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Acta Educationis Generalis
Volume 12, 2022, Issue 2

DOI: 10.2478/atd-2022-0013

English as a Foreign Language Teachers' Techno-Cultural Awareness Levels and Self-Reported Competencies

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Received: November 4, 2020; received in revised form: February 12, 2021;
accepted: February 15, 2021

Abstract:

Introduction: In line with technological developments, many educational institutions offer students and teachers technical opportunities to benefit both inside and outside the schools. From the perspective of utilizing technology for a more effective language learning and teaching process, the present study aims to reveal techno-cultural awareness levels and self-reported competencies of secondary school English as a Foreign Language (EFL) teachers working in Turkey.

Methods: A total of 36 secondary school teachers participated in the study, and data were collected through a questionnaire and focus group interview. The focus group interview was conducted after the quantitative data analysis so that the quantitative data results guided the focus group interviews.

Results: The study's findings show that participants have positive attitudes towards using technology in EFL classes However, most participants still feel they are not competent enough to utilize it for instructional purposes. In this context, all participants agree that the education they received during pre-service and in-service training offered by the Ministry of National Education (MoNE) is insufficient.

Discussion: The results obtained from data analysis are in parallel with some other studies. According to the findings, pre-service teacher training programmes need to be developed in line with the needs and expectations of teachers and learners regarding the use of technology in language teaching. Furthermore, it is suggested that teachers should be supported with much more comprehensive in-service training programmes to keep them up-to-date. In this regard, professional development programmes based explicitly on improving teachers' technological awareness would motivate them to teach and significantly impact their self-reported capabilities.

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Limitations: This study was limited to 36 participants working in secondary schools in the same province. Therefore, the results cannot be generalized to all language teachers. Furthermore, the data collection process was carried out using questionnaires and focus group interviews.
Conclusions: What makes this study significant is that teachers are central to the research. From this point forth, the current study results reveal the analysis of the data obtained from a small province of Turkey. However, the study shows significant and representative results because the teachers included in the study are individuals with the same educational levels. They have graduated from different universities in Turkey, and their working environments somewhat reflect Turkey's working environments. Considering the differences between teachers' positive attitudes towards technology utilization in EFL classes and their capabilities, it is argued that in-service and pre-service training programmes should be reviewed to overcome these deficiencies and keep up with the new developments.

Key words: EFL teaching, technology, techno-cultural awareness, teacher training.

Introduction

New technologies that emerged in the second half of the twentieth century have reached the power to change social and economic conditions worldwide. In many parts of our daily life, we live with or without awareness of these technologies. In recent years, one of the technological products that have attracted intense interest is computers. The word computer has come to be heard and used dramatically in our daily lives. Additionally, various mobile devices that offer similar opportunities have also become indisputable tools of our daily lives recently. In other words, technology is becoming a natural part of our lives, and students of all ages are also involved in such a bundle of technology including educational settings. In this context, technology could be considered as an instrument for learning and developing learners' competence.

Moreover, when considering individuals' awareness and competence levels, the term 'techno-culture' has come into prominence in many studies. Techno-culture is the cultural climate built around today's science which is inseparably articulated with technology and turned into a techno-science. The technical reason behind society's goal to be predictable, computable, and controllable is to transform culture quickly to realize its ideology. The material conditions of this transformation are largely formed by the articulation of technology with science.

In addition to the ideas about the perspiration of technology in education, teachers' attitudes towards using their technological facilities and their self-

efficacy beliefs on this issue are of great importance. In this context, whatever the level of technology with which classrooms are equipped or the materials are developed is, the amount at which it could be utilized in formal education is determined by both attitudes and efficacies of the teachers. Needless to say, Turkey has taken considerable steps regarding the integration of technology in nearly every aspect of national education. As part of the FATİH (Movement for Increasing Opportunities and Improving Technology) Project initiated by the Ministry of National Education (MoNE), smart boards were installed in almost all public schools across the country, and tablets were distributed to students. Although the intended efficiency of the distributed tablets is not fully achieved, smart boards are very effective in almost every course, including English. It is obvious that for the new generation born into the age of technology and defined as digital native or generation Z (Csobanka, 2016), if such technological supports are used appropriately and effectively, they can fuel learning. Considering a large number of EFL teachers with various socio-cultural and educational backgrounds enrolled in the national education system, there are still some doubts and worries about whether every or at least a significant number of teachers are acting in parallel with national education policies in this regard.

1 Review of literature

Foreign language teaching has been a matter of problem for many countries' national education policies. The amount of the problem could heavily depend on the countries' familiarity with the target language regarding their socio-cultural and educational background. To Kachru (1985), the current status of English in the world can be categorized in three circles: inner circle, outer circle, and expanding circle. In the inner circle, English is spoken as a mother tongue in countries such as America, England, and Australia whereas it is spoken as a second language in countries such as India, the Republic of South Africa, Pakistan, and Kenya in the outer circle. In other words, in most of these countries, English is used either as an official language or a second language. On the other hand, in the countries located in the expanding circle such as Turkey, Russia, China, and Japan, English is learned and used as a foreign language. The countries included in the expanding circle are expected to make the greatest effort with various facilities to fuel their foreign language teaching policies and processes because of various limitations. In this sense, Cziko (2005) claims that there are a couple of limitations that negatively influence EFL classrooms. Limited amount of exposure to the target language, limited opportunities that could enable learners to use the target language, possible exposure to forms or expressions produced inaccurately by both peers and teachers, the lack of authentic communication production, and EFL teachers' possible unsatisfying language ability and cultural knowledge are the major limitations to list a few. In

order to overcome these limitations, integration of technology into EFL teaching can be claimed to be one of the most important issues that needs to be taken into account by course designers and policy makers in education.

