

NEW TECHNOLOGIES AND LANGUAGE TEACHER EDUCATION: ARE WE THERE YET?

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Introduction

During the last two decades, the use of technology in foreign language education has enjoyed a great deal of attention (Albirini 2006; Boulton, Chateau, Pereiro and Azzam-Hannachi 2008). New technologies represent essential curricular tools and a revolutionary classroom approach, which is believed to assist students in reaching success in learning a language (Eteokleous 2004). Recognizing the impact of the digital revolution, stakeholders and policy makers across the globe have attempted to restructure educational curriculums and update their school facilities, in order to include technology in the teachers' and learners' everyday life (Buabeng-Andoh 2012). Technology, as we know it, may hold great educational potential; however, it may prove to be ineffective if it not properly applied (Giannikas 2020). It is, therefore, vital that the literature is viewed from the perspective of examining the effectiveness of technology rather than technology itself (Zhao and Frank 2003). Zhao's claim indicates that there needs to be a focus on effective professional development, concentrating on the potential value of technology as a tool for teaching, learning, and improving practice. Nonetheless, many language professionals around the globe have been observed to be reluctant to include technology in their classes (Albirini 2006; Stylianou 2012). Papadima-Sophocleous, Kakoulli Constantinou and Giannikas (2014) observed teachers' reluctance of implementing technology in their practice in a study focused on English language lessons that took place in secondary state schools. The researchers found that although most state schools had infrastructures with appropriate facilities, language teachers used the bare minimum of the limited equipment they were offered.

The current systematic literature review found that professional development in the field is limited, and that the role of teachers in technology-enhanced contexts has long been under-explored (Guichon and Hauck 2011). This leads to the foundation for the rationale behind the corpus of the present investigation, as

technology-enhanced contexts have been overlooked and teacher education programs have failed to substantially support language teachers to embrace the implementation of technology in their practice (Cutrim-Schmid 2017).

The present paper aims to 1) present an overview of how far the integration of technology in teacher training programs has come and, 2) to provide suggestions for change and action.

Data Collection

The current article concentrates on peer-reviewed research published in academic journals during the last 20 years, from 1998 to 2018. The journals were to selected by ranking, however, papers were selected by year of publication, research focus and global stance of any language learning context. The search included qualitative and quantitative studies in order to add data from various perspectives. The process was as follows:

1. Key search: 'technology in foreign language teaching' and 'technology in language teacher education' was performed on Google Scholar, EBSCO and ERIC through FirstSearch
2. Articles that did not have the key words 'foreign language' or 'professional development' were excluded
3. The articles were published in journals under the category of technology and language learning/teaching.

Training for the Use of Technology

New technologies have permeated into all facets of our lives, including educational settings (Uluc, 2012). With the new development of technology, the language classroom has changed immensely and the focus has shifted from grammar and learning from rote to using the foreign language as a means to connect with others across the globe (Eaton 2010). In the US, the Office of Educational Technology has developed a National Educational Technology Plan (OET 2010) for

changing education with the help of technology. Moreover, countries with more limited ICT infrastructure are also making an effort to increase the use of ICT (Tella 2007), and across East Asia, considerable enthusiasm is widespread regarding the use of technology in the classroom (Trucano 2012).

Nonetheless, Balanskat, Blamire and Kefala (2006) argue that although educators appear to acknowledge the benefits of technology in schools, difficulties continue to be encountered during the incorporation and adaptation process. Practitioners are hesitant to relinquish what they deem important for good practice, and anything that requires this is likely to be rejected. Teachers, according to Day (1999), have accumulated teaching experience rather than teacher education. In the field of language teaching, Roberts (1998) stresses that teachers are concerned about maintaining control in class and are unlikely to take risks when such innovations are introduced. According to Jones (2003), most language teachers are uncomfortable using technology because they have not become accustomed to computers, unlike their students. Banner and Rayner (2000) argue that foreign language teachers might understandably be even less willing to take risks because of the fact that the lowest levels of on-task behaviour has been recorded to be found in modern language classes.

