The Journal of Language and Linguistic Studies
Vol. 8, No.2, October 2012

EFL Learners' Use of ICT for Self-Regulated Learning

Serkan Çelik
sercelikan@yahoo.com
Erkan Arkın
erkan.arkin@emu.edu.tr
Derya Sabriler
derya.sabriler@emu.edu.tr

Suggested Citation:

Çelik, S., Arkin, E., and Sabriler, D. (2012). EFL learners' use of ICT for self-regulated learning. *The Journal of Language and Linguistic Studies,* 8 (2), 98-118. http://www.jlls.org/vol8no2/98-118.pdf

Abstract

Problem Statement: The notions of autonomy and independence possess an increasingly important role in language pedagogy by raising issues such as learners' responsibility for their own learning, and their right to determine the direction of their own learning, the skills which can be learned and applied in self-directed learning and capacity for independent learning and the extents to which this can be suppressed by institutional education.

Purpose of Study: This study attempted to enrich our understanding of language learners' self-initiated use of information and communication technologies (ICT) from the language learning perspective.

Methods: The participants were 399 language learners who were attending the intensive English language preparatory program at the Eastern Mediterranean University, North Cyprus. The study was based on a survey which consisted of demographic and language learning backgrounds of the participants, and likert-scale questions on participants' self-initiated use of ICT for language learning. The data collected were validated through factor analyses. Beside descriptive analyses, chi-square and t-test were also used to

reveal the associations between demographic variables and different dimensions of ICT use in selfregulated language learning.

Findings and Results: An obvious finding to emerge from this study is that there are no statistically significant differences regarding the male and female participants' use of ICT for self-regulated learning, and between language levels of the learners. Considering the responses, the learners mostly use ICT to practice listening, vocabulary and writing skills.

Conclusions and Recommendations: The overall outcome of the study points to the need for learner training, teacher support and guidance for an effective use of ICT for self regulation of language learning.

Keywords: EFL, ICT, technology enhanced language pedagogy, self-regulated learning

Introduction

The concepts of learner autonomy, learner independence, self-access learning, self-paced learning and self-regulated learning underscore a transition of attention to the learner-oriented approach to language pedagogy. Furthermore, these learning contexts, varying in the degree of learner autonomy afforded to learners, are regarded as the core concepts of contemporary pedagogical perspectives under the effect of lifelong and individualized learning (Bandura, 1997; Benson, 2006). Dickinson (1987, p. 11) explains such self-instruction contexts as 'situations in which learners are working without the direct control of the teacher'. Correspondingly, Little (2000, p.69) posits that *autonomy* refers to 'assuming responsibility for determining the purpose, content, rhythm and method of [one's] learning'.

The prominent traits of learner autonomy can be best described as moving the focus from teaching to learning (Lacey, 2007), implementing self/peer assessment, and self-regulated learning. In addition, autonomy for the language learners has been described as 'a process that enables learners to recognize and assess their own needs, to choose and apply their own learning strategies or styles eventually leading to the effective management of learning' (Penaflorida, 2002, p. 346). Hence, the topics of autonomy and independence play an increasingly important role in language education by raising issues such as learners' responsibility for their own learning, and their right to determine the direction of their own learning, the skills which can be learned and

applied in self-directed learning and capacity for independent learning and the extents to which this can be suppressed by institutional education (Finch, 2001). Previous studies have established that self-regulated skills can foster learning from/considering any instructional method (see Ertmer, Newby, & MacDougall, 1996; Lindner & Harris, 1998; Weinsten, 1989; Zimmerman, 2000).

Self-Regulated Learning

A couple of decades ago, the attention of research in the field of language education turned to individual differences among learners (Ehrman, Leaver, & Oxford, 2003). The attempts under identifying the characteristics of "good language learners" aimed to define some behaviors and techniques that could be imposed to the rest of the learning community. The context of individualized instruction promoted the idea that learners should regulate their own learning processes. Thus, self-regulated learning (SRL) has emerged as an important construct in education (Boekaerts, 1999) and is now seen as an important aspect of students' academic performance and achievement in the classroom (Hofer, Yu, & Pintrich, 1998). The definitions of the SRL in the literature generally focuses on notions such as 'constructive and self-directed process' (Winne, 1995), 'an individual's ability and motivation to implement learning strategies (Ertmer et al., 1996), and a motivation triggering mental aspect (Chang & Wu, 2003). While Bandura (2001) perceives self-regulation as the process by which individuals exercise their agency, Leaver, Ehrman and Shekhtman (2005) defines it as the process by which learners both exercise and develop learner autonomy. The self-regulated learning strategies such as monitoring, controlling and regulating one's cognitive activities and behaviors (Garcia & Pintrich, 1994) have all been used to help students develop a sense of personal control, which is believed to be a major source of intrinsic motivation to continue learning on their own (Zimmerman, 1995).

