

## TABLET PCS AS INSTRUCTIONAL TOOLS IN ENGLISH AS A FOREIGN LANGUAGE EDUCATION

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### ABSTRACT

The main goal of the study presented in this paper was to investigate the perceptions of 40 pre-service English as a Foreign Language (EFL) teachers about the effectiveness of Tablet PCs as instructional tools in EFL classes. The study was conducted at a state university in Turkey and the data collection was mainly done via two questionnaires. Quantitative data analysis done on participants' responses revealed that the majority of pre-service ELF teachers regarded Tablet PCs as effective instructional tools in teaching most of the subcomponents of English. The paper discusses the results in detail with implications and suggestions for educators.

### INTRODUCTION

Use of Tablet PCs in our daily lives is becoming more common each day; however, use of Tablet PCs as instructional tools in different fields of education is relatively at its infancy stage. This is partly due to the lack of receiving formal training on the part of the teachers and partly due to lack of funding in most institutions. There are also educators who are doubtful about the use of Tablet PCs as they are generally considered as new instructional tools and not much research is done on their effectiveness in education. A limited number of studies done on the effectiveness of Tablet PCs in instruction showed that Tablet PCs are useful in providing a more flexible way of presentation to the instructors with the options of editing and revision instantly (Xiang, et. al., 2009), in freeing students from physical barriers in assessment (Siozos, et.al, 2009), and facilitating collectively discourse capabilities (Alvarez, Brown, and Nussbaum, 2011).

In addition, there are also other benefits of Tablet PCs in education due to their mobile nature. Like any other mobile device, Tablet PCs provide learning on the go and free of time/space. Bulun, Gülnar ve Güran (2004) suggest that with the help of mobile learning, lifelong, peripheral, and adaptive as well as contextual learning is possible. In order to utilize the benefits of Tablet PCs in instruction, there is a need to do more research on the effectiveness of these tools, especially in different areas of discipline.

In this study, English as a Foreign Language (EFL) discipline was selected to be investigated in relation to the effectiveness of Tablet PCs because language learning and language teacher education are multidisciplinary fields of study that need versatile tools of technological instructional tools such as Tablet PCs. Moreover, as a part of FATİH project initiated in Turkey, students in K-12 are expected to receive individual Tablet PCs in a couple of years. However, the majority of the teachers who will be teaching these students do not have formal training courses in their undergraduate programs and go into teaching without any kind of teaching experience with Tablet PCs. As Ertmer, et al. (2012) pointed out "the most cited reason for lack of implementation of new technology is lack of professional development" (p. 425). Thus, if Tablet PCs are to be used as instructional tools in schools, prospective EFL teachers as well as teachers of other disciplines need training in using Tablets and the opportunity to evaluate the effectiveness of Tablet PCs in education.

On the other hand, the number of studies done to investigate the effectiveness of Tablet PCs in education is scarce. The number of studies done to investigate the effectiveness of Tablet PCs in relation to EFL by taking prospective teachers' perceptions into account is almost non-existent. Even though there has been a growing interest in MALL (Mobile Assisted Language Learning) as defined by Wang and Heffernan (2009), the number of studies done in this area is not increasing as fast as the technological developments. To keep up and even surpass and shape the technological developments, educators and researchers need to do more research to understand the nature of the coexistence of technology and pedagogy.

Therefore, the main purpose of the study presented here was to find out the perceptions of 40 volunteer prospective EFL teachers on the effectiveness of the use of Tablet PCs in relation to EFL. The main research question asked in the study was:

*What are the perceptions of EFL pre-service teachers' on the effectiveness of the use of Tablet PCs as instructional tools in teaching components of English*

*a) before they use Tablet PCs in relation to EFL teaching/learning?*

*b) after before they use Tablet PCs in relation to EFL teaching/learning?*

The rest of the paper gives details on the methodology used in the study, the results of the study, and the discussions sections with implications and suggestions for further research for educators, researchers, or other individuals who wish to maximize the use of Tablet PCs as instructional tools especially in the EFL context.

