

Profiling of English language teachers as trainees in an online course and ensuing implications

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Abstract

The main objective of this paper is to demonstrate the importance of profiling English Language Teachers' preferences and experiences of Information and Communication Technologies (ICT) in order to inform the design of an online teacher training programme in Language Testing and Assessment and the relevant teacher training research. The findings revealed that the participant teachers received very well a variety of formats and also, they indicated methods as well as types of tasks and activities they would find most favourable in an online training course. Teachers were diverse but mediocre on average with regard to the level of confidence of their competencies in using ICT in their classrooms. Small differences were also revealed between teachers with regard to their ICT competency levels on the basis of their previous participation in online training courses but strong correlations among the different ICT competencies investigated. The findings point to the need to incorporate scaffolds in the design of online training environments that will help teachers feel confident in the online training environment and especially empower those that have not participated in such training courses before. Overall the study advocates for good practices that can be relevant and informative for higher education authorities and teacher training institutions responsible for designing (blended or online) professional training schemes for pre- and in-service English language teachers.

Keywords: Adult learning; Lifelong learning; Distance education and telelearning; Gender studies; Improving classroom teaching

1 Introduction

Today's language tutors have to be proficient in the target language and sufficiently trained to be able to leverage the opportunities provided by ICT ([Godwin-Jones, 2015](#)). In order to be more effective, teacher training programs infusing ICT as a means of empowering teachers to leverage these opportunities should take into account that teachers are widely divergent regarding their ICT competencies and knowledge ([Abuhmaid, 2011](#)). This suggests that the strategy of “one size fits all” does not appear to work; a more teacher-based training model is deemed necessary to engage all teachers in technology integration practices ([Lau & Yuen, 2013](#)). Therefore, to encourage language teachers' ICT use for professional development or for teaching purposes, they should be provided with localised and supportive environments ([Papadima-Sophocleous, Kakouli-Constantinou & Giannikas, 2015](#), pp. 43-57).

Recent literature identifies factors determining the use of ICT in teaching practice: ICT skills, computer confidence ([Peeraer & Van Petegem, 2011](#); [Teo, 2008, 2011](#)) and perceptions about ease of use and usefulness ([Wong, 2015](#); [Yunus, 2007](#)). Also, prospective ICT integration significantly correlates with teacher thinking variables (constructivist teaching beliefs, teacher self-efficacy, computer self-efficacy and computer attitudes in education), and indirectly by the gender of the teachers ([Sang, Valcke, Van Braak, & Tondeur, 2010](#)) and age ([Lau & Yuen, 2013](#)). Other studies, for example [Jimoyiannis and Komis \(2007\)](#), indicate that factors, like subject matter, teaching experience and gender, are strongly associated with the beliefs and perceptions teachers hold about ICT in education (also in [Kabilan, Fara, Adlina, & Embi, 2011](#)). According to the theory of Technological Pedagogical Content Knowledge (TPCK), subject matter knowledge, knowing how to teach, knowledge of ICT, and knowing how to integrate ICT in teaching are distinctively different bodies of teacher knowledge ([Angeli & Valanides, 2009](#)) essentially this means that a teacher who is competent (or confident) in teaching a certain subject matter is not necessarily competent (or confident) in teaching it with the use of ICT.

[Drent and Meelissen \(2008\)](#) used review studies to identify a number of factors positively influencing the success of ICT implementation by educators while proposing a theoretical framework which categorizes them in

exogenous (non-manipulative) and endogenous (manipulative) influencing factors. The exogenous teacher level factors are: a) age, b) gender, and c) teacher experience (educational experience and experience with the computer for educational purposes). In particular, the authors identified that in younger teachers, males, who are more experienced are more frequently associated to the successful ICT implementation. In the context of computer assisted language learning in EFL education, this proposition has been tested with a number of in-service ELTs working at Najran University, Saudi Arabia (Mahdi & Al-Dera, 2013). The results did not indicate significant differences in using ICT for language teaching in conjunction to ELTs age and experience. However, a significant difference was found between male and female ELTs.

The current case study focuses on English Language Teachers (ELTs) with respect to their preferences about an online training course as well as their confidence in using ICT for teaching/learning and professional learning. The goal is to profile the ELTs considering key factors that can have implications on the creation of a teacher-centered online training infrastructure for these teachers. To this end, our intention is to create a learner-centered, open learning environment that takes into account the teachers' prior knowledge and experience in an effective way to provide a quality training experience that embeds reflection mechanisms and design scaffolds.

The structure of the paper is as follows: in the next section the specific research questions are described, followed by similar research works in order to unravel the dialectic relationship between teacher training, professional development, (perceived) ICT teacher competencies, and online training environments as it is portrayed in the recent literature. Next, the conceptual framework on ICT teacher competencies is presented and following, the context of the case study is described in detail. Following, the research design is discussed along with the analysis of the results. Finally, the paper concludes with theoretical and practical implications that can be drawn from the analysis.

