Available online at:
https://dergipark.org.tr/eltrj/
International Association of Research in Foreign Language Education and Applied Linguistics
ELT Research Journal
2020, 9(2), 194-218
e- ISSN: 2146-9814

On-Site Technology Use in Language Classrooms through the Eyes of the Pre-service Teachers: A qualitative study[i]

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Received: 04/11/2020 Accepted: 07/12/2020

To cite: Aşık, A. & Kuru-Gönen, S. İ. (2020). On-site technology use in language classrooms through the eyes of the pre-service teachers: A qualitative study. *ELT Research Journal, 9(2),* 194-218.

Abstract

In foreign language (FL) learning, albeit technology is widely used, it is still discussed what language teachers experience when they are employing existing technologies for effective language learning practices. For technology-enhanced language classrooms, the first step would be to determine the needs and possible challenges of technology integration into actual classroom mediums. With regard to this motive, this study aims to investigate the on-site classroom practices of technology use for language teaching through the eyes of the pre-service teachers (PSTs) at a practicum school context. A total of 22 PSTs was required to observe and reflect on the teaching practices of cooperating teachers (CTs) at a high school related to the integration of technology in FL teaching. Data were collected qualitatively via reflection reports and semi-structured interviews along with observation and field notes on technology use, current practices in implementing technology in classes, and PSTs' own views about technology use with specific examples. The results yielded that PSTs reflected their observations often on the use of interactive whiteboards (IWBs) as accessible technology in the school context. However, they underlined the ineffective use of these devices and CTs' lack of awareness in implementing technology so as to enrich learning opportunities. Findings indicate fruitful implications for language teachers and teacher educators to integrate technology into language teacher education (LTE) and language classrooms.

Key Words: Language teacher education, technology integration, IWBs, educational technology

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Introduction

With the growing interest in technology use in education, it has been acknowledged that teachers of today need to think critically and practice a new pedagogy in the new digital era of constant technological challenges (Beetham & Sharpe, 2013). Especially in the recent diverse, mobile, unequal, and globalized world, it is of crucial importance to identify the needs of language teachers to help them adapt to technological advancements and use the available digital resources at optimum level to enhance proficiency in teaching performance (Johnson & Golombek, 2020). Even though most learners and teachers utilize technology in their daily lives, integrating technology into teaching may not be achieved automatically by transferring the necessary skills and social practices (Winke & Goertler, 2008). Hence, there is still a mismatch between the existing digital resources available and the actual on-site uses by teachers and learners. With this regard, teachers play a pivotal role to eliminate this mismatch in language classrooms.

The main underlying reasons for this 'mismatch' can be listed as the lack of knowledge and decision making on the best practices of technology employment in language teaching (Farr & Murray, 2016; Kennedy et al., 2010), and the presence of language teachers who graduate with little or no knowledge of how to use technology in language teaching (Aydın, 2013; Egbert & Thomas, 2001; Hubbard, 2008; Kessler, 2016). Furthermore, lack of training opportunities for technology education (Li & Ni, 2011) leaves teachers on their own which may lead to further frustration (Kuru Gönen, 2019). It is, then, obvious that language teachers need guidance in selecting and adapting to the latest technologies with necessary knowledge and skills (Kessler & Hubbard, 2017).

In order to meet the demands of the digital era, several initiatives were launched to provide a comprehensive framework for technology use for language teaching contexts in particular. As being one of these initiatives, TESOL Technology Standards, the most comprehensive framework designed for the unique needs of language teaching contexts, included a set of guidelines to specify the necessary technological competence of language teachers and learners (Healey et al., 2008). To meet the necessary standards, it is substantial for teachers primarily to explore the existing technologies in their teaching contexts, check their availability, analyze their options to integrate technology and integrate one technology at a time for effectiveness instead of trying to employ various new technological tools at once (Son, 2018). It is in a similar vein to what Bax (2011) underlined as conducting 'needs audit' first which refers to teachers' questioning and evaluating technological tools they have in their teaching contexts rather than pacing the floor hastily to integrate any recent technology.

A preliminary requirement in the successful integration of technology into the language classroom is having positive perceptions and attitudes towards technology and awareness regarding its benefits to language teaching (Al-Jarrah, Talafhah, & Al-Jarrah, 2019; Merç, 2015). In both in-service and pre-service teaching contexts, language teachers by a majority adopt positive attitudes towards operating technology to foster interaction and collaboration, promote visual stimulus, and create effective learning activities albeit the differences in teaching models applied in their teaching contexts (Aydın, 2013; Mei, Brown, & Teo, 2018, Meyer, 2015). However, language teachers generally lack the necessary mental and technical skills to use the technology at hand in their classrooms (Lozano & Izquierdo, 2019), and how to train teachers effectively to help them integrate technology in their own teaching contexts is still nebulous (Aydın, 2017).

