although I had downloaded Flash, it wasn't working; some of the files are .swf files, which I have used, but they are troublesome… There are also references to activities from the British Council; yet, the British Council has added more things since then, and there are other sites and resources beyond the British Council; however, the resources have not been updated.

*I: Have you used the e-me platform?*

T4: No, I haven't. But I'd like to find out more about it, if it's worthwhile

*I: Would you like to be informed more on the digital resources?*

T4: I would like to be further trained on digital tools, because there might be possibilities that I am not aware of and if I knew them, I could use them.

*I: In general, are you positive in using digital tools in school?*

T4: Yes and I believe that it is not that bad for students to do some behaviorist practice. Since the material designed is based on the book, it might be boring to use it over a long time, however, it could support the students as they have learning gaps. Learners sometimes have superficial knowledge and materials like these help them, it is an extra level of consolidating the knowledge. For me, behaviorist practice is not a bad idea for children up to junior high school; of course, we will not limit ourselves to that.

*I: Would you like more from the educational platforms of the Ministry of Education?*

T4: Yes, 100%. Materials should be enriched from a technological point of view, new and more creative materials could be added, too. Even materials not based on the book. Since something is offered, why not make it better? Internet is all about updating. You cannot have a digital space that is static. Due to technological changes, digital resources should be updated every two to three years the most

*I: Do you receive the training that you would like regarding digital tools?*

T4: Of course we don't receive training, I can speak only for my district, I do not know what happens in other districts, it's not something we discuss. My own English counselor does not systematically train on new technologies; maybe because he/she feels that colleagues know these things or because he/she believes that they will not show interest in this. There has been some training in previous training meetings and in a short seminar. But the Ministry of Education could organize something, even distant, like Moodle courses, if they cannot offer live training… I am proud that I have just finished B level training, that is evaluating digital tools…It's not that the digital activities are not in line with the textbook activities. The problem is that the digital material supports a textbook that it is not good. Some colleagues in this training session pointed out that the new technologies can reinforce a good teaching but a bad teaching they can only make it worse. The books should definitely be updated, they're very old."

*I: Which books are you referring to?*

T4: The books for primary and junior high school. For senior high school, up until last year there wasn't a book for English teaching. The students bought the books. This year it was

said that students in the second and third classes of senior high schools should finish the books they have already bought and for the first year, some chapters were uploaded in the platform of the Institute of Educational Policy. There aren't audio extracts any for the books of English as a core or specialty subject in EPAL; there's a Teacher's book for some of the books…I know that other colleagues have their own classrooms for teaching English equipped with projectors and technological equipment. You do depend on what is offered in your school…The problem with the digital tools is that there is not Internet connection in the classrooms, and even if there was it would probably not be good…. When we talk about digital technologies, things should move fast; if they don't, then they become insufficient and inefficient or malfunctioning and then you stop using them…For evening schools there aren't differentiated provisions. I use in my evening English class the same book that the students do in the morning school. However, most of my students are adults and their interests are different as well as their level. I have students even that have never been taught English and it is hard to find digital resources designed for their learning needs.

**Interview with Teacher 5**

*I: How are classes equipped technologically?*

T5: Some classrooms have got a projector and a whiteboard, which reflects the computer screen through the projector. The whiteboard isn't interactive.

*I: Do you use the projector?*

T5: Rarely because the teaching hour is limited. Till you get organized and set up everything, time flies and you haven't managed to do anything. I do use it sometimes though, especially at senior high school to show something through YouTube, there is a new book for the first grade of high school that has links to YouTube, but it takes time; and we lack time.

*I: How about the e-books?*

T5: Up until this year the English teachers chose which books to use for their teaching based on a list of private ELT publishers which was approved by the Ministry of Education (for senior high school). Around November-December we were sent a bulletin by the

Ministry and they sent us books only for the first grade of senior high school just before Christmas holidays, very late. The new book is very interesting as it pertains to issues that are relevant to youngsters, and with the adults that I teach in evening school. There are more exercises where they can develop their critical thinking, less grammar exercises, and more opportunities to discuss social issues. There are also YouTube links with videos in the books relevant to the topics discussed. Teachers are encouraged to use the digital tools and resources.

*I: What about Photodentro materials?*

T5: Well, there are some links that can make the lesson a bit more interesting as you can also project the materials on the board; it is helpful. It's different seeing something from the book compared to viewing it from the board; it gets students' attention more. However, the books in junior high school are pretty old and confusing; I think they should be renewed.