Self-regulation of learning, which is a process by which learners direct and coordinate their efforts, thoughts, and feelings in order to achieve their learning goals (Zimmerman, 2000), is also considered as a goal by language teachers (Healey, 2002). Relatively, the outcomes of the language research on the motivating effect of technology demonstrated that learners become selfdirective and very active in technology supported environments (Gale, 1991; Watts & Lloyd, 2001).

Out of class learning is perceived as an important predictor of self-regulated learning (Lai & Gu, 2011). Existing studies of out-of-class language learning have indicated that second language learners involve in a variety of learning activities outside the classroom (Freeman, 1999; Zimmerman, 2000). Lai and Gu (2011) point out that out-of-class language learning activities such as TV, radio, and movies have been found to serve a variety of functions in shaping a positive learner identity, maintaining motivation for learning (Lamb, 2007), providing learners with a supportive learning community, offering learners a place for self-expression, and enhancing their self-perception (Gao, 2009). However, the research in out-of-class language learning is still lack of providing the landscape of learners' self-initiated use of technology for language learning purposes.

Out of Class Language Learning via Technology

The reason for focusing on the technological venues and resources for out-of-class language learning is that technology holds great educational potentials for language learning (Thorne et al., 2009; Zhao & Lai, 2007). As a result of the advancements in the media combining learning and entertainment, imbedding language learning endeavour in out-of-class time becomes a preference for many students. Out-of-class language learning activities are basically the acts of the learners for improving their language skills outside of the classroom. Benson (2001) focuses on self-instruction as a prominent part of out-of-class learning. She describes self-instruction as an environment where learners locate 'resources' to help them improve the target language. Information Communication Technologies (ICT) may be seen as the main referrent of the term 'resources' mentioned above.

Technology is an ill-defined concept that encompasses a wide range of tools, artifacts, and practices though (Zhao, 2003); the role of ICT in fostering autonomy has been vaunted over the years, with a number of claims made in favor of technology-enhanced language learning (Healey, 2002). Those claims include that ICT, especially multimedia, supports different learning styles; that computers and the Internet provide a wealth of resources to independent learners; and that certain software packages can offer a complete curriculum for language learning. Correspondingly, previous studies have established an association between home ICT use and learning outcomes (Beltran, Das, & Fairlie, 2006; Lam, 2000; 2004). However, some of the research previously

conducted suggest that contemporary students are not using technology or perceiving the value of emerging technology (especially the communication and Web 2.0 media) for language learning outside school (Winke & Goertler, 2008; Zhang, 2010). Self-regulated learning enhanced through ICT may help learners realize that their contribution to the teaching-learning process is crucial and also encourages them to take an active role in their own learning (Healey, 2002).

The existing literature has a lot to offer in terms of the educational power of individual technologies, efficacy of pedagogical uses of individual technologies, design of technology-enhanced learning environments, and users' reactions to technology-enhanced teaching and learning experiences (Lai & Gu, 2011). Considering the large amount and variety of technological resources available to enable learners to engage with the language on their own, it is important to understand how language learners are using technology to regulate their language learning experience. However, there is still lack of research considering learners' autonomous use of technology for language learning in the current literature.

Surveying 911 beginner-level foreign language students at an American university on their use and perceptions of technology for language learning, Winke and Goertler (2008) found that the students' use of technology for language learning was restrained. Furthermore, students were generally found to lack the appropriate literacy to use technologies for language learning purposes, and few students in their study (less than 25%) realized the language learning potentials of the various technologies they used frequently in their daily lives. Zhang (2010) found that the university EFL learners in China did use technology to support their language learning (an average of 13.23 hours per week). However, similar to Winke and Goertler's (2008) findings, the students' use of technology was very limited. Gai and Liu (2011) argue that the limited research in out-of-class language learning via ICT is not satisfying in terms of purporting the complex nature of technology use.

Among other factors, the concept of self-efficacy, as proposed by Bandura (1977), is argued to be a determining dynamic in computer self-efficacy. Referring to the literature, including several studies conducted in Turkey, Topkaya (2010) highligts the findings supporting this argument. The findings in Topkaya's study were largely consistent with those of previous research in that the participants' perceptions of

computer self-efficacy were closely related to how they perceived their general self-efficacy.

Investigating university level Turkish EFL learners' readiness for learner autonomy, Yildirim (2008), examined 103 learners' perceptions of their abilities to act autonomously. The study found that the majority of the participants engage in outside class learning activities, including those using ICT tools, which can be considered as the signs of autonomous behavior. The study also revealed that students who have a positive approach to their abilities to behave autonomously reported to have been performing more autonomous behavior in their self-regulated learning.