In a language classroom, reasons for drawbacks in technology use can be attributed to some restrictions in budgeting, additional planning time required, limited classroom time, and most importantly lack of training (Godwin-Jones, 2015). Although in-service teachers believe technological innovations in the language classroom foster motivation and engagement in language learning, they may still have some concerns in classroom management, lack of knowledge, pedagogical practices, and technical support while integrating technology into their language teaching and learning environment (Al-Jarrah et al., 2019). Teachers may not even know how to identify available technological tools such as software and hardware and may not have a strong preference and solid rationale in selecting what technology to incorporate into lessons (Ibouhouten, 2018). Such hesitation may hinder the use of available technological resources in an effective way for language teaching (Lee, 2019). Recently, it has been revealed that in-service EFL teachers lack confidence in integrating digital technologies due to the heavy load of teaching hours, limited technology proficiency, and student's low proficiency levels (Weerakanto, 2019). As a result, it is quite essential to explore in-class activities of teachers to alleviate potential hindrances of successful prevalent technology implementation.

Regarding the pre-service LTE, prospective teachers may hold varying perceptions towards technology integration due to the availability of technology in their teaching contexts, personal and culture related experiences, and their cognitive insight (Chaklikova & Karabayeva, 2015). It has been discovered that there is a lack of authentic tasks where PSTs can manage and practice technology-enhanced concrete activities (Tondeur et al., 2012). Despite the expectations in terms of using technology in the language classroom proficiently, PSTs may still fall behind these expectations (Gill, Dalgamo, & Carlson, 2015). To overcome this, Aşık et al. (2019) indicated that the LTE programs need to offer more opportunities with

the aim of developing particular strategies such as role modeling, reflection, authentic experiences, feedback, and instructional design to employ information communication technologies (ICT). Likewise, Hsu (2016) pinpointed the need to offer training opportunities to optimize the effectiveness of using ICTs in accordance with curricular goals. In a pre-service LTE context, Batane and Ngwako (2017) attained that even though the majority of the prospective teachers supported the use of technology, reported to have the necessary skills, and believed in its effectiveness, they were not aware of the existing available resources in the classrooms and they were hesitant to use technology after all. As a result, identifying how teachers perceive technology use in their teaching contexts, and investigating current practices regarding the implementation of technology into language teaching would illuminate the ways to provide effective training to both in-service and pre-service teachers in accordance with their needs. Based on this idea, this study aims at understanding technology use in actual teaching contexts based on on-site observations and reflections of prospective teachers and finding out the rationale behind the use of existing technologies in language classrooms.

Technology in Foreign Language Classrooms

Recent advancements in ICTs and the Internet tools provide academic and social development opportunities for both learners and teachers via new assessment models, collaboration mediums, visual stimulants, and learning activities (Meyer, 2015). Rapid and increasing developments in technology have paved the way for its use in language classrooms, as well. Even though some learners are experience adversities whilst accessing to the Internet or various individual devices such as laptops, smartphones, or tablets (van Deursen & van Dijk, 2019), one of the most common ways and devices of technology use in language classrooms is the use of IWBs. This technology has been incorporated into classrooms for many years; however, how it is perceived by its hands-on users (i.e. teachers and learners) has not been explored fully with respect to technology integration in language teaching and learning.

IWBs in language teaching

IWB is a type of all-in-one technology which combines several instructional aids such as chalkboard, whiteboard, television, video, overhead projector, CD player, and computer (Yáñez & Coyle, 2011). The benefits of IWB use in language classrooms were listed by Schmid and Schimmack (2010) as follows:

> *a) facilitating the integration of new media in the regular language classroom, b) enhancing the scope of interactivity and learner engagement in the lesson, c)*

> *supporting the development of so-called "electronic literacies", and d) meeting the needs of students with diverse learning styles (aural, visual and kinesthetic) through the use of multiple media*. (p.198).

Moreover, IWB has additionally been found avail and effective as it enhances interaction and collaborative learning (Bettsworth, 2010), brings authenticity into the classroom (Stanley, 2014; Whyte, 2011), and facilitates comprehension of input and supports output production (Cutrim Schmid, 2008). IWBs also allow access to Internet resources and the ability to project videos and images, all of which improve language instruction in classrooms (Yang & Huang, 2008).