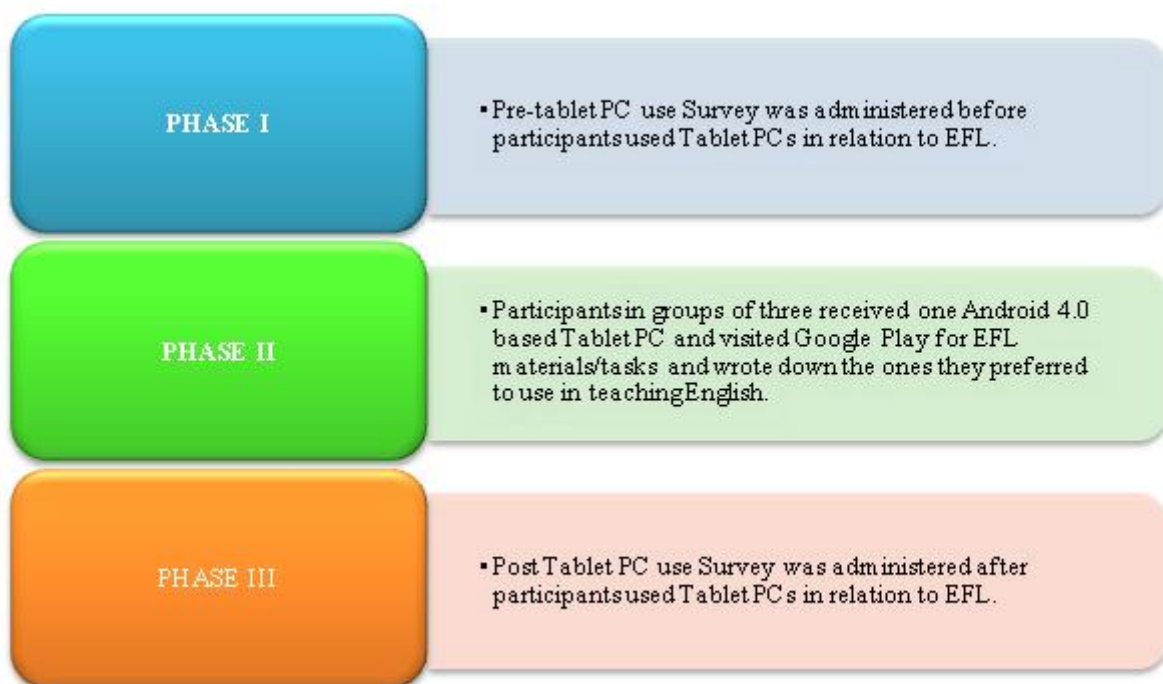
## METHODOLOGY

### Participants

The participants of the study were 40 prospective EFL teachers who were sophomores in a state university in Turkey. All were enrolled in an EFL B.A. program at a Foreign Language Education Department in which the medium of instruction was English. All participants were given consent forms before the study began and only the volunteer participants took part in the study. Nine out of 40 participants were males whereas the rest (31) were females. The average age of the participants was 20. In addition, all participants were in a methodology course in which they were being trained on how to teach speaking, listening, and vocabulary in English.

### Data collection and analysis

The data collection took place in one full academic semester in three phases and mainly via two surveys. Figure 1 below summarizes the data collection process of the study:



**Figure 1.** Data collection process

*Phase I, Pre-tablet use Survey (Survey A):* This survey done at the beginning of the semester included questions to collect data on the participants' perceived basic technological competencies, background in using Tablet PCs, and general attitude toward the use of Tablet PCs in EFL. In addition, the survey included items with four point Likert scale (Strongly Agree, Agree, Disagree, Strongly Disagree) to gather data on the initial perceptions of the participants before they used Tablet PCs in integration with EFL teaching and learning. In these items, participants were asked to evaluate the effectiveness of Tablet PCs in teaching the subcomponents of English language. Total six subcomponents of English were listed to gather data: "Tablet PCs are effective in teaching...  
 grammar in EFL.  
 vocabulary in EFL.  
 listening in EFL.  
 speaking in EFL.  
 reading in EFL.  
 writing in EFL."

*Phase II, Tablet PC use in relation to EFL:* After the volunteer participants were identified and the pre-tablet use survey was administered, participants were put into groups of three and in pairs. Grouping the participants was done due to the limited number of Tablet PCs. Each group and pair received one Android 4.0 based Tablet PC

with a wireless connection to the Internet. Then, all participants received a three hour technical training session on how to use Tablet PCs and navigate in Google Play. In order to provide participants the experience of using Tablet PCs in relation to EFL, participants were asked to visit Google Play and search for free and open access EFL materials/tasks. At the end of their group work, all groups submitted a list of EFL materials/tasks that they wish to use in teaching English via Tablet PCs.

*Post Tablet use Survey (Survey B):* After participants had experience in using Tablet PCs in relation to EFL, Post Tablet use Survey was administered. The main aim of carrying out this survey was to gather data on participants’ general attitudes toward the use of Tablet PCs in EFL and perceptions on the effectiveness of Tablet PCs in teaching the subcomponents of English after the participants’ experience with Tablet PCs. The same set of English components was used to gather data to investigate whether there was a change in participants’ attitude and perceptions.

All phases of the data collection process took place in English and in the classroom environment. Data analysis was carried out via quantitative means. Descriptive analysis with frequencies and percentages was done to analyze the responses of the participants in both surveys.