With the rapid technological advancements in the 21st century, language teaching programmes have also had to review and revise their positions. Integrating the activities based on Technology-Enhanced Language Learning (TELL), Computer-Assisted Language Learning (CALL), and Mobile-Assisted Language Learning (MALL) has inevetably sharpened learning and teaching ecosystems. Thousands of useful software, e-books, web pages, and smartphone applications that we can use are also at the service of those who want to learn English. The concept of CALL was first introduced in the United States in the 1960s, and studies began in the US in the 1970s. While CALL was initially a costly undertaking, cost pressures disappeared as a result of the spreading of personal computers and the decline in prices. That is to say, with the widespread use of multi-media and internet opportunities, it has been emphasized that CALL has made significant contributions to the language learning process (Avent, 1994; Aytürk, 1999; Cardoso, 2018; Çakır, 2016; Fox, 1991; Kennedy, 1989; Kurt, 2002; Tuzcuoğlu, 2000; Uzunboylu, 1995).

It is safe to say that encouraging students to use language both inside and outside of the classroom with the help of technology has an undeniable effect on developing learners' attitudes and motivation towards language learning. To do this, it is important for learners and teachers to be familiarized with regarding technologies, and technology-integrated conceptions of language knowledge and skills need to be updated to include the technology-mediated contexts in which language learners communicate and learn. Simply put, as in other disciplines, utilizing technology has an indisputable role in education. Especially, as the requirement for technology use in language teaching is relatively higher in comparison to other fields (Kartal, 2005), the use of contemporary technological facilities for language learning and teaching comes into prominence.

The significant link between language and culture and the mediating influence of technology or techno-culture must be considered by studies on CALL to account for the 21st-century challenges of teaching and communicating across languages and cultures (Sauro & Chapelle, 2017). However, as teachers and material developers need a mechanism to incorporate innovation into teaching, and because the contexts of language learning and use change rapidly, its utilization is still limited to teachers' skills and attitudes. The spirit of innovation seems to be alive in practices that have yielded so many new options for learning from technological affordances. However, for the diffusion of innovation to take place, teachers and future teachers need to develop an attitude of continual openness (Blau & Peled, 2012). So, the roles of teachers cannot be underestimated during planning, designing, implementing, and assessing a

learning-teaching process. From the initial point to the end, integration of technology into language classes heavily depends on teachers' qualifications (Warschauer & Meskill, 2000). Because the change in technology use in classrooms affects not only learners but also their teachers (Wells, Lange, & Fieger, 2008). Therefore, for teachers, speaking the same language as students, keeping pace with these technological developments, and making these technologies a part of their courses have become extremely crucial.

At this point, preliminary issues that come forward are the pre-service and in-service teacher training programs, which have a significant role in shaping the teaching styles. Teacher training programs are the most suitable environments in providing technical knowledge and expertise to prospective teachers (Luke & Britten, 2007). It is commonly argued that pre-service EFL teachers do not gain necessary skills and knowledge for technology use during their teacher training program (Dudeney & Hockly, 2007; Egbert & Thomas, 2001; Gülbahar, 2008; Hubbard, 2008; Kay, 2006; Kessler, 2006; Koehler & Mishra, 2009; Niess, 2005). Receiving inadequate technology courses during university education may be one of the reasons for the failures in using the technology after graduation. Teacher roles that have been changing with technological developments necessitate teacher education to give importance to technology training (Andersson, 2006). Research proves that teachers need training about technology use for educational purposes (Lei, 2009), and in-service and pre-service teachers' perceptions and attitudes towards the use of technology in language classrooms are positive (Aydın, 2013; Çelik, 2013; Lau & Sim, 2008; Park & Son, 2009). Pajares (1992) postulates that teachers' attitudes rather than knowledge have a much greater effect on determining their classroom implications. In this respect, English teachers, who have positive attitudes towards technology are likely thought to be more successful in integrating technology into courses. On the other hand, their attitudes might also be shaped and influenced by their capabilities. More capable individuals tend to develop more positive attitudes towards a concept. Some studies (Cope & Ward, 2002; Sabzian, Gilakjani & Sodouri, 2013) support this idea revealing that more experienced teachers are more reluctant to use technology in language teaching in comparison to relatively more novice teachers. Their attitudes may result from inadequate knowledge about technology and relatively less exposure to it. This situation also reflects the importance of in-service teacher training programs for providing continuous professional development.

There are various research-based studies on EFL teachers' attitudes and competencies regarding technology use for EFL teaching purposes. To start with, in his research which constitutes the starting point of the present study, Albirini (2006) found that EFL teachers who participated in his survey have positive attitudes towards technology use in EFL classes in the general sense. Moreover,

it is implied in the study that EFL teachers' attitudes towards this subject are highly influenced and shaped by their cultural perceptions, experiences, and competence levels. Similarly, in their study conducted with 37 Indian EFL teachers, Cahyani and Cahyono (2012) found that EFL teachers at all levels have a high level of positive attitudes towards technology use. The results proved that the participants' frequency levels of technology use are all found to be high.

One other study conducted by Gilakjani and Leong (2012) aimed to analyze EFL teachers' attitudes from different perspectives regarding their computer training background, computer experience, and computer literacy. The results revealed that even though teachers may have positive attitudes towards technology use in the classroom, they may feel anxious and unable in doing so. The implications made in the light of their findings are providing continuous professional development services and training for the teachers with the intent of enabling them to keep pace with rapidly emerging and growing new technologies.