In terms of language learning and teaching, several studies ranging from elementary to higher education contexts revealed the potential of IWBs from the standpoint of fostering interactivity through meaningful language use (Cutrim Schmid & Schimmack, 2010), and enhancing multiple learning styles (Cutrim Schmid, 2008). Fang and Lee (2018) focused on exploring the effects of the IWB integrated approach on elementary students' achievement of and their attitudes towards their mother tongue, Taiwanese, when compared with traditional instruction without the use of any technology. Findings yielded an advantage on behalf of the IWB integrated approach group both on achievement scores and fostering positive attitudes towards their mother tongue. In a similar vein, Johnson et al. (2010) interviewed language teachers and their students and conducted classroom observation in order to reveal both teachers' and students' perspectives of what worked and what needed to be improved corresponding to the use of IWBs in a language classroom. It was specified that both teachers and students make personal transformations within the IWB context, and there is a need for collaborative work among teachers and more opportunities for teachers on how to use technology. Moreover, in a Korean EFL classroom, Hur and Suh (2012) examined effective ways of integrating IWB along with digital storytelling and podcasting to develop language skills. Results designated that when tools like podcasts and digital stories were embedded in IWBs, it was possible to create an active learning environment and diversify class activities to arouse curiosity and motivation.

Research on IWBs in general underscores the effectiveness of this tool on student learning, positive attitudes towards language use, and improvement in instructional skills. Despite various benefits, it has also been acknowledged that IWB use might induce some problems. The possible drawbacks of IWB use can be summarized as easy assimilation leading to patterns of replicating previous (traditional) practice (Cutrim Schmid, 2011; Whyte & Alexander 2014; Whyte, 2015), increase in teacher-centeredness (Gray, 2010), cognitive

overload (Cutrim Schmid, 2008), and lack of modification or creation of new content (Cutrim Schmid & van Hazebrouck 2010). In order to overcome these problems, Kennewell and Beauchamp (2007) denote that there is a need for a 'new wave of professional development in ICT which takes account of the extended list of ICT's features and the need to embed them in teachers' pedagogical knowledge and reasoning' (p.240). Hence, to meet this dual need for developing technical skills and pedagogical knowledge, teachers' attitude towards this technology in various EFL/ESL contexts needs to be investigated, and rather than treating them as visual screens that substitute blackboards, how influentially they can be instilled into language learning can be mapped (Whyte, Beauchamp, & Alexander, 2014).

IWBs in Turkish EFL classrooms

IWB technology is one of the available tools for most EFL teachers in Turkey recently as a result of an education reform movement. Since this study focuses on technology use in language classrooms at high schools in Turkey, we believe that it is a necessity to expound the Fatih Project, a comprehensive technology reformation at schools in Turkey. Due to the increased awareness and necessity of technology integration in education, in 2012, Turkey launched a project called FATİH which stands for 'Movement of Enhancing Opportunities and Improving Technology' in Turkish. The Fatih Project, run by the Ministry of National Education of Turkey (MoNE), aimed to provide five components for technology integration in education: a) providing equipment and software substructure, b) providing educational e-content and management of them, c) effective usage of the ICT in teaching programs, d) in-service training of the teachers e) conscious, reliable, manageable and measurable ICT usage. With these objectives in mind, at first, it was aimed that around 42.000 schools and 570.000 classes would be equipped with the latest information technologies such as IWBs with LCD panel, Internet network infrastructure, multifunction printers, and document camera (MoNE, 2012). Recently, around 432 thousand IWBs and 1 million 437 thousand tablet PCs have been delivered to the primary, secondary, and high schools and students across the country, according to the recent data retrieved from the official website of the project (http://fatihprojesi.meb.gov.tr/etahta.html).

With respect to the outcomes of this project, Öz (2014) investigated perceptions of high school EFL learners and their teachers on the use of IWBs in the language classrooms, and whether some variables such as gender, students' level of proficiency, teachers' year of experience make any difference on their perceptions of this available technological tool in the classroom. Findings, in general, indicated that both students and teachers perceive IWB as a tool to provide an enjoyable atmosphere for language learning and foster motivation regardless

of the variables under investigation. Even though perceptions of the participants were by a majority positive, it has been revealed that students and teachers need training on the effective use of IWB technology. Furthermore, due to the unavailability of appropriate e-materials for IWBs and problems in the integration of tablets, teachers lose interest and motivation in handling this available technology in EFL classrooms. It is highlighted that there is a need for investigating teachers' experiences with this tool to explore their capacity to comply with integrative skills in using IWBs. In a similar vein, focusing on the use of technology with Turkish EFL high school students, Han and Okatan (2016) observed IWB use in actual language classrooms and detected that IWB equipped lessons had a positive impact on concentration and in-class participation. This study underlined conducting more research to discover both teachers' and students' experiences and attitudes towards such technology to enhance EFL learning.

How effectively technology integration is initiated by the facilities of such nationwide projects mentioned above, and how other available technologies used in the actual Turkish EFL context are worth investigating in order to shed light on how and to what extent technology is used for language teaching purposes. In this way, it would be possible to determine possible challenges and needs to ameliorate both in-service and pre-service language teacher training in EFL contexts such as Turkey.

