

TEACHING ESP WITH ICT IN HIGHER EDUCATION: FOREIGN LANGUAGE TEACHERS' PERCEPTIONS AND EXPECTATIONS OF COMPUTER TECHNOLOGY USE IN FOREIGN LANGUAGE LEARNING AND TEACHING

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Abstract

Introduction: In recent years, the rapid diffusion of knowledge and the use of the web have posed a number of challenges in the context of changing teaching and learning and have affected the traditional teaching and learning methodologies. Most teachers in the higher education sector recognize the need for a teaching method using VLEs (Virtual Learning Environments) facilities.

Purpose: This study sets out to give a general overview of the availability of technology for foreign language (FL) teaching and learning today, to outline the various uses of ICTs (Information and Communication Technologies) in the higher education sector and to point towards future developments and possible implementation in the teaching of ESP (English for Specific Purposes) in higher education in Greece. The study aimed to examine teachers' perception, motivations and engagement with learning technology in their ESP classes.

Method: The study was carried out in 2011. A questionnaire was sent to university teachers of ESP in 6 universities and one technological institute. A sample of 97 ESP teachers from different departments was taken and data collection was done through a survey. 75 responses (77%) were received.

Results and Discussion: ESP teachers in higher education employ traditional teaching methodology and do not use ICT in their classes. The majority (89%) uses ICT in their daily life but do not apply it in classroom practice. However, they have positive expectations of ICT use in foreign language learning.

In conclusion, these brief findings illustrate some of the teachers' experiences of the use of learning technologies in their ESP teaching. Main area of concern in this study on ICT use in ESP classes in higher education has been helpful to know to what extent they actually employ or would like to employ learning technologies.

This study highlights the need for more extensive ICT use in ESP.

Introduction

In Europe, there is a growing interest in using modern technologies to facilitate the process of teaching and learning at higher education level. The

introduction of new learning technologies, the fast expansion of the Internet and the introduction of the World Wide Web (www) have made momentous changes in education (Bates, 2005). The application of the new European Credit Transfer System (ECTS) in all subjects involves significant changes which concerns all levels of the curriculum even foreign language teaching. Key competencies must be acquired and ICT acquires a prominent role within materials and resources. Higher education in Greece has also undergone profound changes due to technological advancements. These advancements have influenced the methodology used by educators who teach a foreign or a second language.

The Use of ICT in FL Education

ICT use in general terms is any use of “computing devices such as desktop computers, laptops, software, or Internet for instructional purposes” (Hew & Brush, 2007, p. 225). However, more specifically it refers to the use of technology by teachers for instructional preparation, instructional delivery, and technology as a learning tool for students (Inan & Lowther, 2010). The use of ICT in foreign language (FL) education, has developed from the earliest stages in audio tapes, word processing, and CD-ROM (Becker et al., 1999; Evelyn & Oliver, 1987) to Internet browsing, online interaction with peers and people of similar interests using Computer Mediated Communication (CMC), synchronous and asynchronous, such as chat, video conferencing, whiteboard, discussion forum, social networking sites, email and other forms of technology including blogs, wikis, iPod, and MP3s (Murray, 2005). The extensive use of Web 2.0 components, Internet, blogs, e-groups, emails, socializing portals, e-dictionaries, e-encyclopaedias, PowerPoint presentations, webcasting, and audio-video, as teaching tools has emerged in the classroom. Combining several of the previous tools and integrating multimedia services one can create a virtual learning environment (VLE) that offers not only content management and exams servicing but also an innovative teaching method that can increase the active role of student in the classroom. Such innovative tools for language learning, as MOODLE and Webinar, enable the management of online learning, provide a delivery mechanism, student tracking, assessment and access to resources (JISC, 2008). These tools brought about a more learner-centred approach and an increased focus on interaction among students and teachers. Warschauer (1996) considers that their use creates authentic learning environments and allows the combination of reading, writing, speaking and listening in a single activity. Thus, ICT contributes in creating authentic learning environments.

ICT application for teaching/learning purposes in ESP has become an issue of debate in contemporary education. English language teachers were one of the first to realise the benefits of their applications in the field of language acquisition and learning:

However, employment of New Technology based learning in foreign instruction is slow and faced with reticence by many ESP teachers due to lack of awareness, more comfort with text environments, deficient computer literacy and contentedness that technology alone does not deliver educational success. (Virkus, 2008,p.272)

As researchers have previously indicated, the use of ICT tools for educational purposes depends upon the attitudes of teachers toward the technology (Albirini, 2006; Hermans et al., 2008). Teachers' attitudes toward ICT are an important factor that can shape the effective utilization of ICT for educational purposes.