2 Research questions

Our study is guided by the following research questions (RQs):

RQ1 - What are the preferences of ELTs regarding methods and formats of an online teacher training program?

RQ2 - What is the (perceived) digital experience of ELTs focusing on their confidence levels?

RQ3 - Is gender, age or teaching experience associated with the technology literacy confidence of ELTs?

RQ4 - Is confidence on the subject matter knowledge associated with confidence on exploiting technology literacy to teaching the subject matter at stake?

RQ5 - What implications do the above questions have on the design of a) an inclusive online training environment and b) professional training programs for ELTs?

The focus of the study is to understand the profiles of trainees with respect to variables that can affect their training experience in an online course on their subject matter (RQ1-RQ4). The final aim is to discuss theoretical and practical implications stemming from this profiling (RQ5).

3 Teachers' ICT in education competencies

3.1 Focus on ELTs

It has been recently argued that “the scientific literature offers very few empirical studies into teachers' ICT competences” (Almerich, Orellana, Suárez-Rodríguez, & Díaz-García, 2016, p. 112) aiming to address “the need to build competence models that support the incorporation of technology into training processes” (Almerich et al., 2016). Yet, there are several cases in the recent literature that aim at gauging ELTs perceived ICT competencies. Examples include a descriptive study conducted with undergraduate students of five teacher preparation programs in Nigeria (Danner & Pessu, 2013); survey studies and/or interviews with English language instructors from universities, graduate teachers and school teachers located in Turkey (Aydin, 2013; Şahin-Kizil, 2011), Malaysia (Samuel & Bakar, 2007; Yunus, 2007) and Chile (Brun & Hinostroza, 2014). Regarding ICT integration in ELT education in the Republic of Cyprus, the results of a recent study (Papadima-Sophocleous, Kakouli-Constantinou, & Giannikas, 2015, pp. 43-57) show that teachers' expertise in using new technologies is limited. Teachers find it difficult to use recent technologies in their teaching (also in Stylianou, 2012) while the technical and pedagogical training they receive is inadequate. This makes teachers feel ‘out of date, intimidated and unprofessional’ (Stylianou, 2012, p. 55). Nevertheless, studies stress that training that will enable teachers to become competent in and receptive to ICT is quite critical (Hismanoglu, 2012). Therefore, the nature, level and delivery of the training programs need to accommodate each and every teacher and provide efficient support for the appropriate use of technology (Donnelly, McGarr, & O'Reilly, 2010). Suitable training and monitoring needs to take place in pre-service and in-service if the preparation of educators for ICT integration can be managed adequately (Jung, 2005). Sercu and Peters (2002) advise that before starting the development process of training environments (computer-supported including), expert developers need to carry out a thorough analysis of the different technological and educational factors and characteristics of the training environment to be developed. More importantly, designers are advised to profile the characteristics of its future users (in this case, ELTs). To this suggestion, Selinger and Pearson (1999) add that expert developers should study users' access to technology, their preferences in relation to technological characteristics and the type of extra support needed to guarantee that the learning environment will actually be effective and user-friendly. Similarly, it has been suggested (Parchoma, 2003; Mavroudi & Hadzilacos, 2013) that user-centered and participatory models of instructional design for online learning

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emphasize learners' characteristics - demographics, needs, preferences, and experiences, among others. Similarly, [Mora, Trejo, and Roux \(2014\)](#) mention that there are three distinctively different approaches on ELTs professional development: the individual approach, the institutional approach, and the teacher-led approach. This case study adopts the latter approach, which stresses the importance of designing paths based on the teachers' preferences, experiences and beliefs.

3.2 Conceptual framework

UNESCO's ([UNESCO, 2011](#)) ICT Competency Framework for Teachers (ICT-CFT) is an international benchmark setting out the competencies required to teach effectively with ICT. Horizontally, it is arranged in three different approaches representing three successive stages of a teacher's development: technology literacy, knowledge deepening and knowledge creation. Vertically, it addresses six complementary aspects of a teacher's work: understanding ICT in education, curriculum and assessment, pedagogy, ICT, organisation and administration, and teacher professional learning.

The stages of educational development are mapped against the aspects of a teacher's work to create a framework of 18 modules of teacher competencies. It has been suggested ([Tairab, Huang, Chang, & Zheng, 2016](#)) that countries worldwide have increased teachers' professional development in conjunction with ICT integration by exploiting frameworks like ICT-CFT. An example is the case study of the Guyana initiative ([Moore, 2012](#)) in which the UNESCO ICT Competency Framework for Teachers (ICT-CFT) was used as a conceptual framework to analyse and assess the benefits of using ICT for educational management, teaching, learning and administration.

[Fig. 1](#) presents the conceptual framework of the study as a whole, including all the variables discussed as well as their interrelationships (depicted with dashed lines), in line with the research questions examined in this study. The constructs that are directly associated to the perceived ICT competency node of the diagram are relevant to the ICT-CFT framework.