Aim and significance of the study

Although the literature on technology use and its affordances in ELT provides valuable insights, there is a dearth of studies which intend to explore actual on-site practices of technology use in language classrooms. Identifying the actual classroom practices of technology in language classrooms might offer considerable implications for in/pre-service English LTE.

Studies conducted in the Turkish education context yield that both pre- and in-service teachers cannot cope with the expected levels of technology integration (Akbulut, Odabaşı, & Kuzu, 2011; Yılmaz, 2007) in general. Some of the reasons for this adversity are explained in terms of technological illiteracy, lack of knowledge on the use of instructional technologies such as whiteboards and mobile devices (Tezci, 2011; Yavuz-Konokman, Yanpar-Yelken, & Sancar-Tokma, 2013). Previous research emphasizes a need to conduct studies in EFL classes to ascertain what language teachers experience in actual classroom settings in terms of implementing technology.

In order to provide more concrete suggestions and improved training on technology integration in language teaching and LTE programs, it is still needed to determine the existing challenges and possible opportunities for technology use in language teaching through critical observation. However, this investigation remains underexplored in the field. To this end, the current study was conducted to investigate the actual classroom practices of technology use for language teaching through PSTs' viewpoints. The study could be considered significant as it attempts to explore the reflections of the prospective teachers' observations after a six-week observation (longitudinal) period instead of a one-time observation slot. Another significance of the study is that the findings are based on the observations and field notes rather than self-reported perceptions and claims of CTs on their technology use. With this motivation in mind, the study was generated to seek answers to the following research question:

1. What are the perceptions of the PSTs in a Turkish EFL context on the actual classroom practices of technology use for language teaching?

Method

Research Context

The study was conducted at an ELT department of a state university in Turkey during a practicum course. ELT programs in Turkey last for four years at BA level and practicum takes place in the last year. The practicum period is held at the program with two courses: the 'School Experience' course in the first semester and the 'Teaching Experience' in the second semester. The PSTs are supposed to regularly attend practicum in primary or secondary schools, complete the observation tasks, prepare lesson plans, and practice teaching. The study was conducted in the first semester with the medium of the course called 'School Experience', which requires PSTs' participation in the lessons of the CT four hours a week for observation and task completion (observation and reflection) and under the supervision of their supervisor at the university.

Participants

A total of 22 PSTs (19 females, 3 males) participated in the study. The PSTs who participated in this study practiced their internship at two different state high schools in Ankara, Turkey. They were identified according to the non-probability convenience sampling method suggested by Creswell (2005) since all of them were available and volunteered at the time of the study. The PSTs signed consent forms that guaranteed the confidentiality of their participation. As for the requirement of the course called "School Experience" of the first term

of the fourth grade, the PSTs were required to complete an observation task assigned by their supervisor each week and submit it to their teacher trainer at the university. The observation tasks encapsulated reflections concerning classroom management, assessment, methodology, language teaching materials, classroom interaction, technology use, and so on. Based on these observations reports and reflections, weekly sessions with their teacher trainer at the university were held to discuss and elaborate on these topics.

Data Collection

The data were collected qualitatively through reflection reports written by the PSTs based on their observation and field notes as for the requirement of a task assigned within the course called "School Experience" in 2018-2019 academic year Fall Term. The PSTs were required to write a detailed reflection report according to the following guideline:

> *Please write a report about technology use at the practicum school. Give detailed information about your observations and comments about the technological devices and their use at school. Discuss how cooperating teachers (CTs) use technology in/out of the classroom, for which general and language teaching purposes CTs use technology. Please also state your own reflection and opinion about technology use and support your reflection and argumentation with specific examples from actual practices*.

The task was assigned to the PSTs in the sixth week of their first practicum period. The participants were informed that there were no right or wrong answers to the questions. They were asked for objective observation and their own reflection and opinions on technology use in the practicum school. They wrote their reflections in English. Since they were senior ELT students and the tasks were one of the requirements of the course, English was utilized as the language of the reports.

Data Analysis

The study adopted a qualitative analysis approach. Research findings were based on the ideals of qualitative analysis for the 'Grounded Theory', which allows interaction with the data and for ideas about it to emerge through continuous comparisons (Smith, 2008). In the current study, the Constant Comparison Method (CCM) was implemented to analyze participants' reflection reports. CCM method allows for sorting, coding, and connecting pieces of data according to emerging patterns and themes rather than predetermined sets of categories (Leong, Joseph, and Boulay 2010). Following the principles of the CCM, first of all, communication units (any idea, thought, or feeling associated with the purposes of the study) that reflected participants' observations and opinions on technology use in language classrooms were

identified. Then, similar communication units were constantly compared and contrasted until they were formed into sub-themes. In the final step, the main themes were formed from the identified sub-themes. Thus, all categories emerged from the existing data to present STs' reflections and opinions with respect to technology use. For the effective presentation of the data, communication units were quantified according to their frequency. Furthermore, sample extracts from reflection reports were given to exemplify the categories that emerged and to present a more in-depth discussion. Corresponding to the reliability of the qualitative analysis, two separate raters who are experienced in the CCM method analyzed the data by sorting, delineating, and identifying the categories. The formula for inter-rater reliability (the number of agreements/the number of agreements (x) the number of disagreements multiplied by 100) suggested by Tawney and Gast (1984) was used, and it was found was .91, which showed a high degree of reliability indicating that raters reached a consensus on the coding and categorization of data (Gwet, 2014).

