

E-readiness of EFL teachers

Emre ÇALIŞKAN [1], Mustafa CANER [2]

To Cite: Çalışkan, E. & Caner, M. (2022). E-readiness of EFL teachers. *Malaysian Online Journal of Educational Technology*, *10*(1),1-15. <u>http://dx.doi.org/10.52380/mojet.2022.10.1.266</u>

ABSTRACT

Integrating recent technologies into the education environment is one of the dynamic requirements for teachers of digital age learners. Such requirements oblige teachers to have adequate technology competence and know-how to integrate them into their pedagogical practices. Thus, the present study intends to illustrate English Language teachers' technology readiness profile in a city located on Turkey's southwestern Mediterranean coast. Adopting a mixedmethod research methodology, the gathered data were examined to answer the research questions. Findings revealed that over half of the participants have decidedly negative attitudes towardstechnology integration, and they are not ready to use them in their teaching environments. Additionally, findings revealed a reverse relationship between teachers' daily technology use and e-readiness in their classroom practices. Thus, results showed that the e-readiness of mostEnglish Language teachers in the region is entirely below the expectations. Concerning the findings, we suggest that functional and pleasing training, either as in-service or certified promotions, should be organized to nurture positive attitudes towards technology use in the classroom and increase teachers' ereadiness and acquaintance with technology.

Keywords: Teachers readiness, EFL teachers, educational technology, ereadiness [1] emrecaliskan@akdeniz.edu.tr Akdeniz University, Antalya/Turkey. ORCID ID: https://orcid.org/0000-0002-6665-7510

[2] mcaner@akdeniz.edu.tr, Akdeniz University, Faculty of Education, Department of English Language Education, Antalya/Turkey. ORCID ID: https://orcid.org/0000-0001-5741-5037

Article History:

Received: 15 February 2021 Received in revised form: 21 March 2021 Accepted: 23 December2021 Article type: Research Article

©2022 MOJET All rights reserved

INTRODUCTION

Technology unavoidably dominates human life in all places, including homes, workplaces, markets, and predictably the sphere of education. In line with its rapid spread, teachers predictably use recent technologies as a tool for instruction to enrich their teaching. The availability of information ubiquitously hasled to a shift in the educational paradigm, and by the 90s, learning was no longer limited to the physical school buildings or the classrooms. Consistent with the paradigm shift in education, the teacher's role and students' responsibilities have changed. For instance, teachers go beyond the sole transmitter of knowledge but facilitator; and students overshadow being passive information receivers but active practitioners. In the same vein, teaching and learning materials used in classrooms were subjected to change, and teachers have employed recent technologies such as podcasts, vodcasts, and other digital forms. Accordingly, digital technologies made substantial development influencing various fields within education. As some scholars claim (Coryell & Chlup, 2007; Uzunboylu, Ekizoğlu & Ekizoğlu; 2009), most educational institutions have evolved their teaching style using various types of technology in many countries.

Current educational technologies cover various instruments and practices such as computers, the Internet, learning management systems, online discussion forums, Web blogs, e-mail, electronic databases, audio, and video conferencing (Vi, 2005; Zhao, 2003). Furthermore, recently innovated technologies such as Web 2.0 tools, podcasts, smartphone applications, and interactive or smart-boards were incorporated into

MOJET

education. With the rapid growth of education technologies, it has become –somehow- compulsory to provide a widerange of technologies within and through learning systems, which correspond to students' concerns, capabilities, and requirements with clearlyspecified learning objectives.

The value-added role of information communication technologies (ICT) as the most widely used form of educational technology is attributed to both their use for particular purposes and their convenience for utilization into instructional procedures rather than to their idling existence in the classroom or the superior characteristics allied to the technologies (Bain, McNaught, Mills & Lueckenhausen, 1998; Jonassen, 2000; Kim & Reeves, 2007). Therefore, a reasonable assumption would pursue the notion that the image of technologies for education should be deemed within its context (Bain et al., 1998; Salomon & Almog, 1998). Various scholars (Kember & Kwan, 2000; Pajares, 1992) believe that the layout of the instructional environments is motivated by the perspectives and alignments of teachersconcerning practical teaching. Thus, it is feasibly normal that the technology used in instructional settings involves observing the learning atmosphere and the scope of learner involvement, the underlying principles for the educational technology use, and views on practical teaching.

In the Turkish context, technological devices such as all forms of ICT tools, smart boards, and computermediated technologies are introduced to classrooms parallel with educational developments worldwide. Like other countries, a substantial transformation in educational scope about introducing the latest technologies in schools and remodelling the course contents and practices are consistent with the recent technologies in collaboration and compliance with policymakers of the Ministry of National Education (MoNE) and other stakeholders. Consequently, Turkey hasmade innovative attempts to increase teachers' educational technology use in the last few decades. For instance, while there were around 2800 technology-endowed classes by the beginning of the new millennium, the number doubled in the next five years by adding 3000 more technology-based classes in all primary, secondary, and college-level education (MoNE, 2016).

Various studies in the field evidenced multiple advantages of technology use in the teaching environments, such as enhancing learners' motivation and success. Likewise, there are plenty of studies on teachers' satisfaction about using technology in the school, both in national and international contexts. The review of available literature revealed that various studies hadexamined the teachers' use of ICT technologies or their impact on instruction. However, the current and available literature revealed that technology integration into learning and teaching environments had not been studied concerning teachers' technological readiness, especially in foreign language teaching environments in the Turkish context. Thus, teachers' readiness regarding technology use (e-readiness) for educational purposes has become a significant question, which requires an answer. Further, examining the association between teachers' e-readiness and other variables such as their educational background, gender, teaching experience, and daily technology use will illustrate their e-readiness. The discrepancies between these variables -if they exist- might provide new dimensions for teacher education programs to improve both the program and quality of pre-service teachers.