Despite the amounts of capital spent, Oxford and Jung (2007) have found that technology integration is unsatisfactory in teacher education. Kessler's (2006) study verifies this with the results of a survey of 240 graduates of an MA programme in the US and Canada. Over half of the participants had not undertaken any form of ICT training as part of their coursework, and more than 70% of the respondents felt that they had not been effectively prepared to teach the language with the use of technology. In the UK, government policies have gone to great lengths to empower the teaching workforce so as to raise ICT achievement, which included a massive investment in professional development (Teacher Training Agency, 1999). Some success was recorded with subject-specific training however, the payback from this investment was quite disappointing (Conlon, 2004; Galanouli, Murphy and Gardner 2004). The literature directs those in the field to professional development for language teachers that would help them integrate educational technology into their practice and curricula. Professional development is critical to ensuring that teachers keep up with changes in student performance standards, become familiar

with new teaching approaches and learn how to make the most of educational technology (Lawless and Pellegrino 2003). It has been specified that the need to bridge the gap between the knowledge and skills language teachers need in the classroom (Cutrim-Schmid & Hegelheimer 2014). Research has shown that for the bridging to be accomplished, it is necessary to shift attention towards student teachers, who are in need of experiencing sufficient evidence of the positive effects of a technology-enhanced environment (Hubbard & Levy 2006). For instance, Cutrim-Schmid & Hegelheimer (2014) conducted a study where participants in Computer Assisted Language Learning (CALL) seminars often referred to the unpredictability and risks involved in technology use as major reasons for them avoiding implementing the use of computers, for the first years of the careers at least. This was due to the fact that they did not want their plans derailed by technical problems. Many of the participants stated that they would rather master the requirements of their profession before taking up more risky challenges. Research conducted in Germany by Legutke et al. (2007) has shown that most CALL programs, in their current format, have failed to provide the relevant knowledge-base that enables student teachers to understand and work with the complex demands of their education system. Hubbard (2008) has stated that a demonstrable need to engage technology and language teaching exists, either in practitioners pre-employment or once working. Nonetheless, language teachers are often assumed to have knowledge on how to apply basic IT skills in the classroom, and if training is offered, it is often in the practical use of particular software, rather than the pedagogical essence that would accompany a digital tool (Compton, 2009). Papadima et al. (2015) investigated secondary school teachers' exposure to ICT/CALL training, as seen in Table 1:

	ICT %	CALL %
Part of ICT Training:	41,28	19,77
Part of in-service Training:	50,00	22,67
Part of BA:	2,33	1,74
BA:	1,74	0,00
Part of MA:	4,65	6,40
MA:	0,00	0,00
Part of Doctorate:	2,33	2,33
Doctorate:	0,00	0,00
Other:	2,33	0,58

Table 1: Training related to ICT/ CALL

The frequencies in Table 1 show that only 22, 67% of the participating language teachers had received training in CALL as part of in-service training, and 19, 77% as part of ICT in-service training. It is also worth mentioning that very low percentages of teachers had attended ICT or CALL courses as part of their University graduate or postgraduate degrees. Data revealed that language teachers in Cyprus have little experience in integrating advanced technology in their teaching and limited training to do so. Nonetheless, the study showed that language teachers in Cyprus, who have access to new technologies at their schools, use very basic means of ICT and are reluctant to integrate technology into their language lesson. ICT is mostly used as an add-on teaching tool, rather than a necessary teaching resource (Papadima-Sophocleous et al. 2014). A similar situation was observed in China, where Zhong and Shen (2002) argue that there is much work to be done in order for language professionals to be able to move beyond their existing teaching approaches and embrace new tools and techniques.