**RESULTS**

In this section, the results of the study are reported under three main headings. Under the first heading, the results of the data analysis done on the questions asked in the pre-tablet use survey to gather demographic data and participants’ perceptions on their technological competencies are given. Under the second one, data analysis results done on the participants’ general attitude toward to use of Tablet PCs in EFL are reported. Finally in the third one, the data analysis done to provide the answer to the research question of the study is presented.

**Participants’ perceived technological competencies**

Data analysis done on the participants’ responses in the Pre-tablet use Survey (Survey A) on the participants’ perceived technological competencies, which is reported in Table 1, revealed that a majority of the participants’ (87.5%) believed they had “Intermediate” level of skills as a computer user. In addition, more than half of the participants (60%) believed that they were again at “Intermediate” level in terms of their skills as Internet users. The majority of the participants (70%) were also considered themselves at “Intermediate” level in describing their skills as prospective teachers that can integrate technology into EFL learning.

**Table 1:** Participants’ self-evaluations on their basic technological competencies

<i>Questions</i>	<i>Novice</i>		<i>Intermediate</i>		<i>Advanced</i>	
	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>
1 How would you describe your skills as a computer user?	2	5	35	87.5	3	7.5
2 How would you describe your skills as an Internet user?	1	2.5	24	60	15	37.5
3 How would you describe your skills as prospective teacher that can integrate technology into EFL learning?	10	25	28	70	2	5

Participants’ perceptions on their own technological competencies in Table 1 illustrated that in general more than half of the participants believed that they had “Intermediate” level skills in general technological competency. On the other hand, the analysis done on the statements regarding the use of Tablet PCs and Android operating systems, which is given in Table 2, showed that the participants had not had much experience with Tablet PCs. For example, none of the participants had had a personal Tablet PC and only 20% of the participants had had experience with using the Android operating system before the Tablet PC experience started.

**Table 2:** Participants’ experiences with Tablet PCs, Android, and touch pad devices

<i>Statements</i>	<i>Yes</i>		<i>No</i>	
	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>
4 I have a personal Tablet PC.	0	0	40	100
5 I use Android operating system.	8	20	32	80
6 I use touch pad devices.	24	60	16	40

The number of participants who had had experience with using touch pad devices was relatively higher (24 out of 40); however, informal interviews that took place after the survey with the participants revealed that the

participants had had the experience in using Android and touch pad screens via their smart cell phones, not Tablet PCs.

**Comparison of participants’ general attitudes toward Tablet PCs in pre and post Tablet PC activity**

When participants were asked to compare their general attitude toward the use of Tablet PCs in relation to EFL, it was seen that participants’ attitude had become more positive after they had the experience in using Tablet PCs. Table 3 below shows the results of the data analysis done on the participants’ responses to the questions regarding their general attitude toward the use of Tablet PCs in EFL.

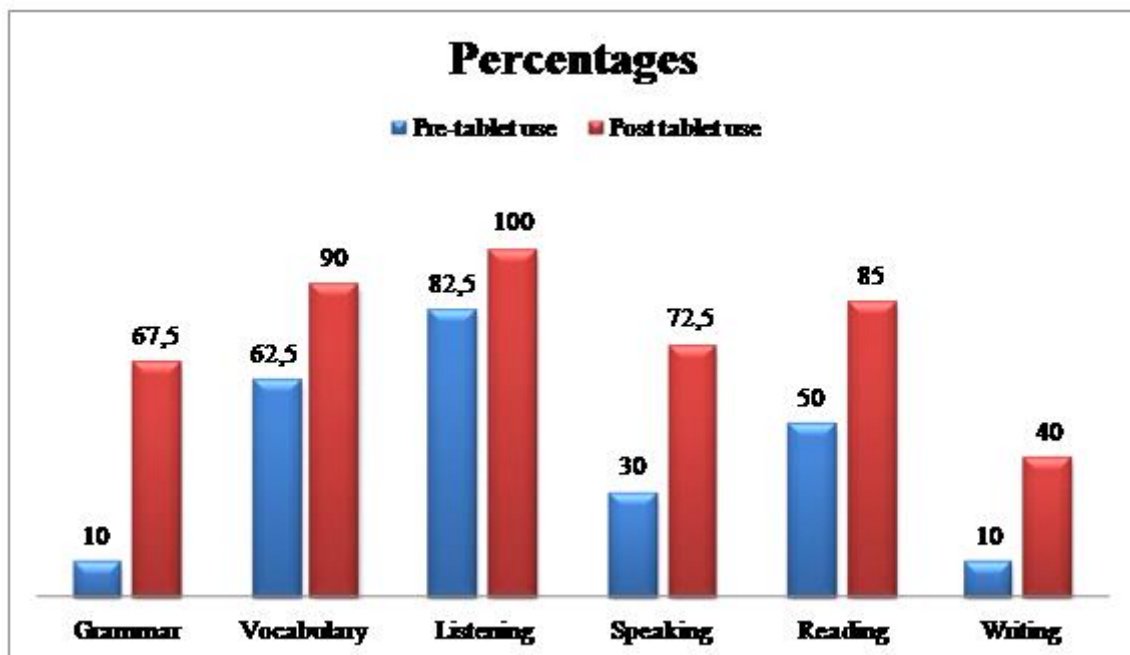
**Table 3.** Comparison of participants’ perceived general attitudes toward the use of Tablet PCs before and after Tablet activity.

