The Role of University EFL Learners' Self-Efficacy in Using Technology Based Out-of-Class Language Learning Activities

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Abstract

The goal of this study was to ascertain how students see technology based out-of-class language learning activities as well as their views toward self-efficacy. Additionally, it also identified the relationship between EFL learners' self-efficacy and their usage of technology-based out-of-class language learning activities (TBOCLLAs). There were 133 Turkish EFL learners that participated in this quantitative study. They were requested to complete the TBOCLLA and self-efficacy questionnaires. The findings showed that they perceived positively about using technology for language learning activities outside of the classroom. It also revealed that the majority of students are capable of recognizing and maintaining their own sense of self-efficacy. There was a significant relationship between self-efficacy and TBOCLLAs. However, there was no statistically significant difference in the students' use of technology for activities outside of class based on their gender. The results indicated that students' perceptions of their use of technology for language learning outside of the classroom were greatly influenced by their sense of self-efficacy.

Keywords: Technology out-of-class language learning activities (TBOCLLAs), self-efficacy, attitudes, EFL learning.

Özet

Bu araştırmanın amacı öğrencilerin teknolojiye dayalı sınıf dışı dil öğrenme etkinliklerine nasıl baktıklarını ve öz-yeterlik konusundaki görüşlerini tespit etmektir. Buna ek olarak, bu çalışma aynı zamanda İngilizce öğrenenlerin öz-yeterlikleri ile teknolojiye dayalı sınıf dışı dil öğrenme etkinliklerinin (TBOCLLAS) kullanımı arasında bir ilişki de tespit etmiştir. Bu nicel araştırmaya 133 Türk İngiliz Dili Eğitimi (EFL) öğrencisi katılmıştır. Öğrencilerden TBOCLLA ve öz yeterlik anketlerini tamamlamaları istenmiştir. Araştırma bulguları, öğrencilerin sınıf dışındaki dil öğrenme etkinliklerinde teknolojinin kullanımına ilişkin olumlu algılara sahip olduklarını göstermektedir. Bu araştırma aynı zamanda öğrencilerin çoğunluğunun kendi öz-yeterlik duygusunu tanıyabildiklerini ve koruyabildiklerini ortaya çıkarmıştır. Öz-yeterlik ile TBOCLLAS arasında anlamlı bir ilişki bulunmuştur. Ancak öğrencilerin ders dışı etkinliklerde teknoloji kullanımında cinsiyete göre istatistiksel olarak anlamlı bir farklılık bulunmamıştır. Araştırma sonuçları, öğrencilerin sınıf dışında dil öğrenimi için teknolojiyi kullanma algılarının, öz-yeterlik duygularından güçlü bir şekilde etkilendiğini göstermektedir.

Anahtar Sözcükler: Sınıf dışı teknoloji destekli dil öğrenme aktiviteleri (TBOCLLAs), öz-yeterlik, tutum, İngilizceyi yabancı dil olarak öğrenme.

1. Introduction

Progress in technology is now inevitable. For students wishing to improve their English skills and gather knowledge from several trustworthy sources by using technology could have more potential and be easier. According to Dincer (2020), given the potential for extensive use of digital technology and the significance of English in a globalized society, it is important to comprehend activities outside of the classroom in order to be responsive to the continuously developing demands of current digital learners. In order to be successful, language learners need to work independently and put in extra practice outside of the classroom. Based on Lai, et al. (2015), the learners' engagement in complementary out-of-class learning activities significantly predicted their subsequent performance in both cognitive and non-cognitive language learning outcomes. According to Lee et al. (2019), technology has become an essential component of the educational environment and offers significant insights into creating a rich and productive setting for foreign language acquisition. Understanding the many technological learning experiences that learners have might be a more productive way to categorize and analyze the type and standard of language acquisition that happens outside of the classroom (Lai et al., 2018).

Considering how the world has evolved in the influence of technology and many technology users especially students have made the curiosity, and also in additional, little is known study about technology out-of class language learning activities (TBOCLLAs) and its relationships with learners' self-efficacy held in Turkey as primary reasons to conduct the study about how technology relates to students' self-efficacy and whether this can help them raise awareness of learning outside the classroom using technology. The main goal of this study is to investigate the relationships between learners' self-efficacy and the usage of technology based out-of-class language learning activities (TBOCLLA) in order to better understand how technology-based activities outside of school support the development of second languages for language teachers and researchers.