In a similar study conducted by Aydın (2013) with 157 EFL teachers in Turkey, it was found out that even though most EFL teachers have positive attitudes towards the abovementioned subject, their self-reported competence and self-confidence levels for integrating technology into classrooms in a multi-dimensional way are not satisfying. His findings also indicate that it is important to keep a continuous technical support for teachers to make sustainable peace with developing ICT technologies. Moreover, as Aydın (2013) states, despite numerous studies targeting to reveal the importance and advantages of technology use in EFL teaching, the number of studies targeting EFL teachers' attitudes and competencies considering the subject is limited, especially in Turkey which is aiming to leap forward in technology use in education as well as many other areas. For this purpose, the present study aims to fill the gap in this field regarding EFL teachers' attitudes and competencies, particularly in the EFL context.

2 Objectives of the study

The present study aims to investigate secondary school EFL teachers' attitudes towards technology use in their classes and their self-reported capabilities in doing so. Furthermore, the ultimate aim of the present study is to raise some suggestions and implications for pre-service and in-service teacher training programs regarding possible drawbacks of EFL teachers in using technology for a more comprehensible understanding of target language with its patterns. In this context, the following questions are aimed to be answered in the light of the quantitative and qualitative data:

1) What are EFL teachers' attitudes towards using technology in their classes for more comprehensible language learning and their capabilities in doing so?

2) What are the reasons for EFL teachers' possible negative attitudes towards technology use in their classes?
3) To what extent do EFL teachers think that they are capable of using technology in their classes?
4) What is the proportion of the variance in the attitudes of teachers toward ICT in education that can be explained by the selected independent variables?

3 Method

This is a descriptive study of an exploratory nature, which includes both qualitative and quantitative data collection methods as one part of the triangulation which is defined as the use of two or more methods for collecting data to analyze human attitudes (Cohen & Manion, 1994).

3.1 Participants

36 EFL teachers (25 females, 11 males) from different experience levels ranging between 1 to 8 years working at secondary schools in a small province of Turkey participated in the study. The technological facilities of each teacher's teaching environment are similar to each other. All participants are selected from government schools equipped with FATİH Project that facilitates government schools and students in Turkey with technological equipment. The target group included 39 teachers. However, 3 teachers did not want to participate in the study for various reasons. So, the number of participants was limited to 36.

3.2 Research instrument

Regarding triangulation for increasing confidence and decrease "method-boundedness" (Cohen & Manion, 1994, p. 234), both quantitative and qualitative research instruments are used. Quantitative data are collected through an adapted version of the questionnaire developed by Albirini (2006). The original version of the questionnaire was adapted regarding the views of three experts in the field working at state universities in Turkey as lecturers. Some terms and statements in the original survey were revised considering the developments in the field. For example, the word "computer", which is the target word in the original survey, has been replaced with Information Communication Techologies (ICT). Additionally, the adapted version of the questionnaire was reviewed, and some statements were retyped in the light of the reviews received from three EFL teachers after piloting. The latest version of the questionnaire included 71 items in total.

3.3 Data collection

At the beginning of the spring semester in the 2019-2020 academic year, data collection was conducted in two steps. First, a questionnaire was conducted with

the participants. To prevent any kind of misunderstanding, all of the participants were visited at their schools and each interview was carried out in person to acquire more reliable results. Second, a focus group interview was conducted following quantitative data analysis. Among the 36 participants of the questionnaire, 5 female and 2 male teachers voluntarily took part in the session which was held in a peaceful environment. A professor expert at educational research and another professor expert in the field were consulted for forming the content of the focus-group interview. The focus group interview was held after quantitative data were analysed so that the questions and the discussions were shaped considering the quantitative findings, which lead the participants to comment on the findings. So, even though flexible conversations appeared, a general outline of the questions to guide the interview was prepared in advance.
Also, regarding ethical issues, official permission was obtained from the provincial Directorate of National Education in the province where the study was conducted to enable teachers to participate in the questionnaire and focus group interviews in addition to visiting the teachers at their schools for implementing the questionnaire. Also, each participant was informed about the fact that their demographic information would be included in the present study and none of their personal information would be shared.

3.4 Data analysis

The data analysis procedure was completed in two steps. First, quantitative data were analyzed using Statistical Package for Social Science (SPSS 22). The reliability of the instrument was determined using Cronbach Alpha. A reliability coefficient of 0.88 was obtained, which indicates that the instrument was reliable for data collection. For a more trustworthy analysis, a lecturer, who is an expert at statistical analysis was consulted for the reliability of the data. For the analysis of the qualitative data obtained from focus-group interview, content analysis was used. Each statement on a particular topic targeted for inquiry is cited under that particular heading to be discussed, along with quantitative findings, to support or object to, in whole or in part. The statements made by the participants during the interviews were grouped according to their themes. While some statements regarding the findings were directly included in the study, some ideas were included as emerging themes.

4 Findings

The findings in this study were evaluated both qualitatively and quantitatively. Since the focus group interview was conducted after the analysis of the quantitative data to comment on the results, quantitative data, quantitative and qualitative data were interpreted interrelated to each other.

4.1 Teachers' attitudes towards ICT in education

Participants were asked to respond to 19 Likert-type statements dealing with their attitudes towards ICT in education (Appendix A). The items aim to measure the affective domain of ICT attitude (items 1-6), cognitive domain (items 7-15), and behavioral domain (items 15-19). ICT attitudes of EFL teachers were represented by a mean score on a 5-point scale, where 5 (Strongly Agree) represents the maximum score of the scale and 1 (Strongly Disagree) represents the minimum score.