Incorporating technology into instruction is characterized as productive and efficient use of technology in all instructional aspects, including the essential infrastructure, curriculum, and schooling environments (Earle, 2002). The literature review illustrated that technology had been used for years in foreign language teaching environments since it enhanced teaching by providing authentic sources for teachers. As Dorathy and Mahalakshmi (2014) claim, the growth of technology has facilitated the expansion of the English language, and the use of technology in language classes has provided students with the chance of fast and permanent learning.

The technology use in educational settings requires a state of full preparedness, willingness, and readiness to employ such practical instructional tools. Parasuraman (2000; 308) describes technology readiness as "people's propensityto embrace and use new technologies to accomplish goals in home life and at work" and as a global attitude associated with a disposition of mental facilitators and obstacles that jointly regulate a person's interest to embrace recent technologies. From a broader standpoint, e-readiness is the extent to which a community is willing to engage in a technology-enriched environment appraised by monitoring the community's projected progression in critical areas for technology acceptance. Over time, especially following the instant circulation of Internet-based technologies and e-learning into education, the

technology readiness notion becomes 'e-readiness', a more umbrella term covering different dimensions of e-learning and associated technology-based instruction. In general, e-readiness is characterized as a community's preparedness to engage in society's information and knowledge (Bridges.org., 2001; CID; 2000). Similarly, Dada (2006) explains e-readiness as the degree to which a society may be enthusiastic and willing to get the advantage of using ICTs. In terms of education, Machado (2007) defines e-readiness as educational institutions' ability and institutional stakeholders' capacity "to generate (e)learning opportunities by facilitating computer-based technologies" – in other words, how e-ready an academic setting is to advance with the educational technologies.

Meadows and Leask (2002) claim that the extent of ICTs' influence depends on teachers' willingness to change their practice in classrooms. Some teachers might be resistant to change; however, so much of the change in education can be regarded as corruption in the broader context. Similarly, obliging teachers to use technology might cause negative pressure. As Goldstein (1997) claims, studies revealed that most teachers use ICTs infrequently and often under a sense of compulsion rather than conviction of its value as an educational medium. Thus, it can be claimed that teachers' e-readiness is noticeably related to their willingness to employ educationaltechnologies in their teaching environments.

Studies on the e-readiness of language teachers have differing focuses, including enthusiasm and teachers' technical knowledge. As Dorathy and Mahalakshmi (2014;132) claimed, technology integration depends on well-informed and passionate "teachers who are motivated and prepared to put technology to work on behalf of their students". There is considerable literature regarding the relationship between teachers' technology use and their teaching experience level. For instance, Singh and Chan's (2014) study revealed that teachers' attitudes towardseducational technology use vary with their years of experience and level of knowledge on technology. Equally, Iromuanya's (2012) study emphasized that educational institutions should organize proper training and undertake ongoing professional developments to fill the gap of inexperienced teachers' readiness for educational technologies.

Having trained in technology use, which prompts teachers' e-readiness, positively affects the initiation and technology use in the classroom. However, it negatively impacts the integration, especially when it requires teachers to hurry the recent technologies without effectively commanding the existing ones. For instance, Cavin's (2007) study exemplified that the pre-service teachers, who have training on educational technology use, were aware of the blessings of teaching with technology and were acquainted with traditional teaching methods that required specific alterations when technology was involved. In another study, Swan (2009), who examined experienced teachers' self-assessments of integrating technology, revealed that experienced teachers who do not have previous training lacked the readiness to change their beliefs of how educational technologies can improve their teaching methods. Similarly, Gray, Thomas, and Lewis (2010) found that in-service teachers in America report a lack of participation in the technology enhancements they expected to implement in their classrooms and feel largely unqualified to integrate technology into their teaching. Singh and Chan (2014) evidenced that although the majority of the teachers in their study demonstrated positive manners towards using technology as a tool for instruction, "they need intensive training in using information technology to facilitate its integration into classroom activities to enhance thinking and creativity". Likewise, Kurt, Sarsar, Filiz, Telli, Orhan-Göksün, and Bardakcı (2019) found that training teachers on the use of Web 2 toolshada positive contribution to their professional development and increased their self-confidence to use these tools in their teaching environments. As Phan and Dang (2017) stated, technical proficiencies strongly influence teacher e-readiness; therefore, to increase teacher ereadiness, training programs should be organized.

Although teachers might have great motivation and willingness in technology integration, their competency in using education technologies becomes a controversial issue due to various dynamics such as educational backgrounds and skills that influence their e-readiness. Studies also unveiled that teachers' characteristics influence the effective integration and use of technology in language classrooms. Therefore, such initiations should be designed to suit the initial technical skills and mindset of teachers. For instance, Karpati, Torok, and Szirmai's (2008) study highlighted a strong correlation between personal characteristics and ICT use accomplishment of teachers. Their finding further suggests that integrating educational

MOJET

technologies and the integration methods might be influenced by teachers' professional and personal self, consistent with the teaching environment and course content.

Besides the role of personal characteristics, skills, and teaching experience, the review of available literature illustrates a significant relationship between teachers' educational backgrounds -e.g., the level of education and the field of expertise- and the level of their e-readiness. On the issue, Gömleksiz (2004), who examined EFL teachers' attitudes and opinions towards using education technology, found that graduates of teacher education programs appear to be better positioned in the use of educational technology. Additionally, his study revealed that teachers recognize the importance of using educational technology; however, they are not eager to use them in their classes due to insufficient technological equipment and lack of support from their administrations.

Several studies also found that the technology readiness of teachers is not over the average level. For instance, findings of a study in the Malaysian context (Kumar, Rose, & D'Silva, 2008) revealed that the actual usage of computers among Mathematics, Science, and English language teachers was moderate. Similarly, Razak, Alakrash, and Sahboun (2018), who examined the English language teachers' readiness and enthusiasm to use the technology, found that their participants were not ready to use the technology to teach the English language teachers' online engagement during the Covid-19 pandemic. Their findings revealed that regardless of previousexperiencein online learning and technological knowledge, language teachers in their study were still attempting to enrich the quality of online learning commitment, and they felt inadequacy, especially in their online learning delivery.Contrarily, a recent study (Hero, 2020) revealed that sampled teachers in the Philippines possessed preparedness for ICT integration.