Questions	Positive		Neutral		Negative	
	f	%	f	%	f	%
1 Participants’ perceived attitudes toward the use of Tablet PCs in EFL teaching/learning <b>before</b> they used Tablet PCs in relation to EFL.	19	47.5	13	32.5	8	20
2 Participants’ perceived attitudes toward the use of Tablet PCs in EFL teaching/learning <b>after</b> they used Tablet PCs in relation to EFL	31	77.5	7	17.5	2	5

As seen in Table 3 less than half of the participants (47.5%) held positive attitudes toward the Tablet PC use in EFL before they had experience with Tablets. After their experience with Tablet PCs, the percentage of participants who held positive experience increased up to 77.5%. In addition, 20% of participants held negative attitude before they used Tablets; however, this percentage decreased down to 5% (two out of 40 participants) after the use of Tablet PCs in relation to EFL.

**Comparison of participants’ responses toward the use of Tablet PCs in relation to teaching the subcomponents of EFL before and after Tablet PC experience**

In order to find the answer to the research questions of the study, the participants were asked to give their opinions on the effectiveness of the Tablet PCs in teaching the subcomponents of EFL both in Survey A and Survey B. Figure 2 illustrates the data analysis done to compare and contrast the views of the participants’ between two surveys.



**Figure 2.** Illustration of the comparison between participants’ views on the effectiveness of Tablet PCs in teaching subcomponents of English

As seen in Figure 2 before they had experience with Tablet PCs, in general the participants thought that Tablet PCs were effective in teaching Listening (82.5%), Vocabulary (62.5%), and Reading (50%) more than teaching

Grammar (10%), Speaking (30%), and Writing (10%). This trend also continued in Survey B; however, there was an overall increase in the perceived effectiveness of Tablet PCs in teaching all of the subcomponents of EFL. For example, after participants had the Tablet PCs experience, the perceived effectiveness of Tablets in teaching Grammar increased up to 67.5%.

In addition, effectiveness in relation to teaching Speaking in English increased up to 72.5%. One interesting finding was that all participants after the Tablet PC experience thought that Tablets were effective in teaching the Listening skill in English. The subcomponent of English with the lowest percentage was Writing (40%) in Survey B. In fact, Writing was the only subcomponent of English that received less than half of the participants support in using Tablet PCs to teach with. Nevertheless, it increased from 10% up to 40% after the Tablet PC experience.

## DISCUSSION AND CONCLUSIONS

The results of the study have several implications for researchers and educators who wish to use Tablet PCs in relation to teaching EFL. First of all, the results show that prospective teachers can develop more positive attitude toward the use of Tablet PCs in teaching EFL as they gain more experience in using these instructional tools. This finding was in line with Tingerthal's (2011) suggestion that technical problems that teachers face when they start teaching with Tablet PCs become less problematic in time as the instructors get used to using Tablet PCs and it becomes a part of their regular teaching routines. In addition, it is possible that the example tasks and materials of EFL in Google Play provided the prospective teachers a more detailed understanding of the possibilities that Tablet PCs can provide in instruction. Learning by and through examples and sample activities is extremely important for prospective EFL teachers as they have less actual teaching experience in a real classroom. If teacher educators wish to utilize Tablet PCs as instructional tools in EFL, it is essential that prospective teachers are given training and experience in using these devices.

In addition, the results of the study can imply that there should be more tasks, materials, and applications in teaching Writing skills in English via Tablet PCs. Software designers and researchers in the field of Instructional Technology can do more research and projects to develop more writing applications that can be used with an EFL classroom in mind. To do this, software designers, researchers, EFL teacher educators, and prospective as well as in-service teachers can work in collaboration to design more tasks/materials that would meet the needs of EFL learners and maximize the potential of Tablet PCs as instructional tools.

To sum up, in this study it was seen that the participants developed more positive attitude toward the use of Tablet PCs in relation to EFL as they gained experience in using Tablets. This study was carried out in one academic semester and with 40 participants in one BA program at a state university. More research is required across different institutions and different profile of prospective teachers over a longer period of time.

## ACKNOWLEDGEMENTS

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