Table 1

Distribution of mean scores on the attitude towards ICT scale

Scale	*N*	*Min.*	*Max.*	*Mean*	*Std. deviation*
Affect	36	3.33	5.00	4.36	.481
Cognition	36	3.37	5.00	4.46	.355
Behaviour	36	2.80	5.00	4.46	.519
Overall Attitude	36	3.63	4.95	4.43	.345

SD - strongly disagree (1); D - disagree (2); N - neutral (3); A - agree (4); SA - strongly agrees (5).

Table 1 illustrates the distribution of mean scores on the attitude towards the ICT scale. As Table 1 illustrates, teachers' overall attitudes towards ICT were positive with an overall mean score of 4.43 (SD=0.345). The respondents' positive attitudes were evident within the affective (mean=4.36), cognitive (mean=4.46) and behavioural (mean = 4.46) domains.

In the focus group meeting, all participants stated that they used information communication technologies in their classes, supporting quantitative data, and used expressions that supported each other. When the expressions of the participants in the interview were analyzed, the following statements supported the accepted view that ICT technologies should be included in classes. Some emerging themes regarding the topic are as follows:

"I am trying to incorporate ICT technologies into the content of the course as much as I can." (Participants 2, 4, 5, 7)

"I feel that my lessons have been fruitful after the courses I have integrated with ICT technologies." (Participants 4, 5, 6, 7)

Besides, considering that some teachers may be concerned about using ICT technologies, almost all of the participants supported their colleagues with the idea that *"Using ICT does not scare me under normal conditions."* Additionally, a conversation between three participants considering students' concentration loss appeared in the following way:

"ICT technologies can sometimes give harm to my students' concentration. So I can avoid from time to time." (Participant 3)

"I think that when used correctly, ICT technologies help my students to be more positive towards the lesson." (Participant 2)
"With effective management, its benefits, of course, surpasses its harms." (Participant 5)
Furthermore, all of the participants agreed upon the idea that they wish they had received more education on this issue to develop themselves both technically and pedagogically. As a result, it is seen that quantitative data support qualitative data in general and there can be some technical and pedagogical deficiencies of which some of the participants may not be aware beside their positive attitudes. For example, when one of the participants stated that *"As we started talking about ICT in detail here, I realized the fact that I am not aware of detailed ICT utilization in and out my classes."* (Participant 1), and two other participants showed their agreement with that idea.

4.2 Teachers' perceptions about ICT attributes

Participants were asked to respond to 15 (20-34), Likert-type statements dealing with their perceptions about the relative advantage of ICT (items 20-24), their compatibility with teachers' current practices (items 25-29), their simplicity/non-complexity (items 30-33), and their observability (34).
As Table 2 shows, respondents' perceptions of computers' attributes were positive with an overall mean score of 4.13 (SD=0.313). Respondents' positive perceptions varied across the four computer attributes examined in this study. Teachers' responses were most positive about the relative advantage of computers as an educational tool with an overall mean score of 4.48 (SD=0.420). Less positive were teachers' perceptions of the complexity (before the negative items were reversed) of computers with their current practices with an overall mean score of 3.90 (SD=0.447). Also, respondents' perceptions of ICT's attributes were somewhat positive with an overall mean score of 3.99 (SD=99). Lastly, teachers' responses on the observability subscale indicate positive perceptions (4.00, SD=0.755).

Table 2

Distribution of mean scores on the ICT attributes scale

Scale	*N*	*Min.*	*Max.*	*Mean*	*Std. deviation*
Advantage	36	3.20	5.00	4.48	.420
Compatibility	36	3.00	4.80	3.99	.383
Complexity	36	3.00	4.75	3.90	.447
Observability	36	3.00	5.00	4.00	.755
Overall Attribute	36	3.33	4.80	4.13	.313

SD - strongly disagree (1); D - disagree (2); N - neutral (3); A - agree (4); SA - strongly agrees (5).

The expressions of participants during the focus group discussions were not only close to each other's statements but they were also in parallel with the quantitative data on the contribution of ICT technologies to their courses. However, there were also some points at which the participants disagreed with each other. To consider participants' statements regarding their topics, even though *"ICT-supported EFL courses offer advantages over traditional methods"* (Participants 2, 4, 5, 7) is a generally approved idea, participants also agreed upon the statements that *"Over-adherence to ICT technologies poses some challenges when considering the course length and curriculum requirements and Using ICT can confuse me in some situations."* (Participants 1, 3, 6, 7)
Also, some participants realized the fact that there is still a lot to learn about. For example, while one participant was talking about how capable she thinks about using smart boards, she was interrupted by one another participant who asked her some specific questions, which she could not answer, about two applications. Her reaction was like *"Yeah, I guess I may not be able to cover this issue, contrary to what I thought."* (Participant 2)
Although these qualitative findings support the 'advantage' dimension of quantitative findings, 'compatibility' and 'complexity' dimensions are confirmed relatively less satisfactorily. Thus, it can be thought that the participants lack some of the issues they consider themselves sufficient.

4.3 Teachers' cultural perceptions regarding ICT

Participants were asked to respond to 15 (35-49), Likert-type statements dealing with their Cultural Perceptions regarding ICT. In general, participants' responses to the 16 items on the Cultural Perceptions scale were somewhat positive with an overall mean score of 3.53 (SD=0.348).