Results

Qualitative data collected through reflection reports were analyzed through constant and comparison methodology of emerging communication units. Subsequent to this phase, the data were quantified and tabulated via descriptive statistics by using the number of communication units and percentages. The numbers of the codes and exploratory statements are presented below. Furthermore, in order to illustrate the results with concrete examples, a number of quotations and explanatory statements from reports of the PSTs are also presented.

The qualitative data analysis resulted in a sum of 208 codes including three main themes and 14 sub-themes, all of which were tabulated below. Regarding the main themes emerged from the analysis, the PSTs' reflections mostly focused on three common themes related to the technology used at the practicum school: a) IWB use in the language classroom, b) technology for teaching English, and c) technology use in the school context, as shown in Table 1 below.

Table 1. *Main themes on classroom practices of technology use in the practicum context*

Main Themes	**N***
IWB Use in the Language Classroom	74
Technology for EFL	68
Technology Use in the School Context	66

	208
TOTAL	

N*: Number of communication units

The findings above revealed that PSTs attributed IWB as the main source of technology in the classroom. The theme "IWB use" was categorized as a separate theme since a considerable number of the reflection reports of the PSTs embraced several references to IWB use which constituted the main technological tool available. When these mentions focusing on IWB were analyzed, several sub-themes emerged in connection to the distinct types of IWB use by both the CTs and language students, all of which are presented in Table 2 with explanatory statements.

Table 2. *Sub-themes related to IWB use in the language classroom*

IWB use in the Language Classroom	**Explanatory Statements**	**N***
IWBs are used …		
to show the content of the coursebook	*They (IWBs) are used to display part of the coursebook, give and check coursebook activities*	28
by teachers ineffectively	*Teachers are not aware of how to use them effectively*	28
by students for presentations	*Ss use them mainly for ppt presentations*	10
for various purposes other than language teaching	*They (IWBs) are used merely as a projector, computer*	8
		74
	TOTAL	

N*: Number of communication units

As it is clear from Table 2, the results indicate that IWBs are mostly used to *display the English coursebook* such as projecting the relevant activity, the text, and the content of the unit. Pertaining to this advantage of IWB use, one PST explains how IWB facilitate material management in the classroom in the following extract:

> "*I think it is so advantageous for those who forget to bring their own books. They can easily follow the lesson with the help of the smartboard. The teacher doesn't have another device for the listening activities. Smartboard enables her to do everything. It has a sound system. The teacher can open the listening tracks and students listen to them. It is so practical. Because the smartboard has everything in it, there is no need of using any other technological device in the classroom."* (PST5)

Another significant result was related to the comments of the PSTs on the *inefficient use of IWB by their CTs*. It was attained that the in-service language teachers in the practicum context could not employ IWB for several teaching purposes other than the display of the coursebook content. The lack of necessary knowledge and competence of technology use of the CTs is also supported by other sub-themes which are discussed below. For example, in the following excerpt, one PST illustrates how the language teachers struggle with the smartboard:

> "*For example, the teacher did not know how to use the smartboard effectively. The teacher generally got help from students, which caused a waste of time. In addition, the teacher had to stand in front of the board during the lesson that is why; she was not effective with classroom management."* (PST20)

Furthermore, IWB is also *used by the students for their presentations in the classrooms*. The reflection reports indicate that the students are eager to apply IWB in the classroom as a medium for the requirements of the course (i.e. to show a website and a link, prepare ppt presentations). Another type of IWB use reported is the use of smartboards as basic technology devices such as a projector or a computer. That is, IWB is rather considered as a kind of screen which provides visual stimulus available to all students. The PSTs discuss this limited use of

IWB in relation to language teaching purposes, which are also illustrated in the following sub-themes.

The second main theme, 'Technology for EFL' comprises several sub-themes on the perceptions of the PSTs towards technology use for EFL contexts. As remarked in Table 3 below, the perceptions are particularly positive. Thus, the findings reveal that PSTs support the idea that technology promotes language learning by facilitating the process and provides an effective medium of instruction.