Literature Review

1.1.1. Technology-based out-of-class language learning activities (TBOCLLAs)

Technology has shown to provide innovative approaches to education. Numerous benefits of technology enhance language acquisition, including vocabulary development, speaking, writing, listening, and reading (Abunowara, 2014). Technology is moving progressively toward flexibility. Dudeney and Hocky (2008) mentioned that technology nowadays can be utilized at home, on the way to school, at Internet cafés, and in lecture halls, computer rooms, and self-access centers, among other places outside of the classroom. Another study found a range of out-of-class learning activities, with the most popular ones being watching English-language films and listening to English-language music, followed by another activity that was enrolling in English tutorial class (Lai, et al., 2015). It demonstrates that students like to use technology to enhance their English outside of the classroom. Somayeh & Takeshi (2016) in their study stated the combination of traditional classrooms with extensive computerized teaching and learning methods as the outcome of EFL teachers and students' rapidly increasing interest in technology-based learning contexts as blended learning settings.

In Honazard & Rassaei (2017) research, it revealed that there are the top four out-of-class activities that English language learners engage in: doing the search in English utilizing the most well-known search engines, such Google, using electronic dictionaries or translators, seeing movies and television shows and followed by using portable devices to join English-speaking social media groups. It demonstrates how students utilize technology to help them improve their English.

1.1.2 Leaners' self-efficacy

Self-efficacy is known as students' belief about their capabilities in certain areas or related to certain tasks (William & Burden, 2004). As Scwharzer et.al (1997) stated that if individuals think they can act to instrumentally address an issue, they feel more committed to the choice and are inclined to act accordingly. More self-efficaciousness was seen in individuals with a "high to very high" ICT (Information and Communication Technologies) comfort level as opposed to those with an "average" or "low to very low" comfort level (Ngo & Eichelberger, 2021). Another study also mentions that when the researcher employed technology to give students opportunities for genuine learning, the

participants were actively involved in completing the assignments outside of the classroom, indicating that the use of technology was an effective strategy (Helwa & Abdel-Hamid, 2019).

As the research above indicates, the use of technology in language instruction can have a significant impact on the effectiveness of second language development by affecting individual self-efficacy characteristics of language learners. As far as the analyzed literatures showed, there has been limited research conducted about how technology-based out of class activities might affect the learners' self-efficacy that was previously evaluated for language learners, especially in Kütahya, Turkey. To fill this gap, this study wants to figure out two things which are the main objectives of this research. First, it investigates technology-based out-of-class language learning activities (TBOCLLAs) which are more commonly used by Turkish EFL learners outside the language classroom. Second, this study wants to find out the relationship between the use of TBOCLLAs and Turkish EFL learners' self-efficacy. Finally, following questions for research were developed:

1. What technology-based activities are more commonly used by Turkish EFL learners outside the language classroom?
2. What are Turkish EFL learners general perceived self-efficacy believes?
3. Is there any statistically significant relationship between the use of TBOCLLAs and Turkish EFL learners' self-efficacy?
4. Do the relationships between the use of TBOCLLA and Turkish EFL learners' self-efficacy differ according to the gender of the learners?

1. Method

2.1. Research Design

In order to investigate the relationship between the use of TBOCLLAs and Turkish EFL learners' self-efficacy, this quantitative study employs a descriptive-correlational research methodology. The goal of correlational research is to ascertain how one variable correlates with another (Mackey and Gass, 2015). The two questionnaires that were used in this study discovered learners' frequency of Technology-Based Out-of-Class Language Learning Activities (TBOCLLAs) and evaluated learners' self-efficacy by using The General Perceived Self-Efficacy Scale (GPSES) questionnaire.

2.2. Participants

The participants of this study consist of 133 students of English Language and Literature Department in undergraduate degree at Kütahya Dumlupınar University, Turkiye. The students are divided into 49 male and 84 female. Student ages range from 18 to 39, with an average English language competence level of B2-C1. The questionnaires that were given to them were in English version because of seeing their English competence level.

2.3. Data Collection

Prior to the research, the appropriate "Ethical Committee" granted the required approval. Additionally, the participants were informed that all the data were utilized for a research article in an MA program. Participants gave their informed consent before deciding to take part in this study after receiving the "Google Forms" questionnaires on their cellphones. This study collected data by using two questionnaires which can be summarized as following: (1) learners' frequency of technology-based out-of-class language learning activities, and (2) learners' perceptions about their language learning self-efficacy. All participants were given the Likert scale TBOCLLAs (Technology Based Out-of-Class Language Learning Activities) Questionnaire which is developed by Honarzad and Rassaei (2019). The options available to the participants range from "1 = Never" to "5 = Always". According to international social research standards, the current edition of the questionnaire has a Cronbach Alpha index of .875 for TBOCLLAsQ. This indicates a high degree of validity and reliability. Another questionnaire to evaluate learners' self-efficacy is The General Perceived Self-Efficacy Scale (GPSES) questionnaire. Jerusalem and Schwarz (1979) which is cited in Honarzad & Rassaei (2019) created the original version of this questionnaire which has twenty components. After being pared down to the ten-item GPSES scale, it was translated by Mary Wegner from the German original by

Scwharzer and Jerussalem (1992). Many studies have employed the GPSES, and they have generally produced internal consistencies between alpha.75 and.91 (Honarzad & Rassaei, 2019).