The relationship between student and teacher has undergone an unparalleled change (Barad, 2009). The role of the teacher, the context of learning and the function of the course content have been challenged and need to be redefined as the students are more engrossed in using computers and the web as a means of communication and information. There is a drive for Web-based supports that have been shown to provide prospect for supporting student-centred learning modes (e.g., Dabbagh & Kitsantas, 2005).

Studies in English as a Foreign Language (EFL) education have shown that the main benefits of ICT use in the classroom are pupils' motivation for both language learning and linguistic proficiency (Lee, 2000) as well as increased learning competencies (Jorge et al., 2003). The students display an enhanced sense of achievement and increase in self-directed learning, with the ability to communicate, conduct research and present ideas effectively beyond the confines of the class (Shetzer & Warschauer, 2000). Key findings under ImpaCT2 (www.becta.org.uk) show that the use of ICT tools in teaching and learning has positive effects on learning as it gives pupils greater enjoyment and interest, enhanced self-esteem and an increased commitment to the learning task. In this area previous studies have also shown that teachers have positive attitudes toward online learning and web-enhanced language learning resources (Demetriades et al., 2003; Dogoriti, 2010).

However, the need for teacher involvement is necessary to avoid leaving the technology to control the lessons. ICT can be effective only with the teacher's role as a "facilitator" who plans and guides the lesson (Brandl, 2002). The ELT teacher must also be prepared to assume new roles (McLaren et al., 2005). The complex role of a FL teacher using ICT is described by Cañado (2010), who asserts that the teacher functions as counsellor, tutor, motivator, facilitator, and observer (Yunus, Lubis, & Lin, 2009). The use of technology as a tool to develop the different language skills has received great attention (Dudenney, 2000; Chapelle, 2001; Young, 2003; Yunus, 2007) so that FL teachers are exposed to new practices. A number of different ICT tools and applications may be integrated in teaching and learning.

Background and Objectives of the Present Study

Depending on the scarcity of the discipline based studies regarding the use of Information and Communication Technologies (ICT) in teaching English for Specific Purposes (ESP) in higher education; this study sets out to explore the ICT usage, and the attitudes of foreign language (FL) teachers in universities in Greece. The use of technology in education and in English language education in particular remains a field of study to be explored, mainly because technological advances introduce new instructional possibilities (Murray,

2005). Within this framework, the present study seeks answers to the following questions:

1. What is the present **use** of ICT in ESP in higher education in Greece?
2. Which ICT **resources** (instructional tools and materials) do FL teachers use?
3. What is the **attitude** of FL teachers towards integrating ICT into instruction?
4. What are the teachers' **expectations** of ICT use in ESP?
- 5.

Answers to such questions would serve as the starting point that could lead to designing effective virtual learning environments.

Materials and Methods

The study was carried out in 2011. A sample of 97 FL teachers from different departments was taken, and the usable response rate was 77%. Data analysis was conducted in accordance with the research questions, all of which were concerned with the teachers' attitudes towards using computers in teaching English as a foreign language. In this study, an online survey questionnaire was employed to collect data. The questionnaire that was used to collect data for this research study was developed mainly based on discussions in the related literature (Iding, Crosby, & Speitel, 2002; Bielefeldt 2001; McCormick & Scrimshaw, 2001). It is comprised of three parts:

- The first part included demographic details, with closed questions.
- The second part included 15 items used to measure the present foreign language learning and teaching situation in the university/workplace.
- The third part had 10 items, which questioned the expectations of ICT use in Foreign Language learning. Here the questionnaire was designed as a 5-point Likert scale, where 1=strongly disagree to the concept, 2=disagree to the concept, 3=undecided to the concept, 4=agree to the concept, and 5=strongly strongly favourable to the concept.

Regarding the correspondence between the questions of the questionnaire and the research aspects that each one of them intended to answer, it is mentioned that questions 1-3 were used to collect the demographic data of the participants, while questions 4-12 refer to the first research question. As far as the ICT resources that FL teachers use, questions 13-17 attempt to provide an answer. Questions 18-20 concern the attitude of FL teachers towards integrating ICT into instruction. Finally, the data collected from question 21 were used to address the teachers' expectations of ICT use in ESP. Of course, throughout the analysis, cross-combinations of the aforementioned groups were performed in order to extract other valuable results.