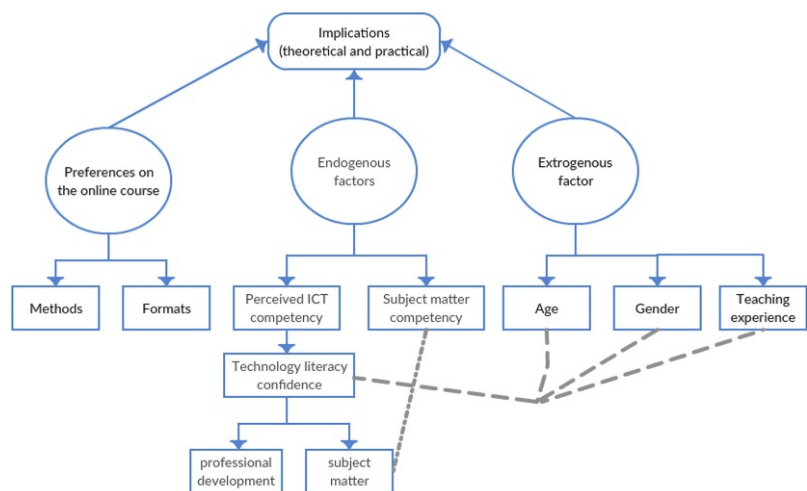


Fig. 1 The conceptual framework of the study.

alt-text: Fig. 1

4 Context

Motivated by the state of affairs described in section 3.1, a collaboration project funded by the European Commission called [project name missing] was developed aiming at increasing ELT's language assessment literacy (LAL) levels. Acting proactively, the project consortium commenced the project activities in September 2016 by conducting a needs analysis which involved pre- and in-service ELTs who were requested to complete a questionnaire which is presented in detail in the next section. The results of the analysis phase were used as input in the next phase involving the development and piloting of the online training materials and services. Furthermore, the project consortium members shared the view that the added value of the learning materials could be strengthened if the thematic areas covered complemented the subject matter knowledge that ELTs typically receive via formal education pathways or via training activities conducted by international associations and special interest groups. In terms of learning design, the syllabus of the training course involves the content/thematic areas of the course, specification of LAL competences, course duration, course timetable, the design of the materials, stakeholders' engagement procedures, and logistics (e.g. practical aspects).

The program is envisioned as a means of training ELT's in LAL through an open and sustainable online training infrastructure that the [project name missing] project will leave as legacy for future exploitation by receiving © 2018. This manuscript version is made available under the CC-BY-NC-ND 4.0 <http://creativecommons.org/licenses/by-nc-nd/4.0/>

funding by the EC to do so. Accordingly, the project set off to identify the training needs of ELTs along with the exploitation of ICT methodologies, Open Educational Resources (OERs) and virtual collaboration spaces used to further promote the acquisition of knowledge, exchange of experiences and good practice. The online training environment was based on moodle (www.moodle.org), which is currently one of the most well-known learning management systems that can be extensively customised according to the underlying needs (Machado & Tao, 2007), something that was highly prioritised in this case study. Another reason for the selection of moodle was that it satisfied the requirements for the creation of an open learning environment where online communities can be formed and sustained (see for example, Moreno, Gonzalez, Castilla, Gonzalez, & Sigut, 2007). It is expected that during the project, ELTs will form online communities of interest that will foster the exchange of information, ideas and experiences.

5 Methodology

5.1 Participants profile

In this study, 367 English language teachers participated from different cities of the Republic of Cyprus. In their vast majority, they were females (94%) teaching English as a foreign language (97%). Fig. 2 depicts the distribution of the participants across genders and age groups. Also, the majority of the participants were females above 46 years old. Regarding prior teaching experience as language teachers, 67% had more than 15 years of teaching experience, 11% had between 11 and 15 years, 13% had between 6 and 10 years of experience and 7% had between 1 and 5 years of experience. The remaining 2% were preservice teachers with limited teaching experience. Almost 72% of the participants had not participated in any kind of online training before.

