



**Shahid Rajaee Teacher Training University
Faculty of Humanities**

ICT Use in Teaching Language Skills and Its Relationship with EFL Teachers' Computer Literacy and Anxiety

By: Samaneh Yadollahi

Supervisor: Dr. M. Rahimi

Reader: Dr. M. Meshkat

**A thesis submitted to the Graduate Studies Office in partial fulfillment of
the requirements for the degree of Master of Arts in Teaching English as
a Foreign Language (TEFL)**

April 2011

In the Name of God



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Dedication

To my beloved family whose unconditional love, encouragement, and support enabled me to realize my academic dream.

To my greatest professor, Dr. Mehrak Rahimi whose endless and ongoing support enabled me to do my best during my academic journey.

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Abstract

The primary purpose of the present study was to explore the most frequent types of Information and Communication technology (ICT) tools currently used by Iranian EFL teachers. Additionally, the relationship among teachers' computer literacy, anxiety, and use of ICT in teaching language skills was investigated. Two hundred and fifty four EFL teachers were selected through stratified random sampling. To gather data from the sample, four data collection instruments including Computer Literacy Self-assessment Scale, Computer Anxiety Rating Scale, ICT use rating scale, and participants' background information questionnaire were used. The data were analyzed using descriptive statistics and inferential statistics including chi square test and correlation analysis. The results revealed that the most frequently used ICT tool in teaching language skills was audio-visual devices and the least frequently used one was network-based tools/applications. While ICT use had a positive and significant correlation with computer literacy, it was inversely related to computer anxiety. The implication is that Iranian EFL teachers have good potential for ICT use in their classrooms regarding their satisfactory level of computer literacy and low level of computer anxiety.

Key terms: Information and Communication technology (ICT), Computer Literacy, Computer Anxiety (Technophobia), ICT use in TEFL.

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Abbreviations

CALL: Computer Assisted Language Learning

CARS : Computer Anxiety Rating Scale

CALI : Computer-Assisted Language Instruction

ICALL : Intelligent Computer Assisted Language Learning

CLSAS: Computer Literacy Self-assessment Scale

CMC: Computer-Mediated Communication

CMLL: Computer-Mediated Language Learning

EFL: English as a Foreign Language

ICT: Information and Communication Technology

PDA: Personal Digital Assistant

PC: Personal Computer

TELL : Technology-Enhanced Language Learning

WWW: World Wide Web

Chapter One

Introduction

1.1. Introduction

The nature of information and communication technologies (ICTs) coupled with globalization have created a distinct information technology environment in the 21st century that is “powered by technology, fueled by information and driven by knowledge” (US Department of Labor, 1999). This new environment has encompassed serious implications for the nature and purpose of educational settings in developed countries (Dede, 2005) and to an increasing extent in developing countries such as Iran (Shahamat & Riazi, 2009).

An overview of ICT developmental plans in Iran reveals that the country has embarked on comprehensive plans to develop ICT infrastructures and to increase ICT use in education very actively. Development of the infrastructure of information and communication technologies (ICTs) in Iran has been at the top agenda of the third and fourth Five-Year

Development Plans (2000-2009). According to Iran's National Document of Development (2006), the government has to consider the following issues with regard to ICT in the course of these plans: ICT use in schooling and higher education, expansion of e-learning and distance learning programs, development of educational software for the national curriculum, expansion of private sectors' role in ICT infrastructure development, and increasing access to ICT tools for schools and universities. The result of investment in this section in the third and fourth Five-Year Development Plans (2000-2009) is a wide access to the internet (more than 25 million people). This has put Iran in rank 13 among top twenty countries around the world with the highest number of internet users (www.internetworldstats.com). All state universities are connected to the internet and most of them have wireless networking. More than 35 million people have mobile phone connection (www.Irantelecom.ir). Research also supports the fact that computer ownership and use is satisfactorily high among Iranian student population and language teachers (Rahimi & Yadollahi, 2010 a).

Notwithstanding a huge improvement in the development of ICT infrastructures and access in Iran, this expansion confronts a major challenge similar to other innovative plans implemented in many different countries with wild speculations about the relationship between technology

availability and teachers' use of technology for instructional purposes. The major challenge includes insufficient research (Albirini, 2006) and theory (Mahdizadeh, Biemans, & Mulder, 2008) related to the ICT needs of the society. The imbalance between theory, research and investment in ICT tool ends up with "casting doubt on the success and cost effectiveness of such initiatives" (Mahdizadeh, Biemans, & Mulder, 2008, p. 143). At this point, little is known about Iranian teachers' technological qualifications, the type of problems they have in using ICT tools, their perceptions and preferences of ICT use in education, their readiness in using ICT tools in terms of required technology literacy and the level of anxiety and negative attitude towards these tools.

