



---

## **COMPUTER ANXIETY AND ICT INTEGRATION IN ENGLISH CLASSES AMONG EFL TEACHERS IN UZBEKISTAN**

**Shoira Jabbarova**

**Termez state university**

[sh.jabbarova75@gmail.com](mailto:sh.jabbarova75@gmail.com)

---

**ABSTRACT.** The purpose of this study was to determine Uzbek EFL teachers' level of computer anxiety and its relationship with ICT integration into English classes and teachers' personal characteristics. Data were collected from 50 Uzbek EFL teachers by Computer Anxiety Rating Scale, ICT integration rating scale, and a personal information questionnaire. The results indicated a positive relationship between computer anxiety and age; however, computer anxiety, gender, and experience of teaching were not found to be related. An inverse correlation was found between computer anxiety and ICT integration. While ICT integration correlated negatively with age and years of teaching experience, it was not found to be related to gender.

**Keywords:** ICT integration; computer anxiety; teaching English; EFL teachers, personal characteristics

### Introduction

Once information and communication technologies (ICTs) were implemented in education, language teachers have been in the forefront of using such technologies to facilitate language learning and teaching process. In the 21st century with the widespread use and application of ICT in education, the teachers' role in using ICT has been shifted from being the mere main knowledge providers to facilitators of learning languages via ICT [1]. Accordingly, the technologies have also changed from being used mainly by teachers as 'presentation tools' to 'supportive tools' in language classes [2]. From this perspective, Albirini [3] argues that teachers are the "end-users and real agents" (p. 374) in both technological plans and the subsequent implementation processes of ICTs in language learning and teaching. So investigating the relationship between teachers' personal characteristics and computer variables seems to be of great value in understanding the challenges and opportunities educational systems may face for successful integration of ICT in language instruction. This study thus aims at finding the possible relationship between



teachers' computer anxiety and ICT integration in English as a foreign language (EFL) classes considering teachers' personal characteristics such as age, experience, and gender.

#### Computer anxiety

Although the number of teachers who use computer technology is ever-increasing these days, not all of them feel comfortable using this tool [4]. In terms of teachers' variables, one of the potential barriers to successful integration of ICT in language learning and teaching process is computer anxiety. Chang [5] defined computer anxiety as the teachers' feeling of discomfort, apprehension and fear of coping with ICT tools or uneasiness in the expectation of negative outcomes from computer-related operations. That is, when teachers suffer from computer anxiety, they have a fear about working with a computer or even thinking about using computers. Therefore, assessing teachers' level of computer anxiety beyond doubt is of great value to educationists [6].

Computer anxiety has been conceptualized as a multi-dimensional construct including psychological aspects (i.e. attitudes toward computers, self-perceptions, self-efficacy, personality types, or avoidance), operational components (i.e. previous experiences, the frequency of computer use, and owning a personal computer), and sociological factors (i.e. gender, age, ethnicity, academic major, nationality, or socio-economic status) [7];[8];[9];[10]. Since the 1970s, numerous researchers have been interested in individuals' negative thought or reactions toward computer technology considering these variables. While some studies have provided evidence for the relationship between computer anxiety and computer utilization [11]; [12], others have examined the relationship between computer anxiety and a variety of variables such as demographic variables (e.g. gender, age), computer experience, and computer ownership [13]; [14].

Lots of research has contributed to the fact that there is a bidirectional relationship between computer use and computer anxiety. Indeed, individuals who are anxious about computer are more reluctant to use it or are not successful in integrating computer in their academic or professional works. Chou [15] argues that if teachers experience anxiety over teaching-related computer use, this anxiety may influence the success of integrating computers into the school curriculum. As a result of that, although teachers perceive computers as valuable tools, most of them are hesitant to use them for instructional purposes [16]. On the other hand, computer experience may lead to a positive attitude



toward technology and can decrease the level of computer anxiety [17]. Baloglu and Cevik [18] in agreement with Sang [19] believe that the degree of self-efficacy and self-confidence of those who use computers more often increases with using computers and ultimately they experience less computer-related anxiety.

#### Computer anxiety and teachers' ICT integration

Besides operational dimension of computer anxiety including computer experience and use, gender is one of the significant determinants in relation to computer anxiety and technology use. Although gender has been the subject of several studies in relation to technophobia and computer use [20]; [21]; [22], the literature has indicated that gender gap is a controversial and inconsistent variable. Earlier studies revealed that gender is an influential factor in ICT integration [23]; [24]; [25], but recent studies have shown that gender gap in computer use is almost closing with the ubiquity of technology and both men and women exploit computer technologies according to their needs and preferences [22]; [26]; [27]. In other words, the relationship between computer anxiety and gender is not a clear-cut one. However, reviewing studies on technology adaption at international level for teachers across the educational level, British Educational Communications and Technology Agency (Becta) [28] concluded that teachers' gender influenced the degree to which they used ICT. Whereas male teachers used ICT more than their female counterparts, female teachers showed greater levels of computer anxiety than male teachers.