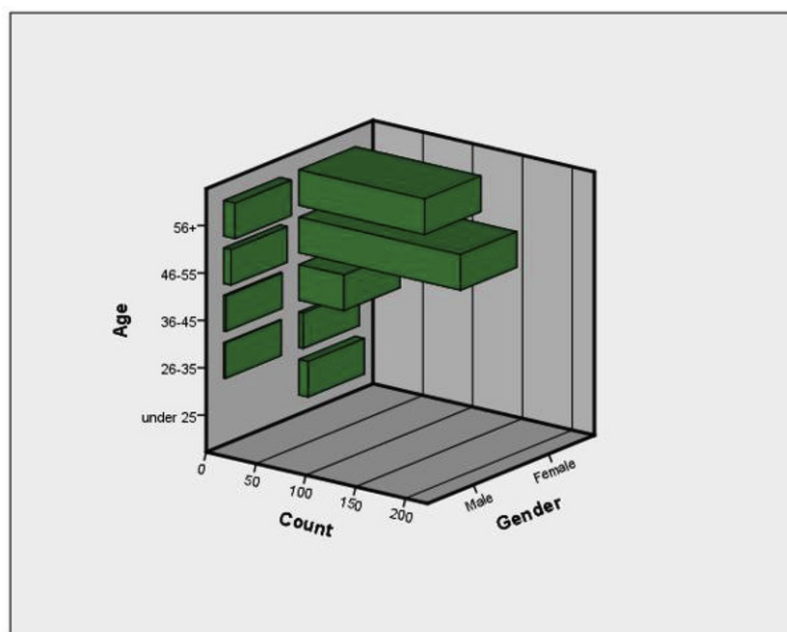


Fig. 2 Participants' distribution across age group and gender.

alt-text: Fig. 2

5.2 Process and instrument

All participant teachers answered a questionnaire, which comprised four parts. The first part contained questions about basic demographic data. The second part included questions about teachers' preferences in terms of training course formats (i.e. types of materials) and methods to be incorporated in the online environment. The third part involved two different aspects of teachers' technology literacy, as perceived by them. The first aspect involved technology literacy in conjunction with curriculum and assessment and the second one in conjunction with their own professional learning. This part was inspired by the UNESCO ICT competence framework for Teachers (UNESCO, 2011). In particular, it focused on the technology literacy approach in tandem with two aspects of teacher's work that are related to the online training course of the project, namely a) curriculum and assessment, and b) teacher

professional learning. The former involves teachers being able to match specific curriculum standards to particular software packages and/or computer applications and describe how these standards are supported by these software applications. The latter involves teachers exploiting web resources that support them to use technology as a means to acquire additional subject matter and pedagogical knowledge in support of their own professional learning. Two questions derived from the description of each aspect (i.e. four questions in total). Finally, the fourth part of the questionnaire involved a series of questions related to teachers' confidence on subject matter aspects, that is, questions related to language assessment literacy. For all questionnaire items in all parts except for the first one, a 4-point Likert scale was used. The first part of the questionnaire exploited 5-point Likert scales both for the age distribution ('under 25', '26-35 years old', '36-45 years old', '46-55 years old', '56 + years old') and for the prior teaching experience ('pre-service teacher', '1-5 years', '6-10 years', '11-15 years', '15 + years'). The design of the questionnaire was a collaborative activity of experts coming from the four European participating countries. However, for the purposes of the present paper, only data responses from ELTs from the Republic of Cyprus will be reported.

The questionnaire was pilot-tested twice with a small number of EFL teachers (15 teachers) and refinements were made, such as simplification of terms and statements, and changes of format. The participant teachers anonymously completed it in a printed and online format in approximately 15-20 min. The teachers were undertaking rigorous in-service teacher training offered by one of the authors of this research work under the auspices of a public body in Cyprus belonging to the Ministry of Education and is responsible for teacher training, among others.

Oral consent was given by the respondents of the final version of the questionnaire to collect their answers and use the ensuing data in a non-identifiable format solely for research purposes. The answers of the participants were transferred in an online format using a spreadsheet software and then they were imported to a commercial dedicated software package which was used to perform the statistical analyses of the study. Finally, regarding the reliability of the questionnaire design, Cronbach's alpha revealed acceptable levels of internal consistency: 0.678 for the 'preferred method' construct, 0.700 for the 'preferred format' construct, 0.909 for the 'perceived competency levels' construct and 0.897 for the 'perceived subject matter competency' construct.

6 Results

Regarding the first research question (e.g. the teachers' preferences on the methods and formats to be incorporated in the online training course), the results show (see [Table 1](#)) that all of them were rated very positively. Surprisingly, the most passive (i.e. less interactive) method, which is the short video presentation, was rated higher than all methods with a 95% confidence interval of (3.821-3.899), whereas the interactive online course format was rated lower than all formats with a 95% confidence interval of (3.258-3.422). At the open-ended question none of the respondents offered any additional suggestion or comments about a method or a format they preferred.

Table 1 Descriptive statistics on preferred methods and formats.

alt-text: Table 1

Preferred Methods and Formats		Mean	S.D.
Formats	Blended learning	3.53	.72
	Printed self-study materials	3.46	.75
	Online resources for self-study	3.52	.71
	Interactive online course	3.34	.80
Methods	Short video presentation	3.86	.38
	Practical materials	3.69	.59
	Reading materials	3.66	.62
	Discussing with others	3.68	.57
	Trying out and evaluate	3.62	.64

Regarding the second question (ELT's perceived digital experience), [Table 2](#) shows the self-evaluations of the confidence levels of the participants' technology literacy. All four variables have mediocre mean values ranging from 2.32 to 2.59 (out of 4). The mean score of their overall confidence in all four variables was also calculated and was found equal to 2.49 (S.D. = 0.78). This implies that the participants do not feel particularly confident about their technology literacy in relation to the design of curriculum and student assessments and their own professional learning.