Apart from teachers' e-readiness, an additional critical issue closely associated with the teachers' e-readiness is the teaching environments' readiness for technology integration. In general, the studies dealing with technology readiness and effective learning within the broad category of technology experience and ICT implementation in educational contexts assumed willingness to use technology predicated on technology access. However, problems experienced regarding teachers' e-readiness can also stem from a lack of schools' readiness in providing necessary, proper, and sufficient educational technologies. For instance, Ali's (2010) study on the strengths and weaknesses ftechnology-enhanced language learning in a university setting revealed the fact that despite their positive attitudes towards technology integration, teachers rarely incorporate technology into their education on account of barriers such as deficiency of technological instruments and financial problems of the school.

Besides the classes and schools' technological equipment, the studies also examine various structural dynamics influencing e-readiness. For instance, Tan Del Rosario (2007) acknowledged the lack of funding for infrastructure and technology-assisted educational materials, insufficient teacher training plans, and teachers' motivation and competency as the obstructions for technology integration in educational settings.Similarly, Petko, Prasse, and Cantieni (2018) claimed that "the use of educational technology in classrooms is dependent on teacher readiness, which, in turn, is strongly influenced by school readiness". Likewise, Howard, Tondeur, Siddiq and Scherer (2020), and Scherer, Howard, Tondeur and Siddiq (2021) found a strong correlation between teachers' perceptions of their readiness and readiness of their institution concerning teachers' discernment of readiness to shift to online teaching.

Turkish researchers from various education disciplines are also interested in teachers' e-readiness and its reflection on educational technology use in the classroom. However, it is possible to claim that teachers' e-readiness is still a new and untouched issue within education contexts in Turkey. Thus, it requires sincere effort and enthusiasm to unveil the complex nature of the phenomenon in line with Turkish national education policies. In one of the studies, which, in a sense, focused on e-readiness, Kabadayı (2006) explored the attitudes and viewpoints of pre-school teachers towards educational technology use in the instructiveprocess. Kabadayı's (2006) study revealed that although teachers are not well motivated to integrate technology into education due to numerous restraints, most of them accept that educational technology has a significant role in enhancing students' success and learning.

Another study conducted by Summak, Bağlıbel, and Samancıoğlu (2010), examined the technological

preparedness of primary school teachers in a Turkish context and found that teachers have a moderate level of technology readiness. Although findings do not differ in terms of age and fields of the teachers, they found a significant relationship between gender and technology readiness. That is, male teachers showed a higher technology readiness than females. Nevertheless, their study uncovered that teachers' technology readiness in general, was not above average, resulting in some technology integration challenges.

As illustrated in the related studies, teachers' e-readiness is a relatively complex issue blended with various dynamics, including personal competencies and preferences, educational backgrounds, educational fields, level of teaching experiences, and quality of teacher training on technology use. Besides the challenges stemming from lack of infrastructure and national and local education policies, the relation between teachers' training, teachers' e-readiness, and educational technology availability in the teaching environment emerge as a parameter, which should be considered. The previous research on discovering the conditions and barriers to effective technology integration has shed some light on teachers' concerns in integrating technology into their classrooms. However, the review of available literature revealed limited research conducted to understand the differential perceptions of teachers' e-readiness within language teaching environments. Specifically, it can be claimed that little is known regarding the general level of the pertinence of teachers' e-readiness in English as a foreign language (EFL) education in the Turkish context. Thus, it is believed that the present study will fill the gap in the existing literature by examining the e-readiness of EFL teachers.

The present study's main objective is to figure outEFL teachers' e-readiness profile, considering the aforementioned dynamics. For this purpose, the present study investigated in-service EFL teachers' e-readiness and their attitudes towards and perceptions of the use of educational technologies in their EFL classrooms. Thus, the present study sought answers to the following research question:

- How do EFL teachers perceive their levels of e-readiness?
- Is there any relationship between e-readiness and EFL teachers' educational backgrounds, genders, teaching experiences, and daily technology use?

RESEARCH METHOD

Research Model

Concerning the present study's aim, quantitative and qualitative data were collected to illustrate the e-readiness profile of in-service EFL teachers. Thus, through a sequential explanatory design, the present study adopted a mixed-method research methodology in general. As it is eminent, the mixed method is a systematic approach for gathering, examining, and integrating quantitative and qualitative data within single research for obtaining a clearer insightinto the research problem (Creswell 2005; Tashakkori & Teddlie 2003; Teddlie & Yu, 2007). The purpose of sequential explanatory design is "to use a qualitative approach to explain quantitative results or form groups based on quantitative results" (Creswell &Plano Clark, 2011). Hence, after collecting the quantitative data, the qualitative data were gathered through focus group interviews with participants, and quantitative and qualitative findingswere presented descriptively in line with the research questions.

Participants

To illustrate the e-readiness of EFL teachers, the whole population, which consists of 1489 in-service EFL teachers working in primary, secondary, and high schools in a city located on the southwest Mediterranean coast of Turkey, were invited to participate in the study. The population's contact information was obtained from their administrations, and all of them were informed about the study. Then, an online questionnaire was e-mailed through disseminating a hyperlink. Since the return rates illustrated that it is rather demanding to reach all the population, the convenience sampling method was preferred to form the sample of the participants. In total, 282 out of 1489 in-service EFL teachers in the region, who agreed to participate in the study, voluntarilyformed the initial sample.