Considering the situation in North Cyprus, Serin (2012) analyzed ICT (mobile learning technologies in particular) perceptions and levels of university students, with specific focus on the factors of major of study and gender. The study found that the participants' mobile learning perception levels were low and there was no significant difference according to the department and gender variables. In another study, Hussein (2010) looked at the attitudes and behaviours of undergraduate students towards motivation and technology in a foreign language learning classroom. According to the results of the study, although the participants reported technological facilities have a positive effect on their classroom performance and learning, some stated they struggle to accept technology due to the insufficient use of technology tools in their classroom and self-learning practices.

This study attempted to enrich our understanding of language learners' self-initiated use of technology from language learning perspective. Examining the nature of language learners' selective use of technology on their own to regulate the various aspects of their language learning experience, this study utilized the following research questions to collect data:

(1) Is there any difference between male and female students regarding ICT use to regulate their language learning experience outside the classroom?
(2) Is there any difference between elementary/preintermediate and intermediate/advanced level students regarding ICT use to regulate their language learning experience outside the classroom?
(3) Which language skills are mostly practiced through ICT at out-of-class time?
(4) What are common ICT environments used by the participants for SRL purposes?

(5) How do the language learners use technology to regulate their language learning experience outside the classroom?

Method

Participants

The participants were 399 language learners who were attending intensive English language preparatory program at the Eastern Mediterranean University. All the participants were young adults studying intensive English at the Prep School prior to starting their major at their academic departments. Fifty-three percent of the participants were female and forty-seven percent were male. The participants fell into two distinct groups regarding their levels of English: elementary and intermediate. Intermediate is the exit level and the students have to complete this level in order to go to their departments.

Of the 399 participants, 362 (91%) filled in the Turkish version of the questionnaire (see Appendix 1), while 37 (9%) filled in the English version (see Appendix 2). Of those who chose to respond to the English version stated the following languages as their mother tongue: Arabic, Azeri, Kurdish, Persian, Tajik, Kyrgyz, Georgian, Kazakh, and Russian. The average age of the participants was 19.3 years. The participants were from diverse disciplinary backgrounds, with only 6% from a language and culture study background.

Materials

The study was based on a survey, adapted from Lai and Gu (2009) with a written consent, consisted of two sections: (1) demographic and language learning backgrounds (e.g. age, gender, language level, ICT competency, language skills for which ICT used, preffered use of ICT for language studies, etc.) (2) 28 Likert-scale questions on students' self-initiated use of technology for language learning. These items were all on a scale from one, strongly disagree, to five, strongly agree. The instrument was pilot tested on six foreign language learners at this university for their understanding of each item in the survey, and then in on 12 foreign language learners to determine the time needed to complete the survey and for additional issues concerning the survey. Rephrasing of survey items and reformatting of the survey was done based on the pilot tests.

Procedure

Prior to the actual use, adapted survey was translated into Turkish and re-translated into the English for validation issues. Two language experts checked the consistency of the translations. After revising the forms, the surveys in English and Turkish were administered in the spring of 2012. The survey was delivered to the students in a face to face mode. As a result, 399 students completed the survey. The students were purposively sampled from the high-user, medium-user, and low-user groups based on their survey responses so as to obtain a comprehensive view of the reasons behind their selective use or non-use of technologies for language learning.

Data analyses

The data collected on students' self-reported use of technology in self-regulating their language learning were validated through exploratory factor analysis. Factor analysis is used to describe variability among observed, correlated variables in terms of a potentially lower number of unobserved variables called factors. (Büyüköztürk, 2002). However factor analysis may not be appropriate for all data sets. Kaiser-Meyer-Olkin (KMO) coefficient is a key to decide on the applicability of the factor analysis. Relatively, *Bartlett's test of sphericity* tests whether the correlation matrix is an identity matrix, which would indicate that the factor model is inappropriate. A KMO value over than .60 and the significance of the Barlett test meet the assumptions of factor analysis (Büyüköztürk, 2002).

Results (KMO=0.94; X^2 = 4075,627; sd=378; p= 0.00) indicated that data set is legible to undergo a factor analysis. Veriler üzerinde temel bileşenler analizi yapılmıştır. Principal Component analysis conducted on the data revealed that the scale includes 1 factor with a 45.53 value of explained variance. After removing the items with low communality (9, 11, 15, 19, 21), a further factor analysis was conducted. The final version of the scale is observed as having one factor and 23 items. Briefly, factor analysis results pointed out that the adopted scale is valid to measure the ICT use of tertiary level students to self-regulate their language learning. The overall Cronbach's Alpha value for the likert-scale items was found out as .97 which means a high inner consistency of the gathered data. Beside descriptives, chi-square and t-test were used to

reveal the associations between demographic variables and different dimensions of technology use in selfregulating language learning.

Findings

This section elaborates on the findings of the current study as a result of the statistical procedures followed. Adressing the first and second research questions, independent samples t-test analyses were conducted to compare the mean scores for the gender and language level within each group. Table 1 depicts groups' responses toward the scale.