Table 2 Descriptive statistics on technology literacy confidence levels.

alt-text: Table 2

Technology literacy areas	Descriptive indicators for variables	Confidence Mean	Confidence S.D.
Technology literacy in conjunction with the design or curriculum and assessment	Match curriculum standards with computer applications affordances	2.47	.898
	Use computer applications affordances to support curriculum standards	2.32	.868
Technology literacy in conjunction with teacher professional learning	Use web resources for subject matter knowledge	2.59	.858
	Use web resources for pedagogical knowledge	2.58	.884

A correlation analysis was performed among the four variables as seen in Table 2. The results revealed significant correlations among all four-technology literacy variables, with the values of Spearman's rho ranging from high ($r_s = 0.608$) to very high ($r_s = 0.867$) at the 0.01 level. Consequently, it can be inferred that if a participant has a certain level of confidence in one of the technology literacy variables it is probable (or highly probable) that (s)he will have similar levels of confidence in the remaining three technology literacy variables.

Regarding the third question (association between gender, age and teaching experience with technology literacy of ELTs), it seems that there are no differences in the overall confidence among males and females, as shown in the figure below (Fig. 3). The overall confidence construct represents the mean score of the four variables of Table 2. The mean value of overall confidence for males is 2.45 (N = 21, S.D. = 0.15) and for females is 2.49 (N = 336, S.D. = 0.04). The median is exactly the same in both genders and equal to 2.50 and no outliers were detected, as shown in Fig. 2. An independent samples Mann-Whitney U test was performed (at the significance level of .05) to determine if there were differences in confidence scores between males and females. The results showed that the distribution of overall confidence was the same between males and females, $U = 3629.5$, $z = -0.223$, $p = .823$, using an exact sampling distribution for U (Dineen & Blakesley, 1973). Consequently, it can be concluded that there are no significant differences between males and females in their technology literacy, especially when technology is used for education purposes (the teaching/learning purposes or for teacher professional development).

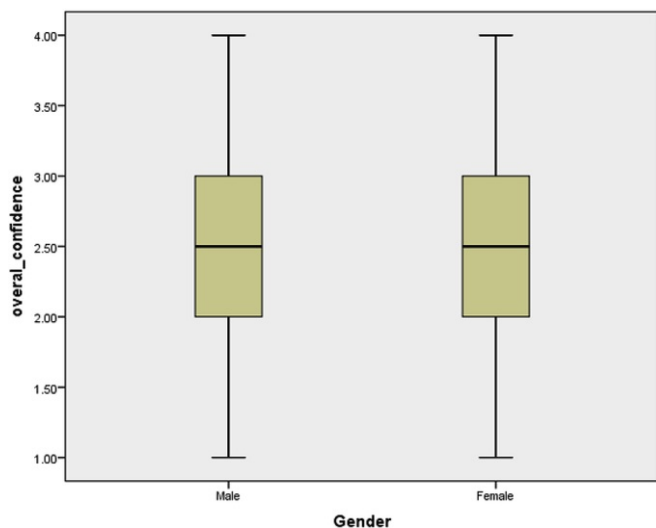


Fig. 3 Confidence in technology literacy for education between genders.

alt-text: Fig. 3

With respect to differences on the overall confidence levels in technology literacy across age groups, the boxplots for the five age groups (Fig. 4) and the basic descriptive statistics shown below indicate small differences (Table 3). A Kruskal-Wallis H test was run to determine whether these differences in confidence score between the five groups of participants with different ages can be considered significant. Distributions of confidence score were similar for all groups, as assessed by the visual inspection of the boxplot. Median confidence scores were not statistically significantly different between groups, $H(4) = 5.247$, $p = .263$. Consequently, we cannot associate participant age with overall literacy confidence level in exploiting ICT (for teaching/learning and professional development).

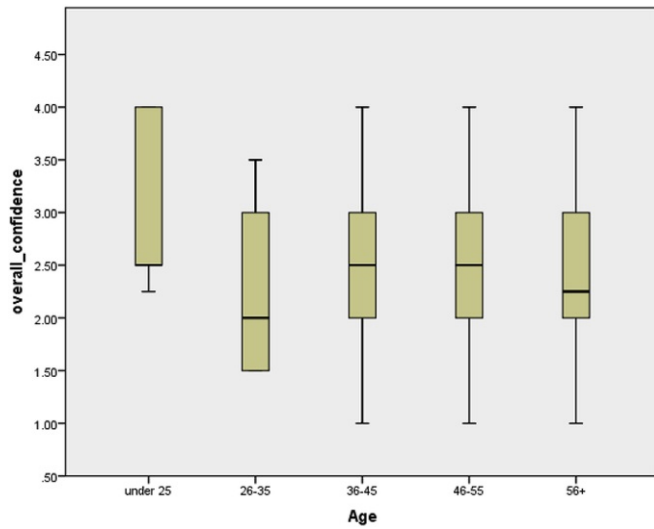


Fig. 4 Overall confidence on ICT across age groups - boxplot.