Table 3. *Sub-themes related to technology for EFL*

Technology for EFL	**Explanatory Statements**	**N***
Technology promotes language learning	*Technology facilitates the language learning process and helps to learn more effectively*	16
Teachers should integrate technology into language learning	*They should use technology not only in the class but out of class as well*	16
Teenagers are enthusiastic about technology use	*They are prone to connect with others via social networking, emailing, etc. technology provides authentic materials and resources*	14
Teenagers benefit much from technology	*They can make connections via technology in learning FL*	12
Teachers need technology training	*Teachers lack the necessary knowledge and practice on integrating technology into FL*	10
	TOTAL	**68**

N*: Number of communication units

As can be distinguished in Table 3, PSTs clearly are aware that *technology use in the school context promotes language learning* as it provides influential learning opportunities with quick access to language materials, multimodality (visual, auditory, and kinesthetic features), and practice chances. PSTs also reported that *teachers need to integrate technology for language learning purposes*. It has been found that teachers use technology in a limited way. Since the available technology-IWBs- are rather considered as mere projector-like devices, EFL teachers avoid operating them for enhancing learning opportunities for language teaching. However, it is emphasized that the high school students, who are *teenagers* in the study, are enthusiastic about technology use and *can benefit much from technology* for language learning. That is, these learners are familiar with technology in their personal lives and can adapt to employing it for language learning. Another observation of the PSTs was the lack of technology knowledge of the teachers, which can be asserted as one of the main challenges why technology integration into language teaching cannot be done. Hence, findings indicated that *teachers need training* in order to integrate technology effectively. In relation to these argumentations, the following excerpts indicate the suggestions and opinions of the PSTs for more effective and improved use of technology:

> *"The smartboard can be used in other ways. There are so many applications that help students to learn and practice English (such as Kahoot). With the help of these apps, students become more active by playing online games. I hope to see that the smartboard is used for different purposes through different applications in the future lessons." (PST5)*

> *"It is now a technological era so there are lots of applications and so on in terms of teaching and teaching-learning a foreign language. I can give Kahoot, Powtoon, Edmodo, Socrative, etc. as some examples and I must say these are quite useful materials when it comes using in the lesson. That's why maybe they could use these sites and other sites while teaching English." (PST13)*

> *"Teacher as far as I observed do not use the application Kahoot, Socrative, Edmodo, or Prezi. I think adopting these applications to the lessons would enhance learning and students would be more enthusiastic to learn. I hope that I will apply technology to my future classes." (PST11)*

The extracts above clearly designate that the PSTs are familiar with the latest common Web 2.0 tools which can be used for language teaching purposes since they had the training during their pre-service teacher education program. The limited use of IWB (to display the coursebook content or as an audio and projection device) is criticized by the PSTs since IWBs have several affordances for a more motivating, interesting, creative medium of instruction. As a result, the PSTs were aware that technology is not completely inserted into language learning in the school context.

The final main theme is 'Technology Use in the School Context' in general. Table 4 below displays that although technology is not effectively used for enhancing teaching and learning in general, technological devices are accessible, available, and commonly used in the school for various purposes. This finding is to be explained with the Fatih project launched in Turkey at the national level (the details of the project were explained earlier).

Table 4. *Sub-themes related to technology use in the school context in general*

Technology Use in the School Context	**Explanatory Statements**	**N***
In general…		
various technological devices are used for educational and managerial purposes	*Computers are used to fulfill institutional duties, design visual materials; smartboards; photocopy machines for multiple handouts*	24
students at school are technologically adept and expert	*Students are comfortable, professional, they deal with and fix technological problems*	20
technology is widely used in the school context	*In every class via various devices with an internet connection*	14

the school uses technology to ease Ss' learning process	*Technology facilitates some tasks*	4
technology use is ineffective at the school	*It is not used effectively for learning*	4
	TOTAL	**66**

N*: Number of communication units

Table 4 displays that devices such as computers are *used for practical purposes to fulfill duties* like tracking student absence, filling out daily managerial forms, and writing lesson plans. Furthermore, another observation stated by the PSTs is that *the students are competent in technology*. The students can fix the problems with the IWBs or any other equipment. It has been commonly indicated that the students are more tech-savvy than their teachers. In classrooms, when there is a problem with IWBs, the teachers generally ask for help from the students. The following extracts exemplify such a similar situation:

> *"The teacher just clicks on and plays the listening track. As far as I have observed this far, the teacher is not so good at dealing with technology. However, she tries her best. She just needs help sometimes. For instance, she asks for help from the students inside the classroom, and from us outside the classroom." (PST3)*

> *"As a specific example, I can talk about a student who had a presentation. She was very good at using the board. She made a presentation and also, she prepared a video about it. However, the teachers on the other hand are not very good at using these machines. They should get more education about using smart boards in classes in an effective way." (PST19)*