MOJET Malaysian Online Journal of Educational Technology

Nevertheless, due to excluded incomplete questionnaires (n=36),246 EFL teachers working in the region form the actual sample. The sample size is considered sufficient to provide valid data representing the entire population with a 9% margin of error and a 91% confidence level. The demographic data of the participants are presented in Table 1.

		n
Gender	Male	185
	Female	61
Level of Experience	≤ 4 years	24
	5-8 years	32
	9-12 years	75
	13-16 years	67
	≥ 17 years	48
Level of Education	BA Degree in EFL	204
	Master's Degree	28
	Doctoral Degree	14
Subject Area	English Language Teaching (ELT)	204
	English Literature and Linguistics	39
	Translation Studies	3

Table 1. Demographic Profile of the Participants

Data Collection Tool

The present study employed two data-gathering instruments for each data type; an online questionnaire for the quantitative data and focus group interviews for the qualitative data. The e-readiness questionnaire for teachers, which the researchers developed, consisted of two sections. The first section has nine items that question the participants' technology use preferences and demographic information. The second part, which includes 22 items, inquires the participants' e-readiness on a five-point Likert scale.

Thequestionnaire development process started with compiling an item pool that roughly involves 80 statements in agreement with similar studies in the literature. Regarding the research purpose and expert opinion, items with identical wording or those not fit the study were eliminated. Then the questionnaire was piloted before the actual research procedure's commencement in the first round.

The second instrument used for gathering qualitative data is focus group interviews held with the headteachers (n=19) from each district province. The data obtained by focus group interviews were interpreted descriptively, and relevant extracts were used to foster quantitative findings.

Collection of Data

The quantitative data of the present studywas collected through an online questionnaire sent to 1489 in-service English teachers working in different schools in the region via their official e-mails. Although 282 in-service teachers agreed to participate, only 246 were intact and used in the present study. As for the qualitative data, the headteachers of each district (n=19) were interviewed face to face in two rounds. The interviews were video-recorded, and each round was transcribed verbatim.

Data Analysis

The data, gathered through the first section of the questionnaire, was employed to interpret the correlation between e-readiness and the personal variables of participants. Analysis of the items in the second section was computed through descriptive statistics, and responses to each item were summarized in percentages and frequencies. In the interpretation of the outcomes, a cumulative perspective is adopted. While neutral options are left out of concern, opinions on positive (agree/strongly agree) or opposing sides (disagree/strongly disagree) areconsidered unique.

Validity and Credibility

The questionnaire was piloted with 121 in-service EFL teachers out of the actual study area forthe validity and reliability of the instrument. Data gathered for the scale's validity was tested, and the results



(Kaiser-Meyer-Oklin=.67 and Bartlett's = p<.01) revealed that this scale is proper for factor analysis. The factor analysis result indicated that the scale was constructed on three factors with eigenvalues higher than 2.0. Subsequently, items that were on the line of the acceptable level were excluded. Thus, the final version of the questionnaire was reduced to 22 items, which grasp an in-depth picture of the e-readiness of the English language teachers and nine questions related to theparticipants' demographic information. The scale's internal consistency was computed, and its Cronbach Alpha was found .89, which indicates an appropriate reliability level.

FINDINGS

Since the present study focused on investigating EFL teachers' e-readiness, various dynamics and parameters were considered to unveil the e-readiness of in-service EFL teachers. For instance, the participants were asked to appraise their access to ICT devices, social media, and the frequency of their daily technology access through demographic questions to illustrate the general profile of teachers' technology use. Table 2 presents the percentages of technological device use among the participants.

 Table 2. The Frequently Used Technological Devices

	n	%
Smart Phone	220	89.4
Laptop Computer	184	74.8
Smartboard	154	62.6
Tablet Computer	151	61.4
Desktop Computer	108	43.9

The findings illustrated in Table 2 lead us to an assumption that the participants have a remarkable level of access to various types of ICT devices, including educational technology such as smartboards, as one of the prominent actors provided by the government. Even though access to smartboards (62.6 %) and laptop computers (74.8 %) to some extent is maintained independently of teachers' interest, the demographic data regarding the use of remaining forms of technology gives a substantial clue about their enthusiasm in adopting the technological devices in their everyday life practices. Moreover, such an inference is reinforced by the intensity of their use of personal smartphones; that is, most of the participants (89.4%) use their smartphones very frequently. In terms of social media use for teachers' educational purposes, it is found that they use and integrate social media in their teaching environment in a profound way. Concerning the social media use of teachers, it is found that 74 % of the participants use various social media platforms or similar applications to communicate with their students. Concerning the availability of technological devices, while almost all the participants (98.4 %) have technological tools in their teaching environments, only a few (1.6 %) acknowledged that they do not have the essential technological equipment in their classes.

The demographics of the participants additionally revealed that theyspend considerable time using technological devices per day. For instance, while 32.1% of teachers spend 1-2 hours on laptops and tablet computers, 31.3 % spend 3-4 hours on smartphones and smartboards per day, respectively. This finding demonstrates that the participants have somewhat experienced using technological devices in their daily life.

The data related to teachers' weekly technology use and, in turn, their integration in their educational settings is presented in Table 3.



,	3,	
	f	%
 Never	2	0.8
≤ 1 hour	12	4.9
1-2 hours	60	24.4
3-4 hours	76	30.9
5-6 hours	53	21.5
7-8 hours	28	11.4
9-10 hours	10	4.1
≥10 hours	5	2.0

Table 3. Teachers' Weekly Educational Technology Use Ratios

As seen in Table 3, the teachers who integrate and use educational technology in their classes between 3-8 hours every week constitute majority (63.8 %). The findings additionally revealed that while 29.3 % of the participants integrate technology roughly 1 to 2 hours per week, only 0.8% never use technology in their teaching environments. The participants who claim that they use educational technologies for around 10 hours per week were minor in number (6.1 %).

To find an answer to the level of e-readiness of EFL teachers, which was the principal focus of the present study, each item in the second section of the questionnaire is examined independently. The results are presented as percentages in Table 4.

