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The Impact of CALL on Iranian EFL Learners' Autonomy

Asieh Farivar^{a*}, Ali Rahimi^b

^aIslamic Azad University, Bandar Abbas Branch, Iran

^bBangkok University, Bangkok, Thailand

Abstract

This study was an attempt to investigate the impact of Computer Assisted Language Learning (CALL) on Iranian EFL learner's autonomy. To this end, 60 students were selected from a language institute in Tehran. They were then divided into control and experimental groups. A Cambridge ESOL Preliminary Test (PET) was administered to the participants to guarantee their homogeneity. The administration of a proficiency test showed that the two groups were homogeneous in terms of their knowledge of general English. Data was obtained by means of a five-scale Likert questionnaire and analyzed using ANCOVA on SPSS 18.0. The method employed in this research was a quasi-experimental (Nonequivalent Comparison) with pretest and posttest. While both groups were taught by the same instructor and both used the same materials during 20 sessions, English software (BBC Courses) was added to the materials for participants in the experimental group. The findings of this study revealed that the application of CALL had a significant effect on the improvement of students' autonomy. Therefore, CALL appeared to be useful in developing autonomy of EFL learners. The findings of this study carry important implications for foreign language syllabus designers, curriculum planners and language instructors.

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1. Introduction

Nowadays, there is no doubt about the role of the new technologies in education. In recent years, computer-assisted language learning (CALL) has received a great deal of attention. Computers have been used in many different settings and forms in order to provide assistance to language learners. CALL is a field related closely to other areas of study within applied linguistics such as autonomy in language learning, as well as to the teaching of

* Asieh Farivar Tel: +56739872643

E-mail address: asieh_fr2000@yahoo.com

particular language skills (Beatty, 2003).

(Schmenk, 2005) believes that autonomy is often associated with a technological perspective such as computer-assisted language learning (CALL) as well as self-access language centers. (Cotterall, 1998) refers to technology as a critical dimension in implementing learner autonomy. With a specific reference to CALL, (Benson, 2001, p.140) concedes the potential of technology to provide learners with the necessary skills associated with autonomy. He also warns that “ a great deal depends on the ways in which technologies are made available to learners and the kind of interaction that takes place around them.”

(Smith, 2004) believes that computer technology can provide the