Moreover, the PSTs mostly reported that in each classroom there is a student (kind of a 'tech guy') who is responsible for the problems encountered with the IWBs on a voluntary basis. However, it has also been stated that the time allocated to IWB device problems was sometimes too much that classroom time was to be wasted. *Classrooms are wired with technological devices* (e.g. projectors, IWBs, audio tools) and Internet connection is available

even though it is of limited use due to some institutional restrictions at state schools such as unavailability to connect worldwide sites like YouTube. In this respect, PSTs observed that albeit many problems, *the school uses technology to ease learning* and that it is possible to facilitate some tasks (i.e. listening tasks, language games, tasks that are based on visual input). Finally, some of the PSTs noticed that *technology use in general in the school context is ineffective* as available tools are not performed effectively by the teachers and learners. All in all, in the high school EFL context, integration of technology is not compatible with recent advancements in the use of educational technology, and there is an obvious need for creating more opportunities to learn by focusing on the findings of the study which are discussed in the following section.

Discussion

The findings indicate that technology is used for various purposes in the Turkish EFL high school context, schools are tech-friendly, equipped with accessible technology, and that the IWBs are the main technological devices in the language classrooms. However, IWBs are frequently used for coursebook content display including mostly listening activities, videos, visuals, and checking answers. In this respect, IWBs are considered merely as screen regardless of their potential for enhancing language learning. It is revealed that more interactive uses of IWBs (such as online games, useful language learning resources and webpages, creative language practices) are not known and practiced by the teachers. In this regard, Dudeney and Hockly (2016) specify that the effect of technology can be recognized when it is used for making the language task more effective or engaging for learners. The findings of the current study are in correspondence with Cutrim Schmid and van Hazebrouck (2010) which additionally discuss the superficial interactivity of IWB-based activities that lead 'patterns of technology use in which students interact with the IWB mainly to reveal answers embedded in the electronic files or to move pictures or text boxes across the screen without modification or creation of new content' (p.127). In this sense, it has been criticized that teachers use IWBs by just replicating their traditional practices (Cutrim Schmid, 2016). However, it has been spotted by Han and Okatan (2016) that IWB equipped lessons had positive influence on more concentrated and increased participation.

Even though the PSTs asserted that the use of IWBs makes lessons more engaging and motivating in the high school context of the current study, they cannot be applied for the provision of effective language learning opportunities. This can stem from the idea that may

not find appropriate grounds in integrating existing technology to create meaningful lessons due to time constraints or the perceived necessities although they have positive attitudes towards technology in the language classroom (Dalton, 2012; Hutchison & Reinking, 2011). Öz (2014) relates the ineffective use of IWBs in Turkish EFL contexts to lack of technical support at state schools which causes further ambiguity in deciding on how best to employ these tools. What is more, lack of materials tailored to the features of IWBs can be one of the reasons for teachers' inability to use existing technologies in their classrooms to redound language learning. In order to solve this problem, teachers can purport to critical thinking skills to adapt their materials to existing technologies, use cooperative learning ideas, and employ learning strategies in order to benefit more from IWBs (Miller & Glover, 2009).

Since the results depict that teachers (CTs) are not aware of potential uses of IWBs or technology in general, the PSTs reported the need for technology training for more creative, effective, and interactive uses of IWBs. English in-service teachers need to go through a process of technology development that goes beyond the familiarization with IWB presentation tools (Cutrim Schmid, 2012; Cutrim Schmid & Whyte, 2015). For example, combining IWBs with other interactive technologies such as collaborative videoconferencing software and learner response systems (Cardoso, 2011; Cutrim Schmid & Whyte, 2014) can create opportunities for successful technology integration into the classroom context. Therefore, IWBs need to be used in a more learner-centered way in the FL by means of constructivist practices (Cutrim Schmid, 2016). Even though teachers generally have basic ICT skills, findings clearly call for an urgent initiation for providing training opportunities for language teachers. Additional technological training is assumed to foster teacher confidence in integrating technology into their teaching (Hutchison & Reinking, 2011). Likewise, Johnson et al. (2015) assert that teachers should participate in professional development programs and seek assistance in technological practices before they design innovative learning activities. In this way, teachers can meet the digital literacy requirements and the necessary pedagogical knowledge to guide students in this digital era (Weerakanto, 2019). When teachers lack the necessary knowledge and experience and are now aware of how to use available technological devices such as the IWBs, it is of no use for any class to be equipped with the latest technologies (Çoklar & Tercan, 2014).