In the field of language teaching and learning, the computer-assisted language learning (CALL) and technology-enhanced language learning research have typically focused on increasing teaching effectiveness and learning outcome (Zhao, 2005) through using technology to affect proficiency and achievement, providing feedback, and creating interactive multimedia-based learning facilities and environments (Chen & Liu, 2008; Lee, 2008), while teacher-technology interaction is taken for granted.

Over the years, educational technology has played an important role in the innovation of language education, providing both EFL teachers and learners with more options and flexibility in their teaching and learning

practices. With the internet and computer technology available to most teachers, educational technology has become increasingly essential in language education. In today's schools, online resources, multimedia software, content-based CDs, and many other technological innovations provide students and English teachers with new research tools, infinite sources of information, and assets for professional practices, computer-mediated communication (CMC) tools, and new modes of learning and teaching (Latio, 2009; Keane, 2002). Moreover, availability of the internet in schools has enabled language teachers and students to have a variety of opportunities to expand the curriculum (Oh & French, 2004). Today's schools continue to be challenged by the increased existence, roles and cost of educational technology (Dede, 2005). Considering current trends in education, a modern English classroom would not be complete without computers, software, internet connections, projectors and a variety of high-tech devices (Keane, 2002). In this context, teachers as the most important agent of education should be able to use information and communication technologies actively during teaching-learning process (Ekizoglu & Ozcinar, 2010).

CALL has also been the focus of interest among many researchers in Iran. In this regard, much of the research on CALL has investigated the effectiveness of software program on teaching language skills (e.g. Sadeghi

& Soltanian, 2009), web-enhanced language teaching (e.g. Khany & Changizi, 2010), mobile-assisted language learning (e.g. Motallebzade & Ganjali, 2010), and learners' attitude toward CALL (e.g. Soltani, Sadeghi & Sabziani, 2010). Despite the ever-increasing number of studies regarding CALL in Iran, little research has been done to gain a clear understanding of Iranian EFL teachers' characteristics and their relationship with ICT use. Therefore, more research inquiries in this respect seem to be of vital importance in order to facilitate the effective teaching and learning in CALL environment.

However, there is no doubt that the use of ICT in classrooms remains a challenge for most teachers (Agyei & Voogt, 2011). Therefore, assisting teachers to successfully use ICT tools in their subject teaching is a matter of great importance. In doing so, computer-related constructs such as computer literacy, computer anxiety, and computer attitude should be explored (Hismanoglu, 2010), because these constructs are considered as essential contributors to technology adaptation process (Rogers, 2003).

The primary purpose of the study, thus, is to investigate the most frequent types of ICT tools currently used by Iranian EFL teachers in their classes. In addition, the present study attempts to give an insight into EFL teachers' level of computer anxiety and computer literacy, as well as their relationship with ICT use in teaching practices.

1.2. Statement of the Problem

The problem with the implementation of the current technology in language education is not only regarded to be related to technology tools themselves, but it is also related to their users including teachers and students. According to Albirini (2006), the key element in both technology plans and their subsequent implementation processes is related to the “end-users and real agents of change” (p. 5) in the classroom, namely, the teachers.

Although today’s language teachers may be more familiar with technology in general, they still may not be fully prepared to use ICT in their classes because of negative attitudes toward the benefits of using computer technology in instruction (Sang et al., 2010). Computer anxiety has a potential for influencing computer usage of individuals in a negative way especially teachers, because those teachers who suffer from computer anxiety are more reluctant in using computer technology in their instructional practices (Ceyhan, 2006; Papastergiou, 2010). Research shows that computer anxiety has been identified as a major obstacle to professions that involve the technological revolution (e.g. Rosen & Weil, 1995; Samuel & Abu Bakar, 2006). Evidence is also available that computer anxiety is the main source of teachers’ resistance to use

computers for instructional purposes (Teo, Lee, & Chai, 2008). In the case of language teachers, Lin, Lee, and Chen (2004) argued that those language teachers who showed higher level of anxiety about ICT, are less convinced of the relevance and value of using computers in their classrooms.

Moreover, a number of studies have reported that knowledge and skills in using computers are among major factors affecting teachers' initial acceptance of computer technology and their future behavior regarding computer usage (e.g. Korobili, Togia, & Malliari, 2010; Papastergiou, 2010). Warschauer (2003) believes that in conjunction with the use of ICT in language learning setting, lack of knowledge on how to use computers has created some problems that critically influence the effectiveness of language teaching and learning. According to Konan (2010), in addition to basic "skills of teachership including teachers' teaching ability, world knowledge and subject knowledge, teaching, as one of the information-based professions, necessitate the teachers to be literate not only in ICT itself but also in ICT-use for instructional purposes" (p. 2567).

Furthermore, despite the importance of implementation of ICT tools in EFL instruction and the high demand for using ICT in teaching English these days, the adoption of ICT applications into language teaching and learning process still seems to be going slowly (Levin & Wadmany, 2008). The problem of slow and unsatisfactory use of ICT is more prevalent in