*I: What about the e-me platform?*

T5: I don't know this nor have I ever used it.

*I: Have you been trained on digital tools?*

T5: I have attended all training sessions for in-service teachers, and I have A level ICT training and I managed to complete the seminar for B level ICT training; though, the latter was for Greek language teachers. Unfortunately for English teachers, there has not been given the opportunity to be trained on digital technologies relative to the teaching of English. I have a B level ICT Certificate but not for English, and not because I didn't want that, but because it wasn't given to English teachers as an option…I did the B level training 3 or 4 years ago, I was one of the first to have completed it. It was very good as you learn new things, e.g. how to use Google maps in your class and give the opportunity to your students to work in groups and make presentations. I was surprised will all the things a Greek language teacher could do with the interactive materials

*I: Would you like training seminars like this for the teaching of English?*

T5: I have served in the public education for 24 years now and I feel that as we are tremendously unappreciated. English is an international language, yet every year the teaching hours for our lessons are limited. It was 3 hours in junior high school, now it's only two teaching hours, that is 45 minutes for each session. And for the third grade of high school it has been announced that next year there won't be teaching hours for English at all. And lets' keep in mind that there are students who sit Panhellenic Exams that require taking part in English exams. However, the Ministry of Education has no provision for this. English is a neglected school subject and I do not know the intentions of the Ministry. The Ministry of Education does not make an effort to train us appropriately on the digital tools and maybe there is no need to do that, as our teaching hours are constantly limited…Some controversial things are being said. They had stated that we, as state schools, could give for the Certificate for English as a foreign language to our students. How are we going to give such Certificates i.e. A1, A2 or B2 level when we see our students only two times a week? English teachers are let to deal with such problems on their own, based on their intuition with no crucial support from the Ministry.

*I: A general comment for the use of digital tools in English classes?*

T5: I believe that it is very good to use digital tools and children nowadays use technology from a young age, thus they expect that they use it at school to and observe us using it too. We come very close to our students, who use technology, so we should use it too in our teaching, but of course in a moderate way, so that we don't get lost in it or that our students don't deviate from their goal which is to learn English well.

**Interview with Teacher 6**

*I: How are classes equipped technologically?*

T6: For the last two years our high school is a guest at the adjacent primary school. So, the technological equipment that I'll describe concerns the classrooms of primary school, not that the former high school had more facilities. Most classrooms have a TV. That's it. There is a projector only in the ICT class and at the school hall. As I want to project material during my teaching, I do the English lessons at the school hall if it is available.

*I: What is your opinion about Photodentro?*

T6: We had done a seminar, one-day seminar, you don't even call it a seminar as it lasted for about an hour. Only once a person from the education has talked to us about Photodentro and how it works, nothing else. It was a school counselor, not an English counselor though and he/she only made reference to it. I have never used it.

*I: Regarding e-books, I understand that now at this school you don't have interactive board equipment, what about former schools?*

T6: In former schools there were projectors that we were carrying the from classroom to classroom. You needed a quarter of an hour to set it up, and another quarter to set it apart, so it's wasn't worth the time. Now, we are back at the blackboard with the chalk. In the primary school that we are guests in, 90% of the classrooms have a blackboard… There weren't any interactive whiteboards neither at the high school nor at the primary school. Personally, I am 22 years in the educational sector, and I have never seen what an interactive board looks like.

*I: So you have never used e-books…*

T6: Whatever I do from books and literature, I do it the traditional way; photocopies and students have the material in front of them to read it. I can never read from an e-book. Unless I have a book in my hands, I don't feel like I'm reading. So, I will leave the e-books to the younger generation if you believe that they can be efficient; but I don't find that they are. I would never use e-books as an additional screen, I would print them out instead. Students are full of screens, let's keep something from the old traditional way. Everything has been done in digital form. Students have a screen in front of them all the time, why should they have more? However, this does not mean that I wouldn't like to be informed and trained further on these tools…They sent a book about the first grade of high school and one common book for the second and third grade, which is not bad and on every page there is an web link, or a YouTube video link relevant to the texts. All listening activities are on YouTube; this takes for granted that we have Internet access. Today, I had real trouble connecting to the Internet, I spent a quarter of an hour trying to connect and I didn't manage to do it. We don't have Internet connection in all classrooms, only in the school

hall. With the new book it is mandatory that we have Internet connection, if you wish to do the listening exercises.