Table 1

Participant t-test results in terms of gender and language level

	Mean	Sd	t	p
Male Participants	107.04	19.57	1.55	.194
Female Participants	104.04	16.94		
Low level participants	99.76	18.21	-1.49	.948
Upper level participants	105.36	17.80		

The results indicated that there are no statistically significant differences regarding the male and female participants' use of ICT for self-regulated learning, and between low and upper levels of learners ($p < .05$).

The participants were also inquired on their self-efficacy on using ICTs for general and language learning purposes. The results indicated that while respondents perceive themselves able in using ICTs for leisure purposes, they do have some concerns on their ICT related skills for improving their foreign language learning abilities. The following table depicts students' perceptions on the language skills practiced using ICTs for regulating their language learning experience.

Table 2

The skills practiced using ICT for self-regulated language learning

Skill	**%**
Listening	70.7
Vocabulary	59.1
Writing	58.1
Speaking	54.9
Reading	41.1
Grammar	38.3

Regarding the language skills, the participants reported they used the ICT and benefited from it to practice listening, vocabulary and writing the most. Speaking, reading and grammar were reported to be practiced the least. In addition to the language skills practice, the participants were also given a list of uses of ICT and were asked to tick the ones they practiced. They were told they could tick more than one use. The following table portrays the respondents' use of ICT for regulating their language learning process.

Table 3

Students' use of various ICT media for self-regulated language learning

Items	f	%
Surfing the websites on Internet	181	45.4
Using audio and video sharing websites, like YouTube	187	46.9
Watching DVD movies (with subtitles in the foreign language)	232	58.1
Watching DVD movies (with subtitles in your mother language)	198	49.6
Watching TV programs in the foreign language	182	45.6
Listening to music in the foreign language on music players, like iPod and mp3	203	50.9
Communicating with people in the foreign language on social network sites, like Facebook and MySpace	235	58.9
Communicating with people in the foreign language by using chat programs, like MSN and Skype	121	30.3
Reading books, magazines, newspapers, etc. in the foreign language	226	56.6

The top uses were *communicating with people in the foreign language on social network sites, like Facebook and MySpace*, and *watching DVD movies (with subtitles in the foreign language)*; the use reported to be employed the least was *communicating with people in the foreign language by using chat programs, like MSN and Skype*. Considering that the top uses entail writing and listening skills, and the least reported use requiring speaking, it can be concluded that the responses supported the ones given for the common uses of ICT for practicing particular language skills the most, i.e., listening and writing; while reading and speaking was among the ones practiced the least.

Use of ICT for Self-Regulated Learning Experience

The effect of the six factors identified by Lai and Gu (2011) for self-regulated learning was the major focus of investigation in this study. These six factors included using technology for goal commitment regulation, metacognitive regulation, resource regulation, cultural learning regulation, social regulation and affection regulation.

Looking at the participants' responses to the items under these six categories, it was observed that all the factors seem to have been perceived positively. Table 4 below lists the factors as they are perceived by the participants, from the most positive to the least.

Table 4

How do students make use of ICT for self regulated learning?

Type of regulation	**Mean**	**Sd**
Goal commitment	3.89	0.90
Affective	3.72	1.02
Social connection	3.71	1.02
Resource	3.70	1.18
Metacognitive	3.69	1.01
Culture learning	3.16	1.01

Note: Mean values are based on a 5-item Likert scale (5-strongly agree; 4-agree; 3-not sure; 2-disagree; 1-strongly disagree)

Looking at these six factors, the participants reported positive perception of and engagement with the use of technology for goal commitment and affective regulation. Following that, social connection regulation, and resource regulation were reported to be less positive. And finally, the participants' response to the use of technology to monitor their learning and to enhance their cultural learning was the least positive (see Table 5 below for details of the responses).

Table 5

Responses of the students toward the ICT use for self-regulated language learning scale

Items	SA + A	Not Sure	DA + SD	
Goal Commitment Regulation				p
1. ICTs are important sources and tools to maintain my interest in achieving my language learning goal.	301	74	28	.001
2. I believe ICTs can help me continue in reaching my ultimate goal in learning the language.	299	110	40	.001
3. I believe ICTs can help me achieve my language learning goals more quickly and efficiently.	292	83	23	.001
Affective Regulation				
4. When I feel bored with learning the language, I use ICTs to decrease the boredom and increase the enjoyment.	270	90	49	.001
5. I use ICTs to make the task of language learning more attractive to me.	243	107	49	.001
6. I feel ICTs effectively maintain my interest and enthusiasm in learning the language.	227	115	55	.001
7. When I start to resist learning the language, I use ICTs to help myself regain the interest and enthusiasm.	212	127	60	.001
Social Connection Regulation				
8. ICTs help to make my language learning a relaxing process.	248	105	45	.001
9. ICTs make me enjoy learning the language more.	246	104	39	.001
10. I use ICTs to increase the time I spend on learning the language.	251	102	46	.001
11. I use ICTs to connect with native speakers of the language.	255	103	41	.001
12. I use ICTs to connect with other learners all over the world.	251	101	46	.001
13. I use ICTs to search for encouragement and support from other learners of the language.	269	80	50	.001
Resource Regulation				
14. When I feel I need more learning resources in the language, I use ICTs to expand my resources.	289	87	23	.001
15. I use ICTs to increase my learning experience outside the language classroom.	320	56	23	.001
16. I use ICTs to create and increase opportunities to learn and use the language.	284	90	35	.001
17. I use ICTs to search for learning resources and opportunities to help achieve my goals.	274	80	44	.001
18. I search for attractive language learning materials and experience delivered by ICTs.	271	91	37	.001
Metacognitive Regulation				
19. I know how to use ICTs to effectively monitor myself to achieve the learning goals at	222	130	47	.001