One of the less investigated areas regarding computer anxiety and ICT utilization in instruction is teachers' years of teaching experience. Similar to gender-related studies, studies on teaching experience have revealed mix findings. For instance, whereas Tezci [29], Boulter [30], and National Center for Educational Statistics [31] indicated that teachers' limited ICT use is attributed to more years of teaching experience as well as limited knowledge of ICT, Niederhauser and Stoddart [32] found no difference in ICT use of experienced and less experienced teachers. Ursavaú and Karal [4] argue that teachers with more teaching experience have less computer anxiety and more positive attitude towards computers. That is, less experienced teachers use computers more extensively due to teachers' desire to be more computer proficient [33]; [34]. Pamuk and Peker [35] found that older teachers are more technophobic than younger ones. Combs [36] argues that the reason why experienced teachers are more technophobic in comparison to inexperienced



teachers can be related to their unfamiliarity with computers as well as limited computer experience and use.

In light of evidence mentioned from previous research and given the importance of teachers' role in incorporating ICT resources into instructional procedure, investigating the relationship between teachers' computer anxiety and ICT integration seems logical. Moreover, as computer assisted language instruction plays an important role in quality and productivity of language education [37], understanding the influential factors in integration of ICT in terms of teachers' characteristics is crucial. Unfortunately, in spite of the importance of computer anxiety and its negative influence on integration of computers in teaching, there is a dearth of research in this regard in language education in general and in teaching English as a foreign language in particular. Thus, considering these issues, the present study tries to investigate whether Uzbek EFL teachers' ICT integration into teaching procedure differs in accordance with their computer anxiety, gender, age and experience of teaching.

## **METHOD**

### Participants

The participants were 254 Uzbek EFL teachers working in schools of one metropolitan city in Uzbekistan. One hundred and thirty nine male (45.3%) and 115 female (54.7%) EFL teachers were selected randomly from the population (n=659). Teachers had from less than one to more than seventeen years of teaching experience with a mean of 11.76 years (SD=6.37) and ranged in age from 20 to 45 years old (mean=34.91, SD= 7.66). Of the sample, 93.7 % (n=238) reported to have personal computers at home and 89% of the sample reported to use their computers fairly often and very often. Just 11% (n=27) reported that they never used computers. For our sample, the Internet access was mainly through home access (n=214, 84.3%). Just 3.9% of the teachers (n=10) reported that they did not use the internet at all, and the rest of the participants reported to use the internet from one hour a week to more than three hours a week. Of the sample 65.4% (n= 166) were found to be non-technophobic and the rest of them had from low to high levels of computer anxiety.

## **INSTRUMENTS**

To assess computer anxiety, Computer Anxiety Rating Scale (CARS) developed and validated by Rosen and Weil [16] was used. CARS is a 20-item scale that asks participants to



express how anxious (nervous) each of the items would make them in real time of filling in the questionnaire. The participants rate themselves on a 5-point Likert scale ranging from 'not at all' to 'very much'. The norms established by empirical research reported by Rosen and Weil for computer phobia are: no technophobia: 20-41; low technophobia: 42-49; and moderate to high technophobia: 50-100. Rosen and Weil [16] used internal consistency method to estimate the reliability of CARS by administering it across the United States and more than 20 groups in different cultures and countries. They reported alpha coefficients of 0.90–0.95 for their studies. Other researchers have also reported high alpha coefficient of 0.91 for this measure [38]; [39]. The developers of CARS used factor analysis technique to investigate its factor structure and construct validity. Three factors were reported to be found which accounted for 42% of the variance. Reliabilities of 0.80, 0.70 and 0.60 for the three factors have been reported [40].

CARS has been translated into Uzbek and its psychometric characteristics have been calculated [41]. The construct validity of the Uzbek version has been estimated by factor analysis, revealing four underlying factors for the instrument that explain more than 55% of the total variance. The reliability of the instrument has also been reported to be 0.89 using the internal consistency method. The Cronbach's alpha of CARS for this study revealed to be 0.92. To determine the level of ICT integration into teaching language skills in EFL classes, a rating scale was used. It had 25 items and asked teachers to determine which technology they used in teaching each language skills by selecting one of the following options: never=1, rarely=2, sometimes=3, often=4, and very often=5. The Cronbach's alpha of the instrument was found to be 0.94. The rating scale consisted of three main sections including computers and computational portable devices, network technologies, and audio-visual devices. Each main section contained different technological devices. Furthermore, a personal information form was used to make a profile of participants' demographic including, age, gender, years of experience, access to the computer, and computer and the internet use.