*I: Let's move onto training…what training have you received?*

T6: Now coincidentally I have a training session from the Institute of Educational Policy, we don't have these often. We haven't met our new school counselor yet, who has changed since last year. If the school counselor comes to visit us once per year, we shall be happy. And when they do come, we don't do anything great. You know we just gather for an hour and we just talk about our problems, we are not being trained, we just talk about issues. Training is insufficient, or even absent. I don't know if this will change tomorrow; we have a training session from 09:00 till 14:00. But in general, I have been in the education for 22 years now and I haven't received explicit training"

*I: What problems are discussed in the training sessions?*

T6: For example, this year we have this issue with the books. We usually gather for an hour from all schools (primary, secondary, high schools and vocational high schools) and someone starts talking about the problems they face, but we don't have much time to go through everything. Anyway, training sessions do not happen often because the school counselors pay the expenses themselves to visit our schools. So, they come and visit us once a year, and cover very basic issues.

*I: What would you like to be informed about in training sessions?*

T6: About more sophisticated lesson plans, state-of-the-art teaching methods, more innovative teaching methods, classroom management etc.

*I: Have you received ICT training?*

T6: Every year, for 15 years now, I have applied for the A level ICT training and I have never been chosen. This year I sent an application after the deadline had passed, but still they didn't choose me. I have done other seminars, though, on computers and ICT, but never A or B level ICT training.

**Interview with Teacher 7**

*I: What technological equipment is available at your school?*

T7: As a school we didn't have much equipment; two classrooms had a projector and there was a portable one, too. Since no one was using the latter, when I managed to have my own classroom for the teaching of English [which doesn't happen often], I used the projector and there was a laptop available too; nobody objected to me using them, so I started like this. I started a bit hesitantly. Now it's 4-5 years since then and I use the technology mainly with materials from Photodentro. Certainly, there are other numerous possibilities; and my students ask that we use the technology; Now it's indispensable; we use these digital tools daily

*I: Which of the Photodentro material have you found most useful?"*

T7: With the young ones there are nice videos, the videos are good and supplement the book. The exercises are ok, depending on the class. With the young students the exercises are more interesting, i.e. in 3rd grade. When the level is higher, the activities are not that interesting, so you look for other materials; there are so many materials now available.

*I: Do you use e-books?*

T7: Yes, we use them; and the games that are embedded, they are nice, too.

*I: Have you used e-me platform?*

T7: No, I don't know this one. They don't send us informative material. What we do, we do it on our own.

*I: What about training on ICT?*

T7: I have attended Moodle for ICT training twice. I had applied and I was chosen randomly both times. The school counselor organized it. We had some meetings live which lasted 3-4 hours; the rest of the training was administered online. We had to deliver a project every week: they introduced us to different applications, they explained the steps and then we were assigned a project on that and we got feedback after completing it. Each training lasted for 3 months. Since last year they have included teachers of all majors and specialties for B level ICT training. Prior to that, only A level ICT training was available

to English teachers. In B level training we did about blogs and wikis; there we were also informed about Photodentro.

*I: How did you find these two training sessions?*

T7: Excellent. I learned a lot of things. At the beginning I was careful about what to click and what not to; now I am more familiarized. At some point you realise that the rationale of applications is the same. There aren't big differences, all you need is getting familiar with it. It was very interesting session. If other training sessions are held, I'd like to attend even though I haven't got much free time. Of course, attending these sessions is voluntary, you don't get paid for them nor do they happen during school hours.

*I: Do you have a general comment about ICT materials and the teaching of English?*

T7: In general, they are very interesting. I think they should be incorporated and used daily. Of course, we should not get to the other end, that is only do activities through the computer. The traditional way is not bad either. However, we need to modernize our classrooms and we should incorporate ICT even for a while. Training is needed at least once a year for some hours so that they can show us what new materials are available. Their own [Ministry of Education] material needs to be updated, too.

**Interview with Teacher 8**

*I: What technological equipment is there at your school?*

T8: There are 2 projectors and an ICT lab with 10 new computers. There is an interactive board in one of the classrooms, but we haven't used it yet. I am at this school for the first time, and I joined late as I am a substitute teacher. This is what I found from technology at the school; it is generally good. I use the projector and sometimes the computers, too.