According to Dang (2011), teachers generally use ICT to prepare for lessons and to deliver in class. For lesson preparation, the findings of Dang’s study show that teachers search the internet; download relevant materials; design practice activities with word processing; prepare presentations with Microsoft (MS) PowerPoint. Email is also used for communication between colleagues and/or students. For classroom *teaching*, PowerPoint presentations are popular. The internet is also widely used when available, in order to supplement teaching points. Voice recording is sometimes used for recording students’ presentations or for pronunciation practice. It is noticed that software programs such as mind-mapping, education blogs, and voice-threads, are rarely used due to their high level of difficulty in the eyes of teachers.

With technology being in such high demand in global education systems, it is vital that the matter seize to be taken so lightly, as observed in Dang’s (2011) research. The need for the effective use of technology in the classroom has been a key focus in the field of CALL. Along with the need for educational technology, language teacher

development has become an important issue to address in various contexts (Son 2018). Even though we are deep in a digital era, teacher training in the field of educational technology in language teaching has settled for a 'good enough' approach in many contexts. However, all is not lost as there are programs that have been known to provide language teachers with the knowledge, skills development, and motivation they need in order to efficiently integrate technology in their practice.

There are exemplary professional development programmes such as MARCHET (Make Relevant Choices in Educational Technology) in the Netherlands (Rienties, et al. 2013), which was specifically designed to enhance participants' skills be effectively integrating ICT into their teaching. According to research conducted during course, teachers increased their use of technology and became more student-centred (Rienties, Brouwer, and Lygo-Baker 2013). According to Rienties, Brouwer, and Lygo-Baker (2013), the program includes:

- Reflection
- Hands-on workshops
- Extend peer communication
- Modules designed to fit teaching practices

Furthermore, Osama Sulaimani, Suhail Sarhandi and Hussain Buledi (2017) investigate the effects of successful in-service professional development offered at a Saudi Arabian university. Their study examines the impact of CALL in-house trainings based on Technological Pedagogical Content Knowledge in-Action (TPACK-In-Action). The findings of the study suggest arranging training workshops according to teachers' needs when integrating technology in the language classroom. Additionally, the study recommends that an informed institutional policy regarding the use of technology is vital in order to provide training workshops. These decisions should be taken according to the teaching syllabus and its pacing guide, and technology integration should be prescribed as a part of the syllabus.

Finally, IELP-II (Integrated English Language Program-II) was funded by the U.S. Agency for International Development (USAID) to improve English language teaching in Egypt, and is another exemplary professional development program in computer and Internet use (Warschauer 2002). One of the main objectives of the program is to assist Egyptian language educators to make use of new technologies in ways that are appropriate in their own context (Cutrim-Schmid & Hegelheimer

2014). The existing body of literature on professional development in educational development has measured the success of the program by the teachers' satisfaction with the experience and their assessment of the usefulness in their practice. The limitation in this is that pedagogical effect and its demonstration is not investigated via the students' perspective.

Discussion

Although it has been observed that a number of countries around the globe are providing their language teachers with ICT facilities and training, there are not many programs that offer a sufficient level of skills development and motivation the teachers crave for. Concrete competences fail to improve (UNESCO 2003). Training objectives need to go beyond developing teacher competences in the use of ICT and work on helping teachers to use digital tools to facilitate their students' learning. The focus on technology use in many teacher training programs requires careful consideration. It needs to be clear that digital tools must not become the centre of a course. Human teachers, working closely with language learners play the fundamental role, not technology itself. Teacher educators need to assist teachers in thinking deeply about their attitudes and positions toward technology, specifically at a time when digital tools are occupying a substantial part of classroom life, and when newer ones are expected to emerge at high speed (Chao 2015).

Since one of the reasons teachers have been recorded to be hesitant to integrate ICT is because they fear losing control, teacher training should attend to their needs and include ICT management, technical support and troubleshooting. According to United Nations Educational, Scientific and Cultural Organisation (UNESCO 2003), this is a feature of a training program on ICT use which schools simply cannot exist without, considering the fact that frequent unresolved computer breakdowns are experienced, which result in reducing teachers' enthusiasm and motivation. Furthermore, strong emphasis should be made on the use of online tools and the benefits they could have on the language lesson. Collaborative activities, telecommunication, chatting, discussion groups and building online learning communities could provide teachers and learners with a completely different dimension to language education entirely. In accordance with UNESCO (2003), countries which are funded by World Links and Intel do include online tools in their general teacher training, a trend which should spread on a universal level.