Table 4. The Ratio of Items in the Questionnaire (%)

Statements	SD	D	Ν	Α	SA
I feel secure in my ability to use technology in teaching.	31,7	3,3	12,6	52,4	0
I believe the use of technology embellishes learning environments.	48,8	2,4	6,5	42,3	0
I think using education technology makes my students' learning enjoyable.	52,4	0,8	2,8	43,9	0
I have attended in-service training on using educational technology.	52	0	0	48	0
I believe technology can be an excellent supplement to support teaching.	18,3	14,6	26	41,1	0
I have an affirmative attitude toward the use of technology for language teaching.	53,3	0,8	2	43,9	0
I believe knowing about technology will make me a better teacher.	54,9	1,2	3,3	40,7	0
I think technology integration is more effective than the traditional approach.	48,8	5,3	8,1	37,8	0
I believe technology whets learners' motivation.	0	0	32,1	67,9	0
I have enough knowledge of using technological aids.	37,8	2,8	12,6	46,7	0
I am eager to learn about advances in educational technology.	43,1	1,6	6,1	49,2	0
I use the Internet to retrieve course-related information.	17,1	5,3	20,3	57,3	0
I always encourage my colleagues to use recent technologies in their classrooms.	44,3	2,0	6,9	46,7	0
I can use appropriate Web 2.0 tools for my courses.	28,9	2,4	9,8	58,9	0
I can evaluate the appropriateness of educational software for classroom use.	17,9	10,6	29,3	42,3	0
I believe there is an alliance between student success and teachers' use of technology in the classroom.	18,7	15	26,4	39,8	0
I have access to technology at my school.	48	5,7	10,6	35,8	0
I have sufficient information on some basic computer programs.	17,5	10,2	22,8	49,6	0
I would be more confident while using technology in the classroom if I had trained about it.	28,9	2,4	12,6	56,1	0
I refrain from using educational technology in the classroom for fear of making mistakes.	17,5	12,6	24	45,9	0
I believe that additional training on educational technology will make a remarkable contribution to the performance of teachers.	32,1	0	11	56,9	0
I have a sufficient level of educational technology competence to guide students and enhance education quality in the classroom.	16,3	9,3	15	59,3	0

The overall evaluation of the "e-Readiness Questionnaire for Teachers" revealed that, as seen in Table 4, over half of the participants have varying degrees of negative attitudes towards technology integration in their classrooms. As for the participants' self-confidence in using educational technology in their teaching environment (item 1), it is found that while slightly over half of the participants (52.4%) feel confident, some of them (35%) do not feel confident in using technology. Additionally, it is found that slightly over half of the participants (51.2%) do not believe the contribution of technology to enrich the learning environments (item 2), and barely over half of them (53.2%) believe that technology does not make students' learning more

interesting (item 3). Similarly, the participants' negative attitudes towards technology integration were observed in item 6, in which 54.1% of the participants stated their strong disagreement with the statement.

Similarly, the participants' responses to item 7 showed that slightly over half of the participants (56.1 %) believe that knowing technology use does not contribute to their teaching profession. A correlation analysis is computed between the participants' negative attitudes and their teaching experience to investigate this finding further. It is found that more experienced participants, who spent nine and over the years in teaching, have more negative attitudes towards technology integration. Thus, it is possible to claim that novice teachers show a remarkable positive tendency to technology integration in their teaching environments in line with information society's requirements and the 21st-century teachers' standards.

Apart from teachers' perspectives on technology integration in language education, which profoundly influences their e-readiness, the research investigates the school environment's level of e-readiness for such integration. The data revealed that most schools seem not equipped with appropriate educational technologies to a satisfactory level. Regarding teachers' responses to item 17, it is found that over half of the teachers (53.7 %) do not have access to technology in their school environments.

As reflected in Table 4, most EFL teachers (59.3 %) declared themselves competent in using educational technologies (item 22). Similarly, a considerable number(46.7%) of the participants declared that they have enough knowledge for using technological aids in their classroom (item 10). Equally, 58.9% of the participants claimed they could use appropriate Web 2.0 tools for their courses (item 14), and 49.6% declared they have the necessary level of information concerning the use of basic computer programs (item 18). However, the demographic data illustrates an entirely different picture of their daily engagement with technology in their classrooms. Only a modest numberof the teachers (39%) integrate educational technology in their classes for more than five hours weekly. Despite this confounding picture, the teachers' curiosity and eagerness in having comprehensive knowledge of the latest educational technologies were observed in their responses. Almost half of the participants (49.2%) declared that they would like to learn more about new advancements in educational technologies (item 11).

The participants' responses to item 20 depicted that 45.9% of the teachers became estranged from those technologies due to the probability of misapplication or fear of making mistakes. Similarly, the teachers' reactions to item 21 display a general dissatisfaction concerning the level and content of the additional training, which signposts that most of the participants (56.9%) do not see any contribution of the additional training on the use of information technology for educational purposes. However, an almost similar numberof the participants (56.1%) declared that they would be more confident while using technology in the classroom if they were trained more about it (item 19).

Another concern of the present study is to explore the relationship between the teachers' experience in the profession and their e-readiness. The data analysis uncovered a reverse relation between the teachers'experience in the profession and their tendency to follow the latest educational technologies. As their professional experience increases, they become less motivated and less enthusiastic about integrating computer-aided instruction and less convinced about educational technology's positive impact.

As for the relationship between the teachers' education backgrounds and their e-readiness, it is found that as teachers' level of educational backgrounds advances, they have a more positive approach to integrating technology in education. They expect to be continuously informed about innovations and experience new forms of instruction supported by new media appliances through additional training. Similarly, findings related to the participants' e-readiness and educational background highlighted that, MOJET

graduates of education faculty, who are the majority of the participants, have more positive attitudes and readiness towards integrating the technology into their teaching sphere.

Regarding the relationship between gender and e-readiness, the present study's findings revealed thatfemale teachers are less willing to be informed about developments in educational technology than the male participants' enthusiasm towards innovations in the field. Moreover, it is found that the female participants believe that they need more in-service training on using technology to elevate their confidence in implementing technologies in their teaching environments.