each stage.				
20. I plan learning tasks to do outside of school that involve the use of ICTs.	217	124	55	.001
21. I plan relevant materials to do outside of school that involve the use of ICTs.	231	126	50	.001
22. I adjust my language learning goals using ICTs.	239	119	37	.001
23. I am satisfied with the way I use ICTs to help myself continue in reaching my learning goals.	236	114	49	.001
24. I set sub-goals for the next stage of learning in the light of how much I can understand and produce when using ICTs to acquire information or communicate with others.	236	122	40	.001
25. For the areas that I am weak in, I know how to select and use appropriate ICTs to improve the areas.	243	110	45	.001
Culture Learning Regulation				
26. I use ICTs to help myself to increase my ability to interact with the target culture.	245	110	42	.001
27. I use ICTs to help myself understand and appreciate the target culture better.	246	105	47	.001
28. I use ICTs to search for answers to my questions about the language and culture.	248	97	53	.001

All the chi-square goodness of fit test results showed significance which means a rejection of the possibility that no association exists between the independent and dependent variables.Thus we can conclude that the sample data are consistent. The items related to regulating learning for commiting goals indicate that majority of the students perceive ICTs as important sources and tools to achieve their language learning goals. A notable outcome in this category is that nearly one fourth of the respondents declared their indecisiveness on the importance of the technology related media on their language learning process. The results portrayed above also point out that comparing to the rates in goal commitment regulation, students responded less positively toward the use of ICT for affective regulation of their language learning. In terms of exploiting ICT for enhancing social connection within language learning perspective, many of the students declared their positive efforts to regulate their social learning through ICTs. Students also indicated a highly positive attitude on their use of ICT for regulating their language learning resources which corresponds to one of the leading roles of ICT in language learning pedagogy. Exemplifying the respondents' perceptions in favour of the resource regulation, a vast majority (320 students) of them agreed that they use ICTs to increase their learning experience outside the language classroom. The metacognitive regulation category, which is the most crowded one, includes seven statements on the use of ICTs in self-regulated learning. Comparatively, the rates clearly point out that students perceive the role of ICTs for self monitoring their learning not as important as the previously mentioned categories such as goal commitment and resource regulation. It is also apparent that the rates of those who checked the *not sure* option is higher than

the other item categories. As the last group of the statements in the scale, using ICTs for self regulating culture learning though language learning was not considered as solidly important from the perspectives of the participants. The following section will elaborate on the findings of the current study in comparison with the existing research in the field.

Discussion and Conclusion

This study was set out to determine university level language learners' use of information and communication technologies for self-regulated learning (SRL) which is the theoretical framework to conduct the current research due to the close association between SRL and technology-enhanced learning underlined throughout the literature (Bernacki, Aguilar, & Byrnes, 2011; Lai & Gu, 2009; Steffens, 2006). As a motive in attempting to explore EFL learners' use of ICTs for self-initiated language learning, Hannafin and Hannafin (2010) claims that technology-supported learning environments are well used by learners with self regulated learning abilities, and SRL promotes learning outcomes.

This study has found that generally the technological profiles of the participants in the current study are in accordance with those reported in previous studies (Lai & Gu, 2009; Winke & Goertler, 2008; Zhang, 2010). The results showed that although participants do have some limitations about the use of technology for language learning, they perceive themselves competent in general technological proficiency. The most obvious finding to emerge from this study is that there are no statistically significant differences regarding the male and female participants' use of ICT for self-regulated learning, and between elementary and intermediate levels of learners.

The following conclusions can be drawn from the present study. First of all, the results reveal that learners do use ICT in their out-of-class learning activities, employing it to regulate different aspects of their language learning experience. This shows that ICT has its role as an engaging tool in supplementing language learning process. Thus, the findings of this study are in line with the findings Lai and Gu (2009) report. Considering the responses, it seems that the learners in this study use ICT to practice listening, vocabulary and writing skills the most. Speaking, on the other hand, along with reading and grammar, was reported to be practiced the least. This might indicate either learners' unwillingness to practice speaking (as it seems to be the least developed

skill among most Turkish learners) or lack of access to the sources available to practice speaking (e.g., recording and playing back, communicating with other users via synchronous/ asynchronous communication tools).