In this day and age, it is impossible to exclude ICT from training and teaching. It is vital that language educators take advantage of opportunities to develop their ICT abilities, enrich their technological knowledge and cooperate with colleagues in their schools and beyond; this will give practitioners the opportunity to reflect, inquire and benefit from peer support. Additionally, effective professional development in the field of language teaching and educational technology will provide teachers with the self-confidence and motivation many practitioners lack. Effective ICT training programs can equip teachers with powerful experience which can shift the culture of teaching and professional development from 'working within a comfort zone', to 'language teachers taking charge' where practitioners apply the tools available to them. This will enhance language teaching, assist practitioners in developing as technology literate professionals, make way for a new world of resources and increase students' motivation and interest.

In addition to this, training programs must include administrators, who will benefit from the training as they will come to understand the management issues of new technologies well enough in order to make informed decisions regarding ICT policies and implementation in their contexts. There are exemplary educational policies, such as the Department of Education of the United States (2004) where there is emphasis on the use of technology to deliver online content and assessments for principals, teachers and parents. The content includes student performance and attendance data that can be used to personalize instruction, support decision making and the allocation of resources (Department of Education, United States, 2004). Malaysia follows a similar ICT policy, where administrators use ICT to increase productivity, efficiency, and effectiveness of education management through office automation and data analysis (Ministry of Education, Malaysia, 2003).

There is no doubt that Ministries of Education around the world have a demanding task ahead of them. It is vital that language teachers, and educators in general, are provided with ICT training programs that will not only introduce basic information on technology, but will help them become digitally literate and guide them towards efficiently implementing technology in the classroom. For this to be possible, training objectives need to be reviewed, enhanced and included in pre- and in-service language teacher training. Additionally, Universities that offer Applied Linguistics/TESOL/ESOL/ESL/EFL

courses have a similar obligation towards their students. Their curriculum must be reviewed in order to include ICT modules which will equip language educators/student teachers.

Apart from more efficient training in the use of ICT in language education, language teachers should be provided with the necessary guidelines and support by Ministries of Education worldwide. Furthermore, language learning curriculums should contain details and instructions on how new technologies could be incorporated in the teaching process. Therefore, along with the necessary training in the use of ICT in language education, teachers will be equipped with a well-informed and detailed curriculum that will serve as a lifelong learning tool in the areas of language teaching/learning and educational technology.

Concluding notes and suggestions

Current developments have changed the role of the language teacher over the years. Nonetheless, the question as to whether or not language teachers hold the knowledge and skills for putting technologically-oriented policies into practice successfully remains.

In the present digital era, it is vital that action is taken so that stakeholders and policy makers take initiatives to include 1) the improvement of the use of technology in educational settings, 2) training teachers to use technology in their classes, 3) retraining the current teaching workforce (Lawless and Pellegrino 2007). It is important to take these initiatives to support language learners, who are digital citizens, and improve students' achievement and teaching practices. Successful implementation of effective and content-rich training programmes contribute in supporting Common Core Standards and build a powerful set of expectations for language learning. Building students' digital skills will not only enhance their learning prepare students for life beyond the classroom.

There is a need for more robust research into the effects of professional development and a greater understanding of whether trainees have acquired something relevant, valuable and applicable (Lawless & Pellegrino 2007; Stes, Clement and Petegem 2007). The literature is in need of more studies focusing on classroom-based data collection and investigations within existing teacher training and University programs. Teachers voices need to be heard and taken into serious consideration when teacher training programs are designed. Collaboration among teachers, researchers, stakeholders and policy-

makers can deliver positive results for efficient language learning and teaching in the digital era.

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