Table 3

Distribution of mean scores on the cultural perceptions regarding ICT

Scale	*N*	*Min.*	*Max.*	*Mean*	*Std. Deviation*
Cultural Perceptions	36	2.60	4.13	3.53	.348

SD - strongly disagree (1); D - disagree (2); N - neutral (3); A - agree (4); SA - strongly agree

In the focus group interview, the subject of cultural perception was the topic that participants preferred to remain relatively quiet compared to other sections. The participants expressed that they are not sure that ICT technologies can affect students positively or negatively in cultural and social terms. The most frequently emerging ideas about this topic were that ICT technologies could *"help students interact with the outer world", "cause technology addiction" and*

"separate students from friends and families". In other words, participants were confused about the fact that ICT technologies can help students develop themselves in sociocultural aspects, but it could cause them to be isolated from their environment as a result of careless guiding. Additionally, whether ICT technologies should include more fingerprints from Turkish culture, or the outer world was not discussed by the participants even though the researcher tried to get them into that topic.

4.4 Teacher's self-reported competencies in ICT

Participants were requested to mark 22 (50-71) Likert-type items related to self-reported ICT competences. As Table 4 shows, participants' responses to the 16 items on the Cultural Perceptions scale were somewhat positive with an overall mean score of 3.53 (SD=0.348) in general. However, participants' responses vary. While some of the statements received a high level of positive response, the level of participation in some statements remained neutral. This shows that the participants consider themselves technically sufficient in some subjects while they consider themselves less sufficient or inadequate in some other subjects. Regarding new tendencies in educational technology, it is seen that participants need some aid. For example, the statement "Creating multi-cultural interaction environments for students through telecollaboration or similar network tools" which is relatively a new trend in language teaching for supporting learners' multicultural development through real-life interaction received a low level of agreement with an overall mean score of 3.06 (SD=.984).

Besides, statements regarding the ability to keep up with technological developments and to have discussions with colleagues on this issue have also received a relatively low level of agreement with an overall mean score of 3.75 (SD=.906) and 3.69 (SD=.980), respectively. Also, statements related to making use of smart boards and different multimedia sources, and providing authentic material in the classroom received generally positive answers with overall mean scores of 4.14 (SD=1.018), 4.1 (SD=.622), and 4.19 (SD=.889), respectively.

Table 4

Distribution of mean scores on self-reported competencies in ICT

Statement	*N*	*Min*	*Max.*	*Mean*	*Std. d.*
Installing a new software on a computer	36	1	5	3.50	1.082
Using a printer	36	3	5	4.31	.668
Using a computer keyboard	36	3	5	4.36	.593
Operating a word processing program (e.g. Word)	36	2	5	4.28	.659
Operating a presentation program (e.g. PowerPoint)	36	2	5	4.28	.815

Operating a spreadsheet program (e.g. Excel)	36	1	5	2.92	1.025
Operating a database program (e.g. Access)	36	1	5	2.53	1.183
Using the Internet for communication (e.g. email)	36	3	5	4.33	.676
Using the World Wide Web to access different types of information	36	2	5	4.22	.760
Solving simple problems in operating computers	36	1	5	3.89	.979
Operating a graphics program (e.g. Photoshop)	36	1	5	2.97	1.207
Using computers for grade keeping	36	1	5	3.94	.893
Selecting and evaluate educational software	36	1	5	3.69	1.009
Creating and organizing computer files and folders	36	1	5	4.17	.910
Removing computer viruses	36	1	5	3.08	1.131
Making use of smart boards	36	1	5	4.14	1.018
Benefitting from various multimedia resources	36	3	5	4.11	.622
Keeping pace with new technological developments	36	2	5	3.75	.906
Discussing on new technology-based trends with colleagues	36	2	5	3.69	.980
Creating multi-cultural interaction environments for students through tele-collaboration or similar network tools	36	1	5	3.06	.984
Providing authentic texts, audios or videos through internet	36	2	5	4.19	.889
Encouraging students for a better ICT utilization for further grasp of the target language with all its patterns.	36	2	5	3.75	.770
Overall ICT Competence	36	2.55	4.73	3.78	.491

SD - strongly disagree (1); D - disagree (2); N - neutral (3); A - agree (4); SA - strongly agrees (5).

During the focus group interviews, participants used various expressions about how well equipped they think they are in ICT technologies. In addition to the participants who think they are quite sufficient in the technical sense, some participants think they are quite inadequate in terms of software usage. Aside from their technical competence, it is remarkable that the participants quite lack implementing the technologies in the classroom. Especially in the case of telecollaboration, the expressions used in focus group interviews have shown that qualitative data seem to be even more positive than they are. Almost all of the participants in the focus group interview were united around the fact that they *"cannot even fully define the term telecollaboration"*.

Another issue that participants agreed upon regarding ICT in education is the expectation of being provided with increased level of facilities to keep pace with new technological developments. Also, it was suggested by the participants that the education they received at the university and the training they are receiving during the seminar periods seem to be insufficient for them to develop themselves in this aspect and that the school administration and the Ministry of National Education should be more supportive. Some of the participants express their views as follows:

"I don't think that the education I received at the university has trained me enough on this subject." (Participant1)

"Within the scope of in-service training, training should be provided to improve our ability to use technology." (Participant 3)

"I would like our school administrators to give us more opportunities to develop our technology using skills." (Participant 6)

"Ministry of National Education should provide more support to teachers in this aspect." (Participant 7)

On the other hand, some participants were observed to be pleased with their pre-service and in-service training regarding this topic. They claimed that the training they received at undergraduate levels or in-service training they have been taking since they started working as teachers are not insufficient. However, after discussing with their colleagues about the topic, their positive tendencies seemed to have changed slightly to the point of 'it could be better'.