Another result related to technology use is students' enthusiasm and creativity to use technology more than their teachers. PSTs reported that English teachers often ask help from students when they need to used technology. It is noticeable that students are more capable of and comfortable in utilizing technological devices such as the IWBs. It is in accordance with

the view that teachers can learn integrating new technologies from their hands-on practices or from their students who are technological experts (Dudeney et al., 2013). The new generation can easily adapt to recent technological advancements as they are considered as digital natives who are grown up with the necessary digital skills to survive in a digital world (Prensky, 2001). However, using technology in daily life for various purposes and using it to enhance learning are two different things. This leads us to reconsider the misleading idea that any technology will by and of itself automatically lead to 'better' learning (Hockly, 2013). In this respect, students may need tech-savvy teachers who can enrich learning environments with effective implementation of technology. As a result, in addition to students' use of technological skills, teachers need to achieve an understanding of using technology for the sake of promoting language learning rather than using it for its own sake.

The results of the study also indicated that all PSTs have positive perceptions of technology use in language classrooms. They find it encouraging, motivating for students, and they reflected that in the future they aim at using technology more effectively. PSTs are willing to use technology more influentially in the future. When PSTs were guided to observe and reflect on how technology is used in the practicum context, they had a chance to notice how technology is applied in the school context, the importance of effective implementation of technology, and teachers' lack of necessary skills and practices to this end. PSTs realized that having access to technology does not ensure teachers' using it meaningfully and purposefully in their teaching practices (Navaridas, Santiago & Tourón, 2013; Ryan & Joong, 2005). In addition to informing prospective teachers on the use of technology in foreign language education, how well they accept, and how ready they are to use this technology are crucial for successful technology integration. Thus, this study can also be considered as an initial step in creating awareness for PSTs in exploring actual teaching practices at state schools in terms of technology integration. When they focus on both effective and ineffective practices, they can notice the gap in their own knowledge and practice, which may in turn help them seek ways for upgrading themselves professionally to enhance learning and teaching via technology.

Conclusion and Implications

This study aimed at inspecting the use of technology in FL classes at a high school context in Turkey from the viewpoints of prospective teachers who observe and reflect on language lessons as part of a practicum course. PSTs in the study noticed many discrepancies related to the availability of technological devices at schools and their successful integration into language study. The results of the study mainly indicate a call for training for teachers to integrate technology in a more creative and compelling way to foster motivation, promote

language skills, and provide opportunities for language practice. The findings of the current study once again confirmed that in addition to the use of recent technology in the classroom, it is substantial for teachers to implement technology in a sound and pedagogically efficient way to create more learning opportunities for language learners (Lozano & Izquierdo, 2019).

Based on the urgent need for technology training for both pre- and in-service teachers, one implication of this study could be to design workshops, seminars, certificate programs (both online and face to face) that would provide opportunities for hands-on practices of effective technology integration. Hutchison and Reinking (2011) also call for support from administrators and policymakers in providing professional development workshops for teachers. Best practices, useful applications, and technology implementation models can be presented to teachers in order to create awareness of using technology with the aim of enriching language teaching practices and motivate them. Additionally, teachers may form communities of practices (CoPs) to collaboratively work on mastering necessary ICT skills and motivational support to have inspiration for engaging practices (Hanson-Smith, 2016). As revealed in the current study, assistance and opportunities may assist teachers to use technology in a balanced way to augment existing practices, design and evaluate resources for available technologies such as the IWBs, and manage interaction with these devices.

Another implication of the study would be to involve PSTs more in the practices of technology use at the practicum schools. Prospective teachers are part of the new generation who are engaged in technology more often than the CTs, and their reflections revealed that they seek alternative ways to incorporate technology into their lessons. As a suggestion, training models like Reverse Mentoring Model suggested by Aydın (2017) may help both pre- and in-service teachers to gain techno-pedagogical knowledge. By restructuring the teaching practice process, pre-service teachers who are more equipped with technological knowledge will mentor their in-service teachers creating an environment in which both groups of teachers will be learning from each other. This reverse model may create a win-win atmosphere in which prospective teachers act as a catalyst to ease the integration process of technology into language learning and in-service teachers guide them with their teaching experience whenever necessary. Teacher educators may benefit from such experience to arrange technology courses at universities and new LTE courses can be implemented

This study additionally has some limitations that it is mainly based on observations and reflections of a limited number of PSTs at two high school contexts. Further studies can be conducted with more PSTs and CTs at other EFL contexts, and longitudinal studies employing discrete data collection tools such as questionnaires on eliciting their attitudes and motivation

towards technology and investigating the effects of using various tools in FL learning may offer valuable insight into technology and LTE. All in all, this study provides insight into on-site applications of educational technology in FL learning/teaching and echoes popular remark that technology will be a great transformational tool in the hands of great teachers rather than replacing them (Couros, 2015).

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[i] Preliminary results of this study were presented at Ninth International Conference: Voices of Creativity and Reason in ELT, Ústí nad Labem, Czechia, 17-18 October 2019.