The second major finding was that in this study, it has been found that the participating students benefit from ICTs to regulate different aspects of their language learning experience, using ICTs especially to help reach their language learning goals and to motivate themselves by making language learning and enjoyable process with the help of ICT tools. The learners in this study also seem to be employing ICTs as a resource to supplement their learning process, as well as using them to connect with other learners to practice and improve their language skills.

The results in this study also reveal the learners' selective use of ICT. Considering the least practiced skills, such as speaking, and the least employed regulation of ICT, i.e., metacognitive regulation and culture learning, it can be argued that the learners seem to avoid certain uses of ICT. While there may be possible factors explaining learners' tendency to employ ICT to practice certain skills and avoid some others, the situation points to the need for learner training and teacher support and guidance.

As in the study conducted by Lai and Gu (2009), the evidence from this study suggests that instructors do have a critical role in supporting their students in use of ICTs outside the classroom to regulate their language learning. The role of language teacher includes providing information on current technologies and resources to the language learners. Correspondingly, Lai and Gu (2009) maintain that the crucial thing is to encourage and support the learners as an important part of their language curriculum so as to help them reap the advantages of ICTs to promote their language learning. In effect, various researchers have argued for the importance of such preparation and support in effective technology use (Blake, 2008; Hoven, 2006; Winke & Goertler, 2008), and some studies have already yielded positive evidence for the efficacy of learner training in the effective use of online resources and enhanced learning outcomes (O'Bryan, 2008; Romeo & Hubbard, 2008).

These outcomes of the current study also suggest that learner training, not only in language learning beliefs (Ellis, 2008; Ewald, 2004), but also in metacognitive knowledge about technology-enhanced language learning, is much needed to encourage

students to use technology actively to support their language learning. More research efforts are needed to determine what sort of training is needed and how it should be carried out. More research is needed to look at whether the same pattern holds for different cultural contexts and different student populations. The main limitation of this study is the lack of qualitative data elaborating on participants' thoughts and experiences on the pros and cons of utilizing ICT for out of class learning. The further research is encouraged to triangulate the data with the language teachers and parents for various levels of language learners including K12 for whom there are plenty of ICT resources to be used in language learning.

References

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.

Bandura, A. (2001). Social cognitive theory: And angetic. *Annual Review of Psychology,* 541, 1-26.

Beltran, D.O., Das, K.K., and Fairlie, R.W. (2006). Do home computers improve educational outcomes? Evidence from matched current population surveys and the national longitudinal survey of youth 1997. *IZA Discussion Paper No. 1912*. Bonn, Germany: IZA.

Benson, P. (2006). Autonomy in language teaching and learning. *Language Teaching*, 40, 21–40.

Bernacki, M.L., Aguilar, A.C., and Byrnes, J.P. (2011). Self-regulated learning and technology enhanced learning environments: An opportunity-propensity analysis. In Dettori, G., and Persico, D. (Eds.), *Fostering self-regulated learning through ICT*. pp. 1-26. doi:10.4018/978-1-61692-901-5.ch001

Boekaerts, M. (1999). Self-regulated learning: Where are we today. *International Journal of Educational Research,* 31, 445-457.

Carneiro, R., Lefrere, P., and Steffens, K. Eds. (2007). *Self-regulated learning in technology enhanced learning environments: A European review*. UK: Kaleidoscope Network of Excellence. Retrieved from http://telearn.noe-kaleidoscope.org/

Chang, M. M., and Wu, Y. M. (2003). EFL learners' self-efficacy and strategies use in a web-based learning environment. *Proceedings of the 2003 International*

Conference on English Teaching and Learning in the Republic of China, Taiwan, ROC,117 – 125. Taiwan, Province University.

Dickinson, L. (1987). *Self-instruction in language learning*. Cambridge: Cambridge University Press.

Dorney, Z. (2001). *Motivational strategies in the language classroom*. Cambridge: Cambridge University Press.

Ducate, L., and Arnold, N. (2006). *Calling on CALL: From theory and research to new directions in foreign language teaching*. San Marcos, TX: Computer Assisted Language Instruction Consortium.

Ehrman, M. E., Leaver, B., and Oxford, R. L. (2003). A brief overview of individual differences in second language learning. *System*, *31*, 313 -330.

Ellis, R. (2008). *The study of second language acquisition*. Oxford University Press. ISBN 978-0-19-442257-4.

Ertmer, P.A., Newby, T.J., and MacDougall, M. (1996). Students' approaches to learning from case-based instruction: The role of reflective self-regulation. *American Educational Research Journal*, 333, 719-752.

Ewald, J. (2004). A classroom forum on small group work: Learners see and change themselves. *Language Awareness*, 12, 163–79.