2.4. Data Analysis

The researcher first computerized the data. Frequency analysis was used to control all of the data, and it was found that there were no errors in the data entry. The data were analyzed by using Jamovi software version 2.4.11 for both descriptive and inferential statistics. A descriptive analysis was done to determine is there any positive attitudes towards the use of technology outside of the classroom by Turkish EFL learners and learners' self-efficacy. Moreover, a substantial association between TBOCLLAs and learners' self-efficacy was examined using the estimation of Pearson Correlation Coefficients. Additionally, independent sample t-test was used to determine whether there is a significant difference between TBOCLLAs and self-efficacy based the gender.

3. Findings

The data were analyzed using a quantitative method using both descriptive and inferential statistics. The findings, which comprise data analysis and interpretation to directly address the study issues, are presented in terms of statistical computations.

3.1 Learners' Perception of Their Using of Technology Out-of-Class Activities

Table 1.

TBOCLLAs Questionnaire Description

	M	Mdn	SD
I surf the Internet in English using computers or mobile devices.	4.20	4	0.833
I use YouTube and similar video-sharing websites to watch videos online.	4.22	5	0.940
I read e-books and e-magazines in English on computers or mobile devices.	3.19	3	1.162
I read the news in English over the web on computers or mobile devices.	3.39	3	1.120
I join English groups and channels on WhatsApp, Telegram or similar applications.	2.60	2	1.249
I use Wikipedia and other online encyclopedias on computers or mobile devices.	3.89	4	1.130
I write in English to other English speakers via WhatsApp, Telegram or similar apps.	3.32	3	1.306
I use English language learning software and apps on computers or mobile devices.	2.90	3	1.313
I play games in English on computers or mobile devices.	3.73	4	1.343
I use dictionaries or translators on computers or mobile devices.	4.27	5	0.954
I listen to the recorded voice of my teacher(s) after the class.	1.56	1	1.040
I call native English speakers on Skype, Whatsapp, Facetime or similar apps.	2.03	2	1.187
I search in English through Google, Yahoo, Bing or similar search engines.	3.96	4	1.040
I listen to radio in English through computers or mobile devices.	2.62	2	1.335
I write in English language on Instagram, Facebook and similar apps.	3.36	3	1.281
I listen to English songs in MP3 format on computers or mobile devices.	4.00	5	1.291
I write emails in English via computers or mobile devices.	3.02	3	1.062
I watch movies and TV series in English via satellite receivers or similar devices.	4.20	5	1.085

As reported in Table 1, descriptive statistic shows that the use of technology out of class activities mostly has high frequency in terms of using different kind of technology tools such as computers, television and mobile devices and also varies of applications such as Instagram, Whatsapp, Facebook, Skype, Google, Facetime and another similar apps. It is noticeable that the lowest score is listening to the recorded voice of teachers after the class.

3.2 EFL Learners General Perceived Self-Efficacy Believes

The table 2 shows a descriptive statistics of learners' perception about their self-efficacy. It is showed that the students are mostly able to show positive attitudes about their self-efficacy. The beliefs about trying hard to solve difficult problems and the certainty to accomplish their goals are the two highest score from the data. The two beliefs with the highest scores from the data are the conviction that they can overcome obstacles and the confidence that they would succeed in achieving their goals.

Table 2.

GPSES Questionnaire Descriptions

	M	Mdn	SD
I can always manage to solve difficult problems if I try hard enough.	3.07	3	0.720
If someone opposes me, I can find the means and ways to get what I want.	2.86	3	0.750
I am certain that I can accomplish my goals.	3.06	3	0.736
I am confident that I could deal efficiently with unexpected events.	2.80	3	0.814
Thanks to my resourcefulness, I can handle unforeseen situations.	2.74	3	0.825
I can solve most problems if I invest the necessary effort.	3.18	3	0.705
I can remain calm when facing difficulties because I can rely on my coping abilities.	2.76	3	0.845
When I am confronted with a problem, I can find several solutions.	2.99	3	0.839
If I am in trouble, I can think of a good solution.	2.95	3	0.777
I can handle whatever comes my way.	2.83	3	0.848

3.3 The relationship between the use of TBOCLLAs and Turkish EFL learners' self-efficacy

The table 3 shows that there is a .380 ($p<.001$) Pearson association between TBOCLLAs and self-efficacy. Thus, it can be concluded that the use of technology out-of-class activities and the self-efficacy of Turkish EFL learners have a strong positive and significant relationship.

Table 3.