The content analysis of the focus group interviews concerning the participants' perceptions about technology use in the classroom broadened the quantitative findings. The qualitative data analysis revealed a consensus that using technology increases students' motivation and success in language learning. For instance, one of the interviewees (P13) stated that "integrating educational technologies leads to an enjoyable, useful and effective course since students eager to use such tech technologies both in and out of the class." Similarly, they believe that using technology increases teacher motivation, helps teachers teach effectively, gives a chance to appeal to different learning styles, and creates authentic and enjoyable environments.

On the other hand, while believing that using technology affects teacher motivation, some participants (36.8%) found using technology as time-consuming. For instance, one of the headteachers (P3) stated that "technology use in the language classroom demotivates teachers." Additionally, s/he claims that "technology use is like a blade. Sometimes technology demotivates teachers, especially if the teacher cannot successfully use ICT in the classroom, s/he can feel humiliated in front of the children."

The focus group interviews analysis revealed that slightly over half of the interviewees (53%) do not consider technology use as a burden for their profession. For instance, one of the interviewees (P8) stated, "*Technology is even everything for me. Teaching would be very boring and lack without it.*" On the other hand, 47% of the interviewees found the classroom technology a burden for themselves. They have varying reasons for seeing it as a burden based on external factors such as weak internet connection, taking too much time for preparation, and other similar concerns.

In the focused group interviews, the headteachers were asked about their schools' contribution to the technological equipment to unveil the schools' role in the teachers' e-readiness. Many of them (89.4%) stated that their schools had provided adequate technical equipment to use in their language classrooms. However, some of the participants (10.6%) lay the blame on their schools. Additionally, it should be noted that those who blame their schools accepted they have technological equipment in their schools, but their principals do not allow them to use that equipment freely. For instance, one of the participants (P7) stated that "*they* [school principals] worry about broken equipment". Similarly, another participant (P4) said,"I only have a smartboard functioning as a blackboard and some cables which are never used in my classroom. It is a pity...."

When the interviewees were asked whether they were ready to use technology in their classroom or not, most of the interviewees (68.6%) stated that they found themselves ready, 42.4% expressed that they do not feel readyfor technology use in their classroom. For instance, one of the participants (P13) stated, "*In my opinion, I am not ready to use technology. I need help from my students, and it makes me feel muddled in the class*". Furthermore, when they were asked if they needed any in-service training, 63.6% stated they needed more training and guidance in technology use and adaptation in their classroom.

When they were asked about their additional comments on technology integration and their ereadiness, they agreed that teachers should not be forced to use specific materials just for the sake of



technology use in the classroom. They also demand broader Internet access in their schools and novel and gladdening in-service training.

DISCUSSION AND CONCLUSION

Integrating ICTs in language teaching seems like a significant concern and priority of Turkey's national education policy. For this purpose, the MoNE has spent a generous budget to promote the technological groundwork for ICT integration in the schools. Regarding the current practices in the schools and MoNE's initiations, the present study attempted to answer a unique question: To what extent are teachers, especially EFL teachers, ready to use those technologies in their teaching environments?

The overall analysis revealed that slightly over half of the participants have negative attitudes towards technology integration into their learning environments, which indicates they seem resistant to technology integration. Thus, it can be said that in-service EFL teachers are not ready to involve and use recent technologies in their teaching environments. This overall finding shows similarities with Summak, Bağlıbel, and Samancıoğlu's (2010) study, which found that teachers in a Turkish context have a moderate level of technology readiness.

The demographic data analysis revealed that many teachers frequently use and are enthusiastic about technology in their personal lives; however, they are hesitant to use similar technologies in their teaching environments. This finding shows similarities with Goldstein's (1997) study, which indicatedteachers use ICTs often under a sense of compulsion rather than conviction of its value as an educational medium. The finding somehow shows similarities with Kabadayı's (2006) study, which exposed that although most teachers accept the significant role of technology in enhancing students' success and learning, they are not well motivated to integrate technology into their teaching environments. The confounding relation between the teachers' daily use of ICT and their incompetence in the utilization of educational technology despite their willingness in line with technology use initiatives implemented by the MoNE leads us to question the reasons for such a predicament. The research displays that the teachers' difficulties in using educational technology generate certain emotions, resulting in even alienation from the technologies.

As for the access to technology in their schools, many participants declared insufficient access to the technological equipment in their teaching environments. This finding goes along with Ali's (2010) study, which found that teachers rarely incorporate technology into their teaching due to barriers such as the school's deficiency of technological instruments and financial problems. This finding of the present study manifests that MoNE's initiations in line with the schools' technology endowment have not reached the preplanned goal. This finding also showed that the e-readiness of school environments is not sufficiently achieved yet. It can be claimed that this fact manifests the reasons for disappointment and dissatisfaction with the initiations both among teachers and the education community.

Additionally, the quantitative findings revealed that most participants believe educational technology is crucial for teaching foreign languages. However, teachers' lack of confidence and knowledge to utilize such technologies come as a significant barrier for technology integration. This finding aligns with Tan del Rosario's (2007) statement that lack of funding for infrastructure and technology-assisted educational materials, insufficient teacher training, lack of teachers' motivation and competency obstruct technology integration in educational settings. In this respect, it is suggested that pre-service EFL teacher education programs should cover the necessary skills and know-how for the planning, delivering, and integrating technology-based instruction, which potentially stands as a key to the e-readiness of in-service teachers.

The present study's findings also showed that many participants are enthusiastic aboutusing Web 2.0 tools which hint that they might be ready to use educational technologies in their teaching environments. The participants' enthusiasm forusing technology in their classes goes along with Dorathy and Mahalakshmi's (2014) claim that technology integration depends on enthusiastic teachers' existence.

As for the relationship between gender and e-readiness of teachers, it is found that female teachers are less willing to integrate educational technologies than male participants. This finding shows similarity with Summak, Bağlıbel, and Samancıoğlu' study (2010), which discovered that male teachers showed a greater technology readiness than female teachers. Moreover, the findings showed that the female

participants need more in-service training on using technology to elevate their confidence in implementing educational technologies in their classrooms.