The data collected from the survey were analysed, and statistical measures like percentages and frequencies were derived. When two or more questions from the questionnaire were combined in order to discuss a certain aspect of the

study, the chi squared test was employed in order to verify the statistical independence of the data collected using SPSS. The data collection was limited to ESP teachers in six public universities and one technological institute in Greece. The questionnaires were sent to members of staff in the foreign language departments of the University of Ioannina, the Aristotle University of Thessaloniki, The National and Kapodistrian University of Athens, the Ionian University, the University of Piraeus, the University of Crete and the Technological Institute of Epirus, (Department of Applied Foreign Languages in Management and Commerce). The intended population for this questionnaire research was 97 FL teachers.

Results

As far as the demographic data of the participants is concerned, out of the 75 participants, 78% were females and 22% were males. The age of the male participants ranged from 31-40 (48%) and 40-50 (52%). The age of the female participants ranged from 25-30 (14%), 31-40 (29%), 41-50 (36%) and 50+ (21%). Based on the responses of the 75 foreign language teachers the results are recorded by research question.

Results Related to Question One

The analysis of data shows that higher institutions (universities and TEI) have computer facilities (94%) and Internet access (100%). Research question one was aimed to investigate the levels of ICT use by ESP instructors in higher institutions in Greece. The overall percentage for this category is low (61%), suggesting that ICT are not preferred by ESP teachers. Instead, language instructors prefer the conventional use of textbooks.

Moreover, the analysis of the data revealed that statistically, male and female English teachers use ICT tools at the same level ($p < 0.05$), while the fact that the majority of the teachers (64.3%) who utilizes ICT tools in their workflow are younger than 40 years old is not statistically independent ($p > 0.05$), leading to the conclusion that age of the teacher plays an important role in the integration of ICT tools.

As far as the relevance between the level of studies of the participants and the use of ICT tools during the teaching process, the analysis of the data showed that the teachers with PhDs use ICT tools more often in their classrooms (75%). This difference seems to be statistically important, as the p value of chi-squared test is greater than 0.1.

As far as the first issue of this study concerns, one can notice from Figure 1 that the majority of the teachers participated prefer the use of textbooks (56% against 44%), while only 39% take advantage of the use of ICT in their classes. Additionally, more than 80% of the participants have used ICT tools in their teaching workflow at least one time, while almost all participants (>99%) have access to computers and network infrastructure. When it came to describe more specifically the use of ICT tools, only about the half of the participants (53.4%) stated that they have used ICT in exercising reading, writing or listening skills.

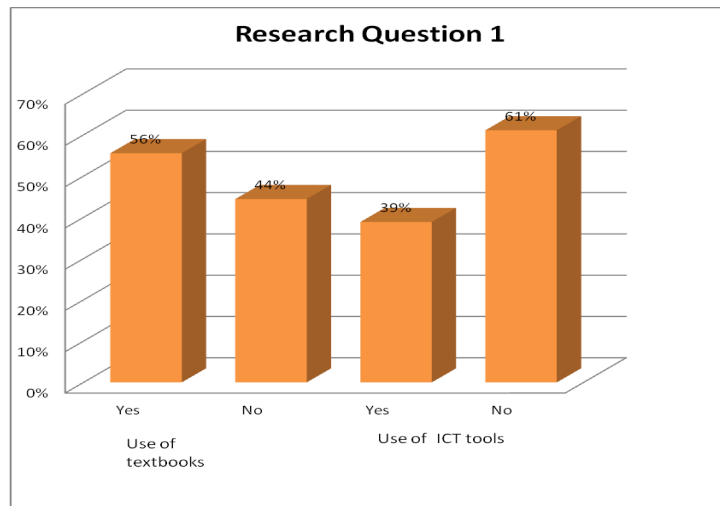


Figure 1. Use of textbooks within teaching workflow against use of ICT tools.

Results Related to Question Two

For the second research question, respondents were asked to answer the questionnaire items that related to their use of online resources. In Figure 2, the most commonly used ICT tools in the ESP teaching workflow are depicted, along with their frequency of use. Respondents were asked to indicate which ICT tools they use in language teaching. Results indicated that what they use mostly are: email to contact students (89%), online materials (83%), PowerPoint slides (78%) and word processors (67%). Other percentages are lower: online platforms (33%), teachers' own websites (28%), wikis (22%), blogs (6%) and discussion forums (6%).

Regarding the quality of the online resources, more than 60% of the participants argued that it is relatively satisfactory. Nonetheless, for the participants who actually use ICT tools in their teaching workflow, the material gathering procedure is rather time consuming, taking under consideration that more than 55% ($p < 0.05$) of the participants need more than two hours to assemble the required material.