4.5 Proportion of variance in teachers' attitudes explained by the independent variables

A multiple regression analysis was performed to determine the proportion of the variance in teachers' attitudes toward ICT in language teaching which might be expressed by the three independent variables which are ICT attributes, cultural perceptions, and ICT competence. Simple correlations, using Pearson analyses, were first performed to identify independent variables that are in correlation with the attitudes toward ICT dependent variable. To obtain a more accurate prediction of the attitude variable and for showing the proportion of variance in that variable explained by the three independent variables, these variables were used in the multiple regression equation.

Table 5

Correlation analysis of the independent variables for the dependent attitude variable

	N	*r*	*p*
Overall attribute	36	.728**	.000
Cultural perceptions	36	.529**	.001
ICT competence	36	.300	.076

As Table 5 shows, the independent variables that correlate with the attitude variable are attribute (r=728, p=.000) and cultural perception (r=529, p=.001). No significant correlation is determined with the ICT competence independent variable (r=.300, p=.076).

Table 6

Analysis of variance

Sources	*Sum of Squares*	*DF*	*Mean Square*	*F value*	R^2	*Adjusted* R^2	*p*
Model	2.348	3	.783	13.696	.562	.521	.000[b]
Error	1.829	32	.053				
Total	4.177	35					

Furthermore, the summary of the multiple regression results is presented in Tables 6 and 7. The results shown in Table 6 indicated that 52% of the variance in computer attitude was explained by the independent variables included in this study. The test statistic was significant at the 0.05 level of significance (p=.000[b]).

Table 7

Multiple regression on a dependent variable (computer attitude)

Model	*Unstandardized b*	*Standardized b*	*t*	*p*
ICT attributes	.655	.595	4.024	.000
Cultural perceptions	.173	.175	1.222	.231
ICT competence	.086	.123	1.012	.319

As it is observable in Table 7, the results of multiple regression indicate that only one variable affects the teachers' attitudes toward ICT at the 0.05 level of significance despite the level of significant correlation with cultural perceptions (Table 5). The analysis suggests that the determinant independent variable explaining the significant amount of variance in ICT attitudes is ICT attributes (b=0.595, t=4.0324, p<0.05).

5 Discussion

This study investigated the attitudes and self-reported capabilities of secondary school EFL teachers in a Turkish province towards ICT and the relationship betwen teachers' attitudes and a selected set of independent variables. In this section, the research questions will be answered and evaluated in the light of the findings obtained within the scope of the study and comparative interpretations will be made with similar studies in the literature.

What are EFL teachers' attitudes towards using technology in their classes for more comprehensible language learning and their capabilities in doing so?

Background knowledge about a topic is, of course, an important determinant of a person's competence in it. However, the importance of attitude towards a phenomenon should not be underestimated. Pajares (1992) claims that teachers' attitudes rather than knowledge have a much greater effect on determining their classroom implications. In this respect, both quantitative and qualitative data revealed by the present study show that EFL teachers working at the secondary school level consider it important to benefit from technology in language teaching. Partcicipants, to a great extent, agree that they need to make language learning process more efficient by applying cognitive and affective means with the help of technology. The results obtained from this study are consistent with the findings of the similar studies (Albirini, 2006; Aydın, 2013; Çelik, 2013; Lau & Sim, 2008; Park & Son, 2009).

What are the reasons for EFL teachers' possible negative attitudes towards technology use in their classes?

The results in this study prove that teachers do not have a significant negative attitude towards using technology. However, some findings suggest that there may be some situations where teachers can avoid using technology. The reasons for these probable negative attitudes could be teachers' negative self-efficacy beliefs at some points, and their concerns such as class hours and curriculum limitations. At this point, it can be taken into consideration that they cannot use the course hours efficiently because of possible technological requirements. They cannot keep the students under control, especially outside the school and they are worried about keeping up with the innovations that are emerging every day. Also, the importance of teacher training in technology use should not be underestimated (Andersson, 2006; Lei, 2009; Luke & Britten, 2007). The participants' complaints about not getting enough support from the school administrators and the MoNE for professional development cannot be underestimated. Also, some participants' negative attitudes towards technology use might have resulted from their low self-efficacy perceptions on technology use.

To what extent do EFL teachers think that they are capable of using technology in their classes?
Both the results of the qualitative and quantitative data revealed that teachers have very different ideas about using technology effectively in their courses. The point that teachers feel most incomplete is being able to master the technical equipment. They even have difficulties in using smartboard applications, which are the most intensively used tools in classrooms. They agree that they need to be supported with professional development activities to overcome this technical inefficiency. Because every year different practices emerge, and teachers need to refresh their knowledge on these practices both through central resources and in consultation with their colleagues. Moreover, it can be concluded that the participants' self-efficacy beliefs in technology use in education are not the problem they faced today because they mostly agree that they are dissatisfied with the education they received at university. This inference supports the claims of Dudeney and Hockly (2007), Egbert and Thomas (2001), Gülbahar (2008), Hubbard (2008), Kay (2006), Kessler (2006), Koehler and Mishra (2009), and Niess (2005) about the inadequacy of graduate-level teacher training programs regarding prospective teachers' techno-cultural awareness and competence levels.