alt-text: Fig. 4

Table 3 Overall confidence on ICT across age groups – descriptive statistics.

alt-text: Table 3

Age	N	Mean	Median	S.D.
under 25	9	3.03	2.500	.76
26-35	5	2.30	2.000	.91
36-45	46	2.51	2.500	.89
46-55	166	2.52	2.500	.77
56+	131	2.42	2.250	.76
Total	357	2.49	2.500	.78

Next, two variables are defined: the first one related to ‘Confidence in subject matter’ (i.e. language assessment literacy, abbreviated as ‘overall confidence SM’ shown in [Table 3](#) constructed as an average of all the items comprising the fourth part of the questionnaire and the second one related to ‘Confidence in technology literacy in conjunction with the design of curriculum and assessment’ constructed as an average of the first two variables of [Table 2](#). That is, the latter variable is related to confidence in using technology in conjunction with the subject matter (abbreviated as ‘overall confidence T-SM’ variable shown in [Table 4](#)). Three independent samples Kruskal-Wallis tests were run to check whether the distributions of

- a) the overall confidence in technology literacy,
- b) the overall confidence in subject matter literacy, and
- c) overall confidence of technology literacy in conjunction to the subject matter are the same across groups with teaching experience.

Table 4 Asymptotic significances of the independent samples Kruskal-Wallis tests.

alt-text: Table 4

Null Hypothesis	Sig.	Decision
The distribution of 'overall confidence' is the same across categories of 'Teaching experience'	.173	Retain the null hypothesis
The distribution of 'overall confidence SM' is the same categories of 'Teaching experience'	.009	Reject the null hypothesis
The distribution of 'overall confidence T-SM' is the same categories of 'Teaching experience'	.298	Retain the null hypothesis

At a significance level of 0.05 the results reveal that.

- a) the distribution of the overall confidence in technology literacy (in conjunction with the subject matter and in conjunction with the teacher professional development) is the same across groups of teaching experience,
- b) the distribution of the overall confidence in the subject matter literacy is not the same across groups of teaching experience, and
- c) the distribution of the overall confidence in technology literacy in conjunction to the subject matter is the same across groups of teaching experience.

Regarding (b), post hoc analysis revealed significant differences between pre-service teachers and teachers with 6-10 years of teaching experience, as well as between teachers with 1-5 years of teaching experience and teachers with more than 15 years of teaching experience.

Regarding the fourth question, a correlation analysis was performed using Spearman's rho correlation (r_s) between the average confidence about the subject matter (i.e. literacy assessment) and the average confidence about technology literacy in conjunction with the design of curriculum and assessment (comprising the average of two variables, as seen in Table 2). The results revealed a weak linear correlation between the two variables ($r_s = 0.327$) at the 0.01 level of significance. Consequently, it cannot be inferred that if a participant has a certain level of confidence in assessment literacy, (s)he will probably have a similar level of confidence in their technology literacy in conjunction with the design of curriculum and assessment.

7 Implications

There are both practical and theoretical implications stemming from the results which are discussed in this section.

7.1 Practical implications for the design of scaffolds embedded in an online training environment

From the results above emerged that the participant teachers were not particularly confident with respect to their digital competences. Accordingly, several literature reviews have identified approaches that could be implemented to promote digital competence in teacher education such as scaffolding teachers' learning experiences, and reflecting with and about didactical use of ICT (Røkenes & Krumsvik, 2016). Consequently, the incorporation of supporting mechanisms in the forms of design scaffolds embedded in the online environment (i.e. moodle) was considered essential for the success of the training process, along with motivational design features. To this end, we purposefully designed and embedded in the online training environment both conceptual and procedural scaffolds. That is, we embedded support mechanisms to facilitate the development of domain knowledge and the use of the resources and the tools of the online environment to facilitate the training process, respectively (Hannafin, Land, & Oliver, 1999; Moos & Azevedo, 2008). In particular, the embedded scaffolds were designed to assist trainees "with elements of a task that are beyond their capacity, and help them concentrate on elements of task that are within their range of competence" (Moos & Azevedo, 2008, p. 1690).

Below, we describe the scaffolds embedded in the online training environment, together with displaying their actual implementation using figures of the environment. Regarding conceptual scaffolds, firstly we clarified the structure of the course content and activities in a separate section (namely, the 'Structure' section) of the online training environment. Yet, breaking down the content hierarchically and guiding the trajectory of the learner incrementally towards externally imposed objectives would imply a directed, as opposed to an open, learning environment (Hannafin et al., 1999). Instead, we organized content in eight separated sub-courses, each containing a number of sections and focusing on a specific issue, as well as a number of activities. The number of lessons taken, and the order in which the teachers would follow (i.e. their trajectory), was up to them. Nonetheless, in the 'Structure' section we suggested following the lessons in the pre-defined order in which we had placed them, in case they had a limited prior knowledge on the training content (i.e. curriculum and assessment for language teachers) or in case they were not much experienced in e-learning environments. The rationale was to provide opportunities to the teachers to manipulate and experiment, as well as to link cognition with context (Hannafin et al., 1999).