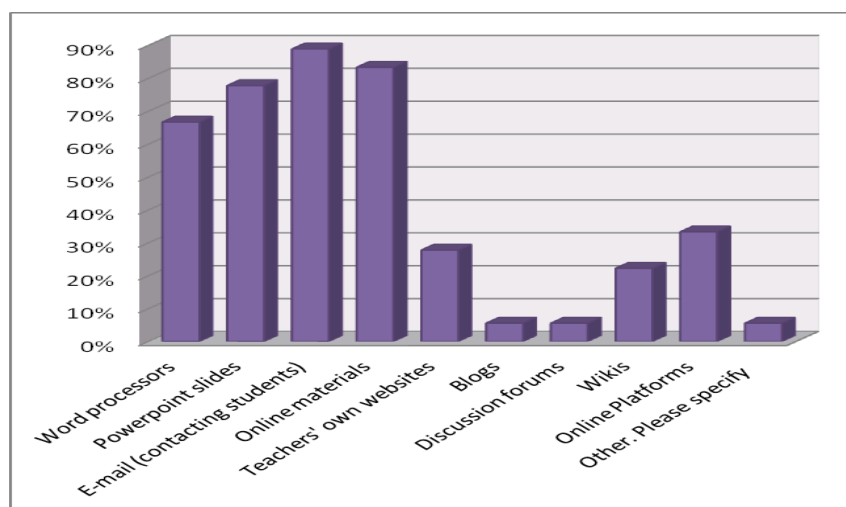


Figure 2. Use frequencies of use of ICT tools.

Results Related to Question Three

Trying to assess the attitude of FL teachers towards integrating ICT tools into their workflow, we notice that 89,5% of the participants actually would agree to use online material in their classroom. It is more interesting to mention that out of this percentage, the 81,4% ($p < 0.05$) are currently not using ICT tools at all in their workflow, emphasizing the willingness of teachers to integrate online material in their classrooms.

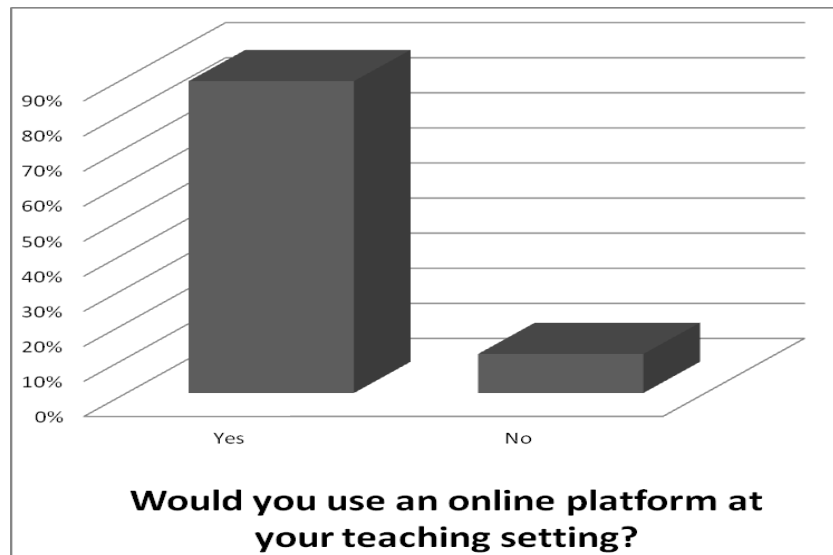


Figure 3. Willingness of EFL teachers to use online ICT tools.

Results Related to Question Four

From Figure 4, one can clearly understand that FL teachers are expecting a lot from the use of ICT tools, especially in the field of students' motivation and communication. For the purpose of answering question four, the respondents were asked to respond to 10 Likert-scale items measuring their expectations of ICT use in ESP. The results are presented in Figure 4. The questions related to the use of web-based material and FLT platforms in particular; 56%, of the respondents agreed that they need to use online learning resources to supplement their books. Other responses were: web-based material will help students to improve their skills (50%) and provide them with practical and useful knowledge (50%) and up-to-date online materials (44%). Concerning the FL platforms, 39% agreed that their use is an effective teaching method whereas 50% remain neutral. They believe that an FL platform can make the work more interesting and imaginative (61%). They also stated that FL platforms can help them teach the foreign language more efficiently (39%), whereas 44% remained neutral. Lastly, they stated that they want to use a lot of online material for their teaching (50%). Regarding the expectations and the possibilities from the use of ICT tools in the teaching workflow, the analysis of the data did not reveal any significant statistical difference between male and female subjects ($p < 0.05$).