What is the proportion of the variance in the attitudes of teachers toward ICT in education that can be explained by the selected independent variables?
In the light of the correlation and regression analysis, it is conceivable that participants' attitudes toward ICT utilization in EFL teaching processes, in parallel with Albirini (2006), is in a very strong correlation with their perceptions of ICT attributes in the process. On the other hand, in contrast to some previous studies with the developing technology and the indisputable influence of globalization all over the world, teachers' attitudes towards ICT utilization in their classes are found not to be influenced by either their cultural perceptions or their self-reported competence levels (Albirini, 2006; Al-Oteawi, 2002; Na, 1993; Pelgrum, 2001). This result can be a strong claim about the fact that neither their computer skills nor their cultural perceptions have significant negative influences on EFL teachers' attitudes towards ICT utilization for their profession.

Conclusion
What makes the results of the present study significant is that teachers, the implementers of any educational policy or strategy, are central to the research. Instead of researching whether technology utilization is a determinant factor for a better EFL teaching environment or not, the perceptions of the teachers on this subject are investigated. Considering this context, rather than discussing the

importance of technology integration in the English language teaching process, it seems more important to get information about whether teachers are aware of this variable with its different dimensions or not. This research intended to address the techno-cultural awareness and proficiency levels of secondary school English teachers. However, the study reveals significant and representative results because the teachers included in the study are individuals with the same educational levels, they have graduated from different universities in Turkey, and their working environments somewhat reflect the average state secondary school environments in Turkey. The findings also showed that teachers who participated in this study have positive attitudes towards the use of technology in the general sense and they emphasize the role of technology in making significant contributions to the foreign language learning process.

Furthermore, some of the participants consider themselves insufficient in this issue to some extent. They think both the pre-service education they have received, and the in-service training they take within the policies of MoNE are insufficient and more professional development activities need to be held. So it can be stated that both teacher training and in-service training programs should be reviewed and revised in line with the needs of learners and teachers. Although the advances in technology are innovative, it is the teacher who will be responsible for the implementation of the new technology in the classroom. Therefore, to have a satisfactory practice in teaching in the classroom with respect to recent innovations in technology, teachers' needs and expectations in this sense should be taken into consideration by the authorities and they should take the necessary steps.

It is expected that this study would be a great help of the researchers who will study the same or similar topics. As for the limitations of this study, the number of the participants used as a sampling group (n=36) is not big enough to represent the whole group because they were chosen as a convenience sampling. Additionally, the number of participants in the focus group interview was limited to 7 even though it was planned to be at least 13. The reasons for this were the difficulty in capturing the intervals at which all teachers were available at the same time and the unwillingness of some teachers to participate in the interview for various reasons. Efforts to increase the number of participants could not be successful due to the social distance measures and health considerations caused by the COVID-19 pandemic during the data collection period. Although the study scale has been prepared with the necessary consultations and pilot implementation, it is recommended that the sample size should be considered relatively low and that the content of the study should be repeated with more participants from different studies. In a word, further research can be conducted with more participants from different fields using various data collection techniques.

References

Adanır, O. (2000). *Baudrillard'ın Simülasyon Kuramı Üzerine Notlar ve Söyleşiler*. İzmir: Dokuz Eylül Yayınları.

Albirini, A. (2006). Teachers' attitudes towards information and communication technologies: The case of Syrian EFL teachers. *Computers & Education, 47*(4), 373-398.

Al-Oteawi, S. M. (2002). *The perceptions of administrators and teachers in utilizing information technology in instruction, administrative work, technology planning and staff development in Saudi Arabia* (Unpublished Doctoral dissertation). Ohio University.

Andersson, S. (2006). Newly qualified teachers' learning related to their use of information and communication technology: A Swedish perspective. *British Journal of Educational Technology, 37*(5), 665-682.

Avent, J. (1994). *A study of language learning achievement differences between students using the traditional language laboratory and students using computer-assisted language learning courseware*. USA: University of Georgia.

Aydın, S. (2013). Teachers' perceptions about the use of computers in EFL teaching and learning: The case of Turkey. *Computer Assisted Language Learning, 6*(3), 214-233.

Aytürk, N. (1999). *Bilgisayar destekli öğretimin öğrencilerin ingilizce başarısına ingilizce ve bilgisayara yönelik tutumlarına olan etkisi* (Unpublishes MA Thesis). Ankara: Ankara Üniversitesi Sosyal Bilimler Enstitüsü.

Blau, I., & Peled, Y. (2012). Teachers' openness to change and attitudes towards ICT: Comparison of laptop per teacher and laptop per student programs. *Interdisciplinary Journal of E-Learning and Learning Objects*, *8*(1), 73-82.

Cahyani, H., & Cahyono, B. Y. (2012). Teachers' attitudes and technology use in Indonesian EFL classrooms. *Teflin Journal*, *23*(2), 130-148.

Cardoso, S. (2018). New technologies, multiple literacies and teaching English as a foreign language. *e-TEALS, 8*(1), 1-26.

Çakır, I. (2016). Mobile assisted language learning (MALL). In E. Yaman, E. Ekmekçi, & M. Şenel (Eds.), *Current Trends in ELT* (pp. 170-189). Ankara: NÜANS Publishing.

Çelik, S. (2013). Internet-assisted technologies for English language teaching in Turkish universities. *Computer Assisted Language Learning, 26*(5), 468-483.

Cohen, L., & Manion, L. (1994). *Research Methods in Education*. London: Routledge.

Cope, C., & Ward, P. (2002). Integrating learning technology into classrooms: The importance of teachers' perceptions. *Educational Technology & Society*, *5*(1), 67-74.