In addition, in order to facilitate domain knowledge we provided a glossary comprising the most important terms of the domain. The glossary was used to facilitate connection making between the sub-courses and their main themes and also, as a means to simplify complex concepts of each sub-course (Hill & Hannafin, 2001). Technically speaking, the connection was created using hypermedia links, as shown in Fig. 5, but the glossary could also be used independently as a standalone application.

Aims

In this course, you can learn about what efficient readers do well as their level of proficiency by familiarizing you with sample assessment tasks to highlight the requirements of skills, especially how they can be constructed. Then you will be so as to be able to start designing your own reading assessment tasks.

Expected outcomes

Upon completion of this Course, participants will be able to:

- Distinguish how good readers adapt their reading approach
- Identify features of reading assessment tasks that are effective
- Evaluate reading tests more critically.
- Design a reading assessment task on their own.

Key concepts

- Bottom-up processes
- Extracting details
- Extracting specific information
- Getting the general picture
- Productive tasks
- Receptive tasks
- Top-down processes

Fig. 5 Interactive glossary in the introductory page of each lesson.

alt-text: Fig. 5

Regarding embedded procedural scaffolds, they can be summarized as online notes, tutorials on the use of the online environment, a FAQs (Frequently Asked Questions) section and a dedicated forum where participants could ask questions, provide suggestions and comments etc. The online notes included on-screen hints about the use of the online platform. An example is shown in Fig. 6.

Let us know whether the expected outcomes of this Course have been achieved as far as you are concerned.

All items: 0%

- I can discriminate between traditional and alternative teacher assessment
- I can critically evaluate and apply different tools as alternatives in assessment
- I can successfully communicate with my learners about criteria for self- and peer-assessment
- I can design observation sheets and self- and peer-assessment rubrics
- I can identify suitable materials and criteria connected with portfolio assessment

Fig. 6 A note on the use of platform.

alt-text: Fig. 6

In addition to the scaffolds mentioned above, an extra scaffold mechanism for metacognition was embedded to help teachers reflect on their progress and self-regulate their learning (Moos & Azevedo, 2008). In particular, the use of checklists was exploited at the end of each lesson (Fig. 7). The rationale was to encourage the teacher to assess themselves in terms of the learning outcomes for each of the lessons.

Let us know whether the expected outcomes of this Course have been achieved as far as you are concerned.

All items: 0%

- I can discriminate between traditional and alternative teacher assessment
- I can critically evaluate and apply different tools as alternatives in assessment
- I can successfully communicate with my learners about criteria for self- and peer-assessment
- I can design observation sheets and self- and peer-assessment rubrics
- I can identify suitable materials and criteria connected with portfolio assessment

Fig. 7 The use of checklists as an embedded metacognitive scaffold.

alt-text: Fig. 7

7.2 Theoretical implications for the training of the teachers

All the suggested methods and formats were well-received by the participants, although they seem not to be confident in the use of ICT in their classrooms. This finding complements Fakeye (2010) whose assessment of ELTs' knowledge and use of ICT in Ibadan Southwest Local Government of Oyo State revealed that it was poor and as such, they rarely use ICT in English Language instruction. Yet, Fakeye also found that there was significant difference in

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the male and female teachers' knowledge of ICT with the males demonstrating a higher level of (perceived) knowledge than their female counterparts (also in [Jimoyiannis & Komis, 2007](#); [Kabilan et al., 2011](#)). On the contrary, our analysis revealed that the confidence levels of the teachers with respect to the use of technology for teaching/learning (focusing on curriculum design and assessments) and the overall technology literacy confidence levels which also take into account the use of technology for professional learning do not differ much with respect to years of teaching experience, gender or age. In other words, our analysis showed that the gender does not constitute a factor associated to the confidence that language teachers have regarding their knowledge and skills of using ICT. Yet, confidence levels related to the subject matter were different. That practically means although teachers become more confident about teaching their subject matter as they gain more teaching experience this does not apply to technology exploitation. This is in line with the underlying assumption of the Technological Pedagogical Content Knowledge (TPCK) theory, which suggests that a) teaching the subject matter, b) the use of technology and c) the integration of technology in the teaching-learning process, are three distinctively different bodies of teacher knowledge and competencies ([Angeli & Valanides, 2009](#)). Therefore, teacher training has to provide many opportunities for lifelong learning on technology literacy, while also focusing on exploiting technology for teachers' professional learning. For instance, [Fakeye \(2010\)](#) recommends that ELTs must attend periodic seminars, workshops and in-service trainings to equip them with knowledge of ICT and its utilization in classroom instruction while teacher education programmes in tertiary institutions must be reviewed to incorporate ICT-assisted instruction. ICT can provide training environments that foster opportunities of continuous professional development for the ELTs ([Aprianti, 2017](#)). In order to fully take advantage of them, ELTs have to commit themselves in the training experiences, allocate time and put effort ([Aprianti, 2017](#)).