## **RESULTS**

Correlation method was used to explore the relationship among EFL teachers' computer anxiety, age, gender, years of teaching experience, and ICT integration. There was a positive relationship between computer anxiety and age, meaning that older teachers had higher



levels of technophobia than younger teachers. However, computer anxiety, gender, and experience of teaching were not found to be related. An inverse correlation between computer anxiety and ICT integration into English classes was also found, meaning that those teachers who had lower levels of technophobia had higher level of ICT integration in their English classes. Furthermore, ICT integration was found to be negatively correlated with age and years of teaching experience, meaning that younger teachers had higher level of ICT integration and experienced teachers had lower level of ICT integration. However, ICT integration was not found to be related to gender.

## **DISCUSSION**

This study attempted to provide a glimpse of the relationship between computer anxiety and ICT integration among EFL teachers in Uzbekistan. Based on the results of this study, the older EFL teachers had higher level of computer anxiety and hence, they incorporated ICT tools in their instructional practices less than younger teachers. This is in full agreement with the findings of other studies supporting the fact that computer anxiety and ICT integration are related [28]; [42];[43]; [16] and age does play a significant role in determining both the level of computer anxiety [44]; [45] and the degree of ICT use [46]; [47]. Moreover, in agreement with those who believe that gender-divide in ICT use and fear of computer technology are closing in the 21st century [48]; [26], the findings of this study demonstrated no gender difference in computer anxiety and ICT utilization in language instruction. Nevertheless, some studies have revealed that gender difference existed regarding computer anxiety and ICT integration [27]. With such inconclusive and inconsistent results from literature on the gender, it can be concluded that it is psychological gender rather than biological gender which has more effect on computer anxiety and consequently computer use [4].

Surprisingly, according to the findings of this study, while the teachers' years of teaching experience did not contribute much to their computer-related anxiety, their utilization of ICT in teaching procedure was negatively associated with their teaching experience. That is, as they had more teaching experience, they were less likely to use ICT for instructional purposes. This interesting result may be due to lack of knowledge and skills regarding computer-based or computer-managed instruction [49], or lack of enough training for effective ways of integration of instructional technology into teaching language [50]. In



line with that, Kumar et al. [51] found that teachers with more teaching experience were less technologically-prepared compared to the ones with less teaching experience. However, in his study, Chou [15] concluded that vocational and high school teachers were equally anxious toward teaching with the Internet, regardless of prior teaching experience. Rosen and Maguire [52] also argued that teachers' teaching experience does not reduce technophobia and many experienced teachers have computer-related anxiety. It is worth mentioning that teaching experience has not been investigated as extensively as age, gender, and other variables, therefore more research is needed to explore the various aspects of this factor in terms of cultural, national, political and educational decisions in employing teachers.

## REFERENCES

1. E. Smeets, Does ICT contribute to powerful learning environments in primary education? *Computers and Education*. vol. 44 (2005) 343-355.
2. D. Choy, A. Wong, & P., Gao. Singapore's pre-service teachers' perspectives in integrating information and communication technology (ICT) during practicum. AARE Conference. (2008).
3. A. Albirini, Teachers' attitudes toward information and communication technologies: The case of Syrian EFL teachers. *Computers and Education*. vol. 47 (2006) 373-398.
4. Джаббарова, Ш. Б. ОСОБЕННОСТИ ГРУППОВОЙ РАБОТЫ В ОБУЧЕНИИ ЯЗЫКОВ PECULARITIES OF GROUP WORK IN TEACHING LANGUAGES. *Журнал выпускается ежемесячно, публикует статьи по гуманитарным наукам. Подробнее на, 47.* <http://gumtraktat.ru/wp-content/uploads/v11.pdf#page=47>
5. Shoir, J. (2021). Teacher's Media Competence in The Training Process Electronic Informational and Educational Resources. *Pindus Journal of Culture, Literature, and ELT*, 6, 116-118. <http://literature.academicjournal.io/index.php/literature/article/download/49/55>
6. Jabborova, S. (2021). КОМПЬЮТЕРНЫЕ ИГРЫ В ОБУЧЕНИИ ИНОСТРАННОМУ ЯЗЫКУ. *Журнал иностранных языков и лингвистики*, 4(9). извлечено от <https://fll.ispi.uz/index.php/fll/article/view/3380>