Csobanka, Z. E. (2016). The Z generation. *Acta Educationis Generalis, 6*(2), 63-76. https://doi.org/10.1515/atd-2016-0012

Cziko, G. A. (2005). Electronic tandem language learning (eTandem): A third approach to second language learning for the 21st century. *CALICO Journal*, *22*(1), 25-39.

Dudeney, G., & Hockly, N. (2007). *How to teach English with technology*. Harlow, Essex: Pearson Lomgman.

Egbert, J., & Thomas, M. (2001). The new frontier: A case study in applying instructional design for distance teacher education. *Journal of Technology and Teacher Education*, *9*(3), 391-405.

Fox, J. (1991). *Learning languages with computers: a history of computer assisted language learning from to 1990 in relation to education, linguistics and applied linguistics* (Unpublished doctoral dissertation). University of East Anglia.

Gilakjani, A. P., & Leong, L. M. (2012). EFL teachers' attitudes towards using computer technology in English language teaching. *Theory & Practice in Language Studies, 2*(3), 630-636.

Gülbahar, Y. (2008). ICT usage in higher education: A case study on preservice teachers and instructions. *Turkish Online Journal of Educational Technology, 7*(1), 32-36.

Hubbard, P. (2008). CALL and the future of language teacher education. *CALICO Journal, 25*(2), 175-188.

Kachru, B. B. (1985). Standards, codification and sociolinguistic realism: The English language in the outer circle. In R. Quirk and H. G. Widdowson (Eds.), *English in the World: Teaching and Learning the Language and Literatures* (pp. 11-30). Cambridge: Cambridge University Press.

Kartal, E. (2005). Bilişim-iletişim teknolojileri ve dil öğretim endüstrisi. *The Turkish Online Journal of Educational Technology – TOJET, 4*, 82-87.

Kay, R. H. (2006). Evaluating strategies used to incorporate technology into preservice education: A review of the literature. *Journal of Research on Technology in Education, 38*, 383-408.

Kennedy, G. (1989). *Computers in Language Teaching.* (No.ED349749.). Ireland: ERIC Document Reproduction Service.

Kessler, G. (2006). Assessing call teacher training: What are we doing and what could we do better? In P. Hubbard, & M. Levy (Eds.), *Teacher education in CALL*. Amsterdam, Netherland: John Benjamins Publishing Company.

Koehler, M., & Mishra, P. (2009). What is technological pedagogical content knowledge (TPACK)? *Contemporary Issues in Technology and Teacher Education, 9*(1), 60-70.

Kurt, M. (2002). İngilizce okuma becerilerinin kazandırılmasında derinlemesine düşünme stratejisinin uygulanması (Unpublished doctoral dissertation). Ankara: Ankara Üniversitesi Eğitim Bilimleri Enstitüsü.

Lau, B. T., & Sim, C. H. (2008). Exploring the extent of ICT adoption among secondary school teachers in Malaysia. *International Journal of Computing and ICT Research, 2*(2), 19-36.

Lei, J. (2009). Digital natives as preservice teachers: What technology preparation is needed? *Journal of Computing in Teacher Education, 25*(3), 87-97.

Luke, C. L., & Britten, J. S. (2007). The expanding role of technology in foreign language teacher education programs. *CALICO Journal, 24*(2), 253-267.

Na, S. I. (1993). *Variables associated with attitudes of teachers toward computers in Korean vocational agriculture high schools.* (Unpublished doctoral dissertation). The Ohio State University.

Niess, M. L. (2005). Preparing teachers to teach science and mathematics with technology: Developing a technology pedagogical content knowledge. *Teaching and Teacher Education, 21*(5), 509-523.

Pajares, F. (1992). Teacher's Beliefs and Educational Research: Cleaning up a Messy Construct. *Review of Educational Research, 62*(3), 307-332.

Park, C. N., & Son, J. (2009). Implementing computer-assisted language learning in the EFL classroom: Teachers' perceptions and perspectives. *International Journal of Pedagogies and Learning, 5*(2), 80-101.

Pelgrum, W. J. (2001). Obstacles to the integration of ICT in education: Results from a worldwide educational assessment. *Computers & Education, 37*(2), 163-178.

Sabzian F., Gilakjani, A. P., & Sodouri, S. (2013). Use of technology in classroom for professional development. *Journal of Language Teaching and Research, 4*(4), 684-692.

Sauro, S., & Chapelle, C. A. (2017). Toward langua-techno-cultural competence. In C. A. Chapelle, & S. Sauro (Eds.), *The Handbook of Technology and Second Language Teaching and Learning* (pp. 459-472). Oxford: Wiley-Blackwell.

Tuzcuoğlu, Ü. (2000). *Teachers' Attitudes towards Using Computer Assisted Language Learning (CALL) in the Foreign Languages Department at Osmangazi University* (Unpublished MA thesis). Ankara: Bilkent University, The Institute of Economics and Social Sciences.

Uzunboylu, H. (1995). *Bilgisayar öğrenme düzeyi ile bilgisayara yönelik tutumlar arasındaki ilişki* (Unpublished doctoral dissertation). Ankara Üniversitesi Sosyal Bilimler Enstitüsü Eğitim Programları ve Öğretim Anabilim Dalı.

Warschauer, M., & Meskill, C. (2000). Technology and second language learning. In J. Rosenthal (Ed.), *Handbook of Undergraduate Second Language Education* (pp. 303-318). Mahwah, New Jersey: Lawrence Erlbaum.

Wells, P., de Lange, P. A., & Fieger, P. (2008). Integrating a virtual learning environment into a second-year accounting course: Determinants of overall student perception. *Accounting & Finance, 48*(3), 503-518.