Regarding the relationship between teachers' experience in the profession and their e-readiness, the findings revealed that the more experience the participants have in the profession, the more negative attitudes they have towards technology integration. This finding shows similarity with Singh and Chan (2014) and Swan (2009), who found that teachers' perspectives on educational technology use differ with their years of experience and technology knowledge.

The present study's findings uncovered that as teachers' level of education advances, their positive approach to integrating technology and their e-readiness increase. For instance, it is found that graduates of education faculty ELT departments, which are the majority of the participants, have more positive attitudes and e-readiness. This finding shows similarity with Gömleksiz (2004) study, which found that graduates of EFL teacher education programs appear to be in a better position in the use of instructional technology.

The expansion of technology use in daily life and its impact on the workplace has made remarkable changes in the way people live and renew society's demands. Concerning this fact, today's teacher education institutions should try to reform their pre-service teacher training programs and accompanying facilities to minimize the millennial learners' technology demands and learning environments. Nonetheless, such a reform process involves the effective integration of technologies into existing educational contexts. Various studies in the literature (e.g., Karpati, Torok & Szirmai, 2008) revealed that teachers' characteristics influence their technology use in instructional settings and their e-readiness. Likewise, the findings of those studies suggest that the teachers' unique features might shed light on a practical interpretation of the data and give a clear picture of the e-readiness of the EFL teachers. Thus, based on the analysis of participants' self-reported data, the present study's findings revealed that their demographic variables influenced their e-readiness.

A consequence reached while gathering the data is worth mentioning. The present study's data was gathered through an online questionnaire sent to 1489 teachers working in the region through their e-mail addresses obtained from the schools' administrations. However, roughly 20 % of the population has participated in the survey about the teachers' e-readiness on technology use. Most non-participant teachers contacted after the data gathering process stated that they did not frequently check their e-mail accounts; therefore, they did not turn in the questionnaires. Besides participants' hesitation to participate in the study, not checking e-mail accounts often might indicate their e-readiness.

Suggestions

MOJET

The present study has aimed to illustrate the e-readiness of EFL teachers in terms of technology integration and urge policymakers and curriculum developers to generate more effective strategies to overcome the barriers that avert teachers using technology effectively in their classrooms. It is believed that the possible solution, which will influence the accomplishment of technology integration contributing to the worth of education, lies in the investments made in human resource and their readiness to use such technologies in education rather than merely ventures on technology. For this purpose, it is recommended that policymakers, curriculum developers, school administrators, and teachers design various projects to practice at the micro-level, elevating teachers' e-readiness and the intensification of in-service training provided to teachers.

Acknowledgement

This manuscript is based on the M.A. study prepared and defended by the first, supervised by the second author.

REFERENCES

Ali, H.O. (2010). Administrators', teachers' and students' perceptions about the benefits of and barriers to *TELL at Koya University* [Unpublished master's thesis]. Bilkent University, Ankara.

- Bain, J. D., McNaught, C., Mills, C. & Lueckenhausen, G. (1998). Describing computer-facilitated learning environments in higher education. *Learning Environments Research*, 1(2), 163-180.
- Bridges. org. (2001). Comparison of e-readiness assessment models. Retrieved from http://www.bridges.org/ereadiness/tools.html
- Cavin, R. M. (2007). Developing technological pedagogical content knowledge in pre-service teachers through microteaching lesson study [Doctorate dissertation]. Florida State University. Retrieved from <u>http://purl.flvc.org/fsu/fd/FSU_migr_etd-4017</u>
- CID (2000). The readiness for the networked world: A guide for developing countries. Information Technology Group, Center for International Development, Harvard University. Retrieved from <u>http://www.readinessguide.org</u>
- Coryell, J., E. & Chlup, D., T. (2007). Implementing e-learning components with adult English language learners: Vital factors and lessons learned. *Computer Assisted Language Learning*, *20* (3), 263-278. DOI: <u>10.1080/09588220701489333</u>
- Creswell, J. (2003). Research design: Qualitative, quantitative, and mixed methods approaches. Sage.
- Creswell, J. W. & Plano Clark, V. L. (2011). Designing and conducting mixed methods research (2nd ed.). Sage.
- Dada, D. (2006). E-readiness for developing countries: Moving the focus from the environment to the users. *The Electronic Journal on Information Systems in Developing Countries*, 27(6), 1-14.
- Dorathy, A.A. & Mahalakshmi, S.N. (2014). Technology in teaching and learning English language. *International Journal on Studies in English Language and Literature*,2(9), 132-137.
- Earle, R. S. (2002). The integration of instructional technology into public education: Promises and challenges. *E.T. Magazine*, *42*(1), 5-13.
- Goldstein, G. (1997). Information technology in English schools: A commentary on inspection findings (1995–6). London: NCET/OFSTED.
- Gray, L., Thomas, N., & Lewis, L. (2010). *Teachers' use of educational technology in U.S. public schools: 2009* (NCES 2010-040). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington.
- Gömleksiz, M. (2004). Use of educational technology in English classes. *The Turkish Online Journal of Educational Technology*, 3(2), 71-77.
- Hero, J. L. (2020). Teachers' preparedness and acceptance of information and communication technology (ICT) integration and its effect on their ICT integration practices. *Puissant A Multidisciplinary Journal*, *1*, 59-76.
- Howard, S. K., Tondeur, J., Siddiq, F. & Scherer, R. (2020). Ready, set, go! Profiling teachers' readiness for online teaching in secondary education. *Technology, Pedagogy and Education*,v(online first article) DOI: <u>10.1080/1475939X.2020.1839543</u>
- Iromuanya, C. (2012). Novice Teachers and their Preparedness to Integrate Educational Technology into the *Classroom* [Unpublished master's thesis]. Caldwell University, Retrieved from <u>https://www.learntechlib.org/p/120828</u>
- Jonassen, D. H. (2000). Computers as mindtools for schools: Engaging critical thinking. Prentice-Hall.