Finch, A. (2001). Autonomy: Where are we? Where are we going? *Presentation at the JALT CUE Conference on Autonomy.* Retrieved from http://www.finchpark.com/arts/autonomy/

Freeman, M. (1999). The language learning activities of students of EFL and French at two universities. *Language Learning Journal, 19*, 80-88.

Gale L.E. (1991). Macario, montevidisco, and interactive digame: developing interactive video for language instruction. In W.F. Smith (Ed.), *Modern technology in foreign language education: Applications and projects*, pp. 235–249. Lincolnwood, IL: National Textbook Company.

Gao, X.S. (2009). The 'English corner' as an out-of-class learning activity. *ELT Journal*, 63, 60–67.

Garcia, T., and Pintrich, P. R. (1994). Regulating motivation and cognition in the classroom: The role of self-schemas and self-regulatory strategies. In D. H. Schunk and B. J. Zimmerman, (Eds.), *Self-regulation of learning and*

performance: Issues and educational applications, pp. 127-154. Hillsdale, NJ: Erlbaum. Accessed on 31.10.2005

Hannafin, M.J., and Hannafin, K.M. (2010). Cognition and student-centered, web-based learning: Issues and implications for research and theory. In J.M. Spector, D. Ifenthaler, P. Isaias, and K. Sampson (Eds.), *Learning and instruction in the digital age* pp. 11–23. New York: Springer Science Business Media.

Healey, D. (2002). Learner Autonomy with technology: What do language learners need to be successful? *TESOL 2002, CALL-IS Academic Session*. http://oregonstate.edu/~healeyd/tesol2002/autonomypres-withbiblio.doclast accessed on 31.10.2005

Hofer, B., Yu, S., and Pintrich, P. (1998). Teaching college students to be self-regulated learners. In D. Schunk and B. Zimmerman (Ed.), *Self-regulated learners: From teaching to self-reflective practice,* pp. 57-85. New York: Guilford.

Holec, H. (1981). *Autonomy and foreign language learning*. Oxford: Pergamon.

Hussein, G. (2010). The attitudes of undergraduate students towards motivation and technology in a foreign language classroom. *International Journal of Learning and Teaching*, 2 (2), 14-24.

Lacey, F. (2007). Autonomy, never, never, never! *Independence, 42,* 4-8.

Lai, C., and Gu, M. (2011). Self-regulated out-of-class language learning with technology, *Computer Assisted Language Learning*, 24 (4), 317-335.

Lam, W.S.E. (2000). Second language literacy and the design of the self: A case study of a teenager writing on the Internet. *TESOL Quarterly*, 34, 457–482.

Lam, W.S.E. (2004). Second language socialization in a bilingual chat room: Global and local considerations. *Language Learning and Technology*, 8, 44–65.

Lamb, M. (2007). The impact of school on EFL learning motivation: An Indonesian case study. *TESOL Quarterly*, 41, 757–780.

Leaver, B.L., Ehrman, M., and Shekhtman, B. (2005). *Achieving success in second language acquisition.* Cambridge, UK: Cambridge University Press.

Little, D. (2000). Learner autonomy and human interdependence: some theoretical and practical consequences of a social-interactive view of cognition, learning and language. In B. Sinclair, I. McGrath and T. Lamb (Eds.), *Learner autonomy,*

teacher atonomy: Future directions, pp. 15-23. Harlow: Longman/Pearson Education.

Lindner, R. W., and Harris, B.R. (1998. Self-regulated learning in education majors. *Journal of General Education*, 47(1), 63-78.

Lortie, D. (1975). *Schoolteacher: A sociological study*. Chicago: University of Chicago Press.

Peñaflorida, A. H. (2002). Nontraditional forms of assessment and response to student writing: A step toward learner autonomy. In Richards, Jack C. and Willy A. Renandya (Eds.), *Methodology in language teaching. An anthology of current practice*, pp. 344-353. Cambridge: Cambridge University Press.

Serin, O. (2012). Mobile learning perceptions of the prospective teachers (Turkish Republic of Northern Cyprus sampling). *The Turkish Online Journal of educational technology- TOJET*, Volume 11, Issue 3.

Steffens, K. (2006). Self-regulated learning in technology-enhanced learning environments: Lessons of a European peer review. *European Journal of Education, 41*, 353–379.

Thorne, S., Black, R.W., and Sykes, J.M. (2009). Second language use, socialization, and learning in Internet interest communities and online gaming. *Modern Language Journal*, 93, 802–821.

Watts, M., and Lloyd, C. (2001). Evaluating a classroom multimedia programme in the teaching of literacy. *Educational Research and Evaluation* **7**, 35–52.

Weinstein, C. S. (1989). Teacher education students' preconceptions of teaching. *Journal of. Teacher Education*, 39, 53-60

Winters, F.I., Greene, J.A., & Costich, C.M. (2008). Self-regulation of learning within computer-based learning environments: A critical analysis. *Educational Psychology Review*, 20, 429–444.