However, for effective ICT integration, apart from introducing training programs, the confidence in teaching with technology should also be cultivated ([McKinnon & Nolan, 1989](#)). Appropriate training is inextricably linked with teachers' confidence. Basic teacher education needs to supply educators with the right tools to aid them in applying the skills they have acquired with confidence. Furthermore, the implementation of basic and extended training pre-service as well as frequent instructional seminars for ensuring up-to-date condition/technological literacy of educators could increase teachers' confidence. Evidently, teachers' engagement with computers is essential, nevertheless, their ability and their confidence in actually using technology for efficient teaching need not be neglected ([Lim, Tay, Lam-Chiang, & Hui, 2012](#)). That is to say that confidence in the teachers' own use of digital media should not be mistaken for sufficient confidence to instruct others - personal and professional use of computers should be established ([Koç, 2016](#)).

It is obvious from the above that ICT development needs to take account of the profiles of the environment's future users, of their ICT needs and expectations as well as their ICT levels of confidence. Therefore, professional development programs should assess teachers' digital learning motivation profiles and build learning experiences that expand upon the strengths of teachers' beliefs and the conceptual themes of most importance to them. Decisions made during the analysis and design phase of ICT-based training programmes should focus on facts, not hypotheses about the educational context and the final user ([Sercu & Peters, 2002](#)).

In conclusion, the endeavor of ICT integration augments the exigency for specialized teacher training to ensure that ICT is employed in the most proficient and easily adaptable fashion by taking into account future users' views and requirements in the design and development process if the training of foreign language teachers is to benefit from web-based delivery ([Sercu & Peters, 2002](#)). As a result, teachers will benefit from this experience and take a step forward in their individual professional growth along with effectively catering for their students' needs and contributing to education at a global degree ([Esch & Zähler, 2000](#)). With respect to the positive impact of ICTs on ELTs [Jayanthi and Kumar \(2016\)](#) mention several factors including the fact that ICTs can help teachers in preparing, producing, storing and retrieving learning materials that can be interactive and available in multiple formats. Also, recent studies indicate that ELTs greatly appreciate the opportunities that pertain to teaching English with the help of ICT resources, as well as to, receiving training on that aspect; for example in study with Estonian teachers ([Raud & Orehhova, 2017](#)).

8 Conclusions

The paper is following a teacher-led approach towards approaching ELTs professional development through an online training course on LAL. The teacher-centered approach seemed particularly suitable in the context of this exploratory case study, which involved lifelong learning in semi-formal settings. It is also in line with our intention to create a teacher-centered, open learning environment that takes into account the teachers' prior knowledge and experience in an effective way as well as to provide a quality training experience that embeds reflection mechanisms and design scaffolds.

The UNESCO ICT-CFT served well as the basis to model and profile the participant teachers. Nevertheless, the fact that all participants live in Cyprus forbids generalizations and represents a limitation of the study. This limitation touches upon the potential impact of the participants selection on the generalizability of the findings since all the participants live in the same country. Consequently, a suggestion for further research includes participants from several countries. Yet, the impact of these limitations remains to be evaluated. An additional way of garnering valuable information on ICT levels of ELTs would constitute the topic of further research that could consist of actual research in classrooms in order to gain an additional data source and obtain more detailed insights into the nature and impact of the ICT affordances described in this paper. Teacher focus group discussions and interviews could supplement this evidence.

The profiling of ELTs can be considered as part of a needs analysis methodology. There is evidence that the lack of such an analysis can negatively affect the relevancy and the quality of any educational endeavor ([Mavroudi & Hadzilacos, 2013](#)); herein, the online training program of ELTs. In turn, this can lead to low-impact (online) professional development programs for the participant ELTs. On the other hand, knowing the trainees' experiences and

preferences can contribute towards the creation of more effective and relevant (online) training environments and programs; consequently leading to increased retention of the subject matter of the training which can be transferred to the English language courses of the ELTs' classrooms. In addition, the suggested profiling methodology, which is based on a well-established competency framework for teachers, can contribute to the creation of a competency-based professional development model for ELTs with respect to the use of ICT. In conclusion, attending to teachers' professional knowledge and practice in ICT can contribute towards the development of a dynamic and contextually sensitive ICT culture in EFL education. The challenge undoubtedly lies in providing appropriate, relevant and accessible professional development opportunities for teachers to meet their ICT needs, helping them to improve for the sake of better realising their role as foreign language teaching professionals of the 21st century.

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Highlights

- Preferences of English Language Teachers of an online training course are discussed.
- The study identifies preferred methods and formats to be incorporated in the course.
- It gauges teachers' confidence levels regarding their competencies on the use of ICT.
- It examines demographics in relation to teachers' perceptions on their competences.
- Implications involve both the course development and the teachers training research.

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