The Correlation Between Learners' Self-Efficacy and Technology Usage

	Technology
Self-Efficacy	.380

According to the table 4, learners' self-efficacy accounts for 14.5% of their usage of technology outside of the classroom ($R^2 = .145$). However, the p-value (<.001) indicates that, more generally, learners' self-efficacy can have a significant influence on how they use technology in some activities outside of the classroom.

Table 4.

Model Fit Measures

Model Fit Measures						
			Overall Model Test			
Model	R	R^2	F	df1	df2	P
1	0.380	0.145	22.2	1	131	< .001

3.4 Do the relationships between the use of TBOCLLA and Turkish EFL learners' self-efficacy differ according to the gender of the learners?

As it can be seen from the table 5, there is no significance difference between the learners using of technology out-of-class activities and the gender (p-value = .505).

Table 5.

The use of TBOCLLA and Self-Efficacy of Turkish EFL Learners According to Gender

Self-Efficacy	.059
Technology Usage	.505

In contrast, regarding learners' self-efficacy and gender, there is a marginally significant difference (p-value = .059).

4. Discussion and Conclusion

According to the findings of this study, students most frequently choose to use dictionaries or translators on their computers or mobile devices for other educational purposes outside of classroom activities (mean = 4.27). Translator or dictionary applications on mobile phone are very fast in providing results. This can be very useful in situations where learners need a translation or definition quickly. Furthermore, Lee (2020) found that with the application of MT (Machine Translation), the students reduced the lexico-grammatical mistakes in their writing and improving the quality of their work. That would be highly beneficial for students do their homework on essays or other writing assignments at home. The following positions of the results are the using of YouTube, surf the Internet and watch movies in English which has a slightly difference of mean (4.22 and 4.20) with the use of translator one. Moreover, Al-Hammouri et al. (2022) indicated that EFL learners' usage of YouTube videos to enhance their English language learning is encouraged by their technological self-efficacy. In contrast, the lowest statistical data (mean = 1.56) belongs to listening to the recorded voice of professors after class. Nevertheless, neither the professor's nor the students' videos are combined in an edited video provide a greater feeling of classroom interaction and help the learners who watch or listen to it comprehend the material presented in the lectures (Odhabi & Nicks-McCaleb, 2011).

The results also indicated that learners' self-efficacy and TBOCLLAs have a positive and slightly significant relationship. Although the probability of self-efficacy having an impact on students' use of technology outside of the classroom is less than 20%, in general, it may have an effect. The learners' self-efficacy significantly improved as a result of taking part in using technology during language learning (Alotumi, 2020; Namaziandost & Çakmak, 2020; Yukselturk, Altıok & Başer, 2018). The previous study by Honarzad and Rassaei (2019), has parallel results with this study, also inferred that learners' self-efficacy and technology out-of-class language learning activities had a positive relationship both statistically and significantly. Self-efficacy was shown to be higher in individuals with a "high to very high" ICT comfort level than in those with a "average" or "low to very low" comfort level (Ngo & Eichelberger, 2021). A learner who has high self-efficacy will increase the percentage of using technology by their own outside of classroom. Dong et al. (2022) also added that the using technology-enhanced teaching techniques like CALL and MALL can benefit psychological aspects (e.g., motivation, anxiety and self-efficacy) of language acquisition among Iranian EFL students. Additionally, Balaman (2020) concluded that the idea of self-efficacy and a positive attitude toward educational technology following participation in the study of digital storytelling usage are mutually related. It is safe to be inferred that both of these variables, TBOCLLAs and self-efficacy, have an effect on each other. In sum, as supported by descriptive and statistical findings and also interpretations from a number of related studies, self-efficacy influences both the willingness to study independently and the intensity with which technology is used as language learning tools outside of the classroom activities.

As pointed out above, the relationship between self-efficacy perceptions toward technology out-of-class language learning activities (TBOCLLAs) could be effectively confirmed by the current study. It illustrates that Turkish EFL learners' self-efficacy positively affected the using of technology as their media to learn English outside of classroom. Besides, there is no significant difference in TBOCLLAs based on gender. The findings of this study play an essential role in helping teachers make more use of modern technology in the classroom. The technology tools that are most frequently utilized are those that include YouTube, translators, and English-language movies. Therefore, teachers

could more incorporate those tools to be the resources of learning materials into their lesson plans to encourage students to learn independently outside of the classroom.

This study will not come up without limitations. There are certain limitations to this study. Specifically, the data was solely acquired through the use of self-report questionnaires, which was a pure quantitative technique. This study was limited to local English as a foreign language (EFL) learners and concentrated on the local community in the academic context where the researcher studies. Importantly, future research can add some other methods such as interviews or observations to flesh out the study to be more perfect.

Note on Ethical Issues

The authors confirm that ethical approval was obtained from Kütahya Dumlupınar University Graduate Education Institute Directorate (Approval Date: 04 / 06 / 2024).

Conflict-of-interest

The authors have no conflicts of interest to declare.

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