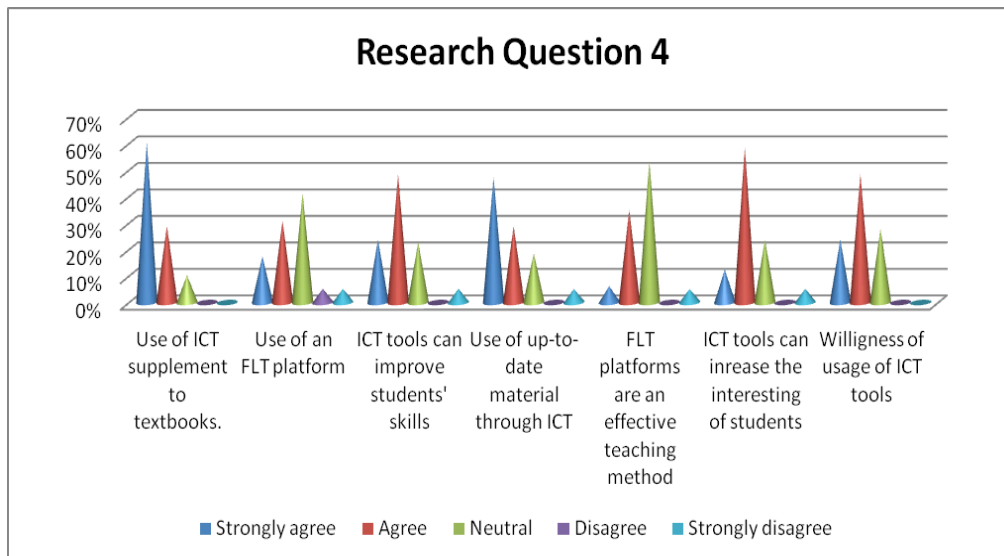


Figure 4. Expectations from the use of ICT tools.

Regarding the expectations and the possibilities from the use of ICT tools in the teaching workflow, the analysis of the data did not reveal any significant statistical difference between male and female subjects ($p < 0.05$). Taking a closer look in the responses of the participants in the study, an important result comes up: Out of the 61% of the teachers who currently do not use ICT tools, 89,5% would agree to use an online teaching platform, a result which indicates that there is willingness to use ICT tools, as long as these solutions provide comprehensive material under an easy to use interface.

Discussion and Conclusion

Notwithstanding the fact that the universities are adequately equipped, ICT use is rather limited. The overall percentage for this category is low (61%) suggesting that ICT is not preferred by ESP teachers. Instead, language instructors prefer the conventional use of textbooks. Mostly teachers in higher institutions tend to use ICT applications and resources for educational purposes, such as the e-mail, power point presentation, word process and other online material. The findings of this study indicate that out of all the ICT tools investigated, VLEs were proportionately at low level. However, the respondents express the belief that they want to use a lot of online material for their teaching (89%) and that a FL platform can enhance teaching. The present study suggests the need for a teacher friendly tool such as a FL platform with organised material suitable for classroom teaching could create the basis for the diffusion of ICT usage. These findings are in agreement with the findings of a former study which examined the perceptions and attitudes towards web-based English as a Foreign Language (EFL) among English teachers in Greece (Dogoriti, 2010). The findings of the online survey suggested that the respondents had positive attitudes toward online learning and expressed the pressing need for a teacher-friendly website to supply web-enhanced English language learning resources and activities. FL teachers in higher education in Greece seem to be interested in adopting ICT resources and tools as they can be applied in classroom use and the procedure is not exceedingly time consuming. Although they seem satisfied from the quality of online resources

they can access and use in the classroom (61%), they need to spend about one to two hours to collect and assess online resources (50%). Teachers are more likely to incorporate ICT use in their classroom if it is related to the nature of their instruction and are convinced that it is compatible with educational goals (Williams, Boone, & Kinsley, 2004).

The quantitative results for this question definitively indicate that the majority of the teachers have a positive attitude towards the use of ICT in teaching and learning process. The results are therefore in compliance with the findings of a prior study by Demetriades et al. (2003), which also provided significant results. The main objective of this study was to investigate teachers' attitude towards the integration of ICT for the enhancement of traditional English language teaching classrooms. The teachers overall, had a very good perception of ICT, knowledge as well as willingness to implement it into their lessons.

To sum up, this study investigated the ICT usage among FL teachers and their attitudes towards ICT. It was concluded that although the infrastructure in universities and TEI is adequate, the ICT use is limited. The teachers' attitude to technology is positive yet they believe that the ICT tools are time consuming and not teacher-friendly and they would like to use an FL platform that would improve ICT integration. However, a further study focusing on the application of such tools with a student sample is required. The study recommends that future researchers need to consider the application of a VLE in ESP in a higher education setting.

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