*I: Do you think that this equipment can be helpful to the teaching of English?*

T8: Yes; not only does it help, it is necessary that there is one.

*I: For what activities do you use the computers?*

T8: Mostly to show videos relevant to our lesson and do a relevant activity. Sometimes we do some of the extra activities in the e-book; especially students from the first grade of junior high school like these a lot."

*I: Your opinion about Photodentro?*

T8: I know the platform… I believe it is connected to the e-books. It wasn't that helpful when I browsed it; there are categories and materials are listed according to learners' age; that's helpful but I am looking for something more… not just show a video or do an audio extract, I would like something more…

*I: What about e-me platform?*

T8: I haven't used it. It is the fact that I join schools very late and sometimes I am at schools that do not have technological equipment

*I: Are there materials that you find to be most useful?*

T8: The main issue is the books for junior high school, which I think that they could be improved. And maybe that's why there is Photodentro so that we have extra activities. Again, students are not happy with all the exercises that are there, you have to find particular ones, gamified ones, e.g. matching exercises and filling in the blanks; they like these kinds of stuff but there aren't many available. So, we don't do them every week.

*I: Has anyone informed you about these platforms?*

T8: I heard about the e-me platform first from you. Also, a counselor some years ago had organized a seminar on Photodentro and had informed us accordingly.

*Interviewer: Was it helpful?*

T8: Yes, it was. For example, they had told us where to find the glossary, which I didn't know it existed so that I could use it. It was helpful yes; I think it was the most helpful of all seminars I've been to regarding these tools and teaching.

*I: Would you like seminars like these again?*

T8: Yes, of course. Especially seminars relevant to ICT and user-friendly platforms… For example, this platform you talked about, I imagine you can do things with the students even outside school, right? That could be very helpful, but it should be made popular and attractive to students. I think my students would like it, if it were organized. I would like seminars, which would be relevant to the teaching practice; practical advice on how to use technology to facilitate different learners' needs.

*I: A general comment for digital tools in state schools?*

T8: I think that more creative ideas could be introduced to Photodentro. Not only videos and audio extracts; Both Photodentro and the e-books could be enhanced further… It would be nice if there were classrooms at schools that would be only for a particular subject. It would be beneficial if English was taught in an environment, technologically enriched, and unique for ELT, where you could show different things to students, make crafts; that would be interesting. Sadly, rarely will somebody say that they learn English at state schools, because everyone goes to frontistiria; but the circumstances are not that bad now.

**Interview with Teacher 9**

*I: What technological equipment is available at your school?*

T9: We have four classrooms that have interactive whiteboards and projectors; however, they were never used as interactive because no one was able to operate them. The good thing is that for the past two years, after having requested it, I have been given my own classroom for the teaching of English. I bought my own projector and I brought my own laptop. I use the projector during all teaching hours and the lesson is done through it. I have downloaded all books in pdf form and I edit them, e.g. by marking unknown words on the texts and this helps students a lot. I add supplementary audiovisual material for everything I do from the book, e.g. movie clips. I always choose parts of movies to do in my lessons."

*I: You use videos a lot…*

T9: Indeed, I choose the videos myself and after my students have watched the material, we can have a conversation about it in English and the students respond very well to it, and we have nice discussions.

*I: What about Photodentro material?*

T9: I believe that the materials there are very easy for my students, too simple. The materials I choose to give to my students are 10 times more interesting and more difficult.

*I: What about the e-me platform?*

T9: I do not know it. However, I really liked the material that was prepared by the Ministry of Education for the first and second year of senior high school. I could use this material for my own class, after editing it and adding more to it. This material definitely corresponds to the current learners' needs.

*I: What motivated you to introduce digital tools in your lessons?*

T9: About four years ago, the school counselor did an educational seminar for the teachers of English; it was the first time I was introduced to digital books, Photodentro etc. It was a 3-hour seminar and it was about delivering the lesson through computers. After that seminar, I started investigating this further. Of course, I did not restrict myself to Photodentro materials. There were some things that didn't satisfy me. Photodentro was a chaos then, everyone could put up materials and it was very difficult to search for the right ones. I don't know if things have changed there or if it's more organized now. But I did my own research, I experimented a lot, especially with movies.

*I: A general comment about digital tools and English language teaching?*

T9: I would like seminars on how to use specific digital tools; I would be very interested in that, learning for example how to make videos and being able to teach students to make videos. If anyone could teach me those things, then I would do miracles with my learners.