Winke, P., & Goertler, S. (2008). Did we forget someone? Students' computer access and literacy for CALL. *CALICO Journal*, 25, 482–509.

Yıldırım, Ö. (2008). Turkish EFL learners' readiness for learner autonomy. *Journal of Language and Linguistic Studies*, 4 (1), 65-80.

Zehir Topkaya, E. (2010). Pre-service English language teachers' perceptions of computer self-efficacy and general self-efficacy. *The Turkish Online Journal of educational technology- TOJET*, 9(1).

Zhang, G.M. (2010). Technology uses in creating second language learning environments: When learners are creators. *Unpublished doctoral dissertation.* Michigan State University, Michigan.

Zhao, Y. (2003). Recent developments in technology and language learning: A literature review and meta-analysis. *CALICO Journal*, 211, 7–28.

Zhao, Y., and Lai, C. (2007). Technology and second language learning: Promises and problems. In L.L. Parker (Ed.), *Technology-mediated learning environments for young English learners: Connections in and out of school* pp. 167–205. Mahwah, NJ: Lawrence Erlbaum Associates.

Zimmerman, B. J. (1995). Self-regulation involves more than metacognition: A social cognitive perspective. *Educational Psychologist*, 30, 217-221.

Zimmerman, B.J. (2000). Attaining self-regulation: A social cognitive perspective. In M. Boekaerts, P.R. Pintrich, and M. Zeidner Eds., *Handbook of self-regulation: Theory, research, and applications* pp. 13–39. San Diego, CA: Academic Press.

Serkan Çelik got an MA degree from Bilkent University TEFL program and holds a Ph.D from Computer Education and Instructional Technologies department of Ankara University, Faculty of Educational Sciences in Turkey. He worked as a teaching fellow at Boston University in USA. He is currently employed at Kirikkale University as an assistant professor. His research interests are instructional design theory, technology enhanced learning, applied linguistics, and language pedagogy.

Erkan Arkın has been teaching at the Eastern Mediterranean University for 14 years. He has taught both at the ELT department, Faculty of Education and the School of Foreign Languages . His areas of interest are researching Content and Language Integrated Learning (CLIL) at higher education and ICT integration into language instruction.

Derya Sabriler has been teaching at the Eastern Mediterranean University for 13 years. She has taught both at the ELT department, Faculty of Education and the School of Foreign Languages . Her area of interest is ICT integration into language instruction.

Yabancı Dil olarak İngilizce Öğrenen Öğrencilerin Öz-düzenleyici Öğrenme Amaçlı Bilgi ve İletişim Teknolojileri Kullanımları

Özet

Araştırma Konusu: Bu çalışma öğrencilerin bilgi ve iletişim teknolojilerini öz-düzenleyici öğrenme amaçlı kullanım boyutlarını ele almaktadır.

Araştırmanın Amacı: öğrencilerin bilgi ve iletişim teknolojilerini öz-düzenleyici öğrenme amaçlı kullanım unsurlarını dil öğretimi açısından incelemeyi amaçlamaktadır

Araştırma Yöntemi: Çalışmanın katılımcıları Kuzey Kıbrıs Türk Cumhuriyetinde (KKTC) bulunan Doğu Akdeniz Üniversitesi hazırlık sınıflarında yoğunlaştırılmış yabancı dil eğitimi alan 399 öğrenciden oluşmaktadır. Çalışmada veriler, öğrencilerin demografik özelliklerini, dil öğrenim deneyimlerini ve öz-düzenleyici öğrenme amaçlı bilgi ve iletişim teknolojilerini kullanımlarını sorgulayan Likert tipi sorulardan oluşan bir anket formu ile elde edilmiştir. Verilerin çözümlenme sürecinde tanımlayıcı istatistiklerden, ki-kare ve t-testlerinden yararlanılmıştır.

Bulgular: Çalışmanın sonuçları öz-düzenleyici öğrenme amaçlı bilgi ve iletişim teknolojilerini kullanmada öğrencilerin cinsiyet ve dil öğrenim düzeylerinin herhangi bir farklılaşmaya neden olmadığını ortaya koymaktadır.

Sonuç ve Öneriler: Sonuçlar, yabancı dil öğrencilerinin öz-düzenleyici öğrenme sağlamak için bilgi ve iletişim teknolojilerinden en fazla yararlandıkları dil becerilerinin dinleme, sözcük bilgisi ve yazma olduğunu göstermektedir. Çalışmanın bir diğer önemli çıkarımı ise, bilgi ve iletişim teknolojilerinin yabancı dil eğitiminde öz-düzenleyici öğrenme fırsatı oluşturmak için kullanımı ile ilgili öğrenci ve öğretmenlere eğitim verilmesi gerekliliğidir.

*Anahtar Kelimeler***:** İngilizcenin yabancı dil olarak öğretimi, bilgi ve iletişim teknolojileri, teknolojiyle destekli dil öğretimi, öz düzenleyici öğrenme.