- Kabadayı, A. (2006). Analyzing pre-school student teachers' and their cooperating teachers' attitudes towards the use of educational technology. *The Turkish Online Journal of Educational Technology*, *5*(4), 3-10.
- Karpati, A., Torok, A., & Szirmai, A.L. (2008). E-teaching readiness of teachers: the effects of personality traits and ICT skills on changes in the teaching style of experienced educators. In Proceedings of the 7th Research Workshop of EDEN, Paris.
- Kember, D. & Kwan, K.P. (2000). Lecturers' approaches to teaching and their relationship to conceptions of good teaching. *Instructional Science: An International Journal of the Learning Sciences, 28*(5), 469.
- Kim, B. & Reeves, T.C. (2007). Reframing research on learning with technology: In search of the meaning of cognitive tools. *Instructional Science: An International Journal of the Learning Sciences*, *35*(3), 207-256.
- Kumar, N., Rose, C.R., & D'Silva, L. (2008). Teachers' readiness to use technology in the classroom: An empirical study. *European Journal of Scientific Research*, *21* (4), 603-616.
- Kurt, A. A., Sarsar, F., Filiz, O., Telli, E., Orhan-Göksün, D., & Bardakcı, S. (2019). Teachers' use of Web 2.0: Education Bag Project Experiences. *Malaysian Online Journal of Educational Technology*, 7 (4), 110-125.
- Lie, A., Tamah, S. M., Gozali, I., Triwidayati, K. R., Utami, T. S. D., & Jemadi, F. (2020). Secondary school language teachers' online learning engagement during the Covid-19 pandemic in Indonesia. *Journal of Information Technology Education: Research, 19*, 803-832. <u>https://doi.org/10.28945/4626</u>
- MoNE. (2009). *Milli Eğitim Bakanlığı 2010-2014 stratejik planı*. Retrieved from <u>https://sgb.meb.gov.tr/Str_yon_planlama_V2/MEBStratejikPlan.pdf</u>
- MoNE. (2012). Fatih Project Position Paper: interactive smartboard, issued by the General Directorate of Innovation and Educational Technologies in the Ministry of National Education on behalf of the Prime Ministry.

 Retrieved
 from

 http://fatihprojesi.meb.gov.tr/upload/fatih
 Project Interactive Smart Board Position Paper.pdf
- MoNE. (2015). *Milli Eğitim Bakanlığı 2015-2019 stratejik planı*. Retrieved from <u>https://sgb.meb.gov.tr/Str_yon_planlama_V2/MEBStratejikPlan.pdf</u>
- MoNE. (2016). *Movement of enhancing opportunities and improving technology project (FATIH*). Retrieved from <u>http://fatihprojesi.meb.gov.tr/en/?page_id=10</u>
- Machado, C. (2007). Developing an e-readiness model for higher education institutions: results of a focus group study. *British Journal of Educational Technology*, *38*(1), 72-82.
- Meadows, J. & Leask M. (2002). Why use ICT? In M. Leask and J. Meadows (Eds.), *Teaching and learning with ICT in the primary school*, (pp.20-38). Routledge.
- Pajares, M. F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, *62*(3), 307–332.
- Parasuraman, A. (2000). Technology readiness index (TRI): A multiple-item scale to measure readiness to embrace new technologies. *Journal of Service Research*,2(4), 307-320. doi: <u>10.1177/109467050024001</u>
- Petko, D., Prasse, D., & Cantieni, A. (2018). The interplay of school readiness and teacher readiness for educational technology integration: A structural equation model. *Computers in the Schools*, 35(1), 1-18. doi: <u>10.1080/07380569.2018.1428007</u>



- Phan, T. T. N., & Dang, L. T. T. (2017). Teacher readiness for online teaching: A critical review. *International Journal Open Distance E-Learn. IJODeL, 3*(1), 1–16.
- Razak, A. N., Alakrash, H., & Sahboun, Y. (2018). English language teachers' readiness for the application of technology towards the fourth industrial revolution demands. *Asia-Pacific Journal of Information Technology and Multimedia*, 7(2-2), 89-98.
- Salomon, G. & Almog, T. (1998). Educational Psychology and Technology: A Matter of Reciprocal Relations. *Teachers College Record*, 100(2), 222.
- Scherer, R., Howard, S. K., Tondeur, J., & Siddiq, F. (2021). Profiling teachers' readiness for online teaching and learning in higher education: Who's ready? *Computers in Human Behavior, 118.* doi: <u>10.1016/j.chb.2020.106675.</u>
- Singh, T. & Chan, S. (2014). Teacher readiness on ICT integration in teaching-learning: a Malaysian Case study. International Journal of Asian Social Science, 4(7), 874-885.
- Summak, S. M., M. Bağlıbel, M. Samancıoğlu (2010). Technology readiness of primary school teachers: A case study in Turkey. *Procedia*, *2*(2), 2691-2675.
- Swan, G. (2009). Information systems in teacher preparation programs: What can we learn from a five-year longitudinal case study of an electronic portfolio database? *Journal of Educational Computing Research*, 41(4), 431-451.
- Tan del Rosario, M. (2007). Technology integration in teacher education programs in the Philippines: An international development perspective. (Unpublished Doctorate Dissertation). Teachers College, Columbia University. Retrieved from <u>https://www.learntechlib.org/p/117374/.</u>

Tashakkori, A. & Teddlie, C. (2003). Handbook of mixed methods in social & behavioral research. Sage.

- Teddlie, C., & Yu, F. (2007). Mixed methods sampling: A typology with examples. *Journal of Mixed Methods Research*,1(77), 77-100.
- Uzunboylu, H., Ekizoğlu, N. & Ekizoğlu, A. (2009). Eğitim teknolojileri merkezlerinin işlevlerine ilişkin eğitimcilerin görüşleri. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, *37*, 159-173.
- Vi, V., T. (2005). Advantages and disadvantages of using computer network technology in language teaching. *Journal of Science, Foreign Languages*, 61-66.
- Zhao, Y. (2003). Recent developments in technology and language learning: A literature review and metaanalysis. *CALICO Journal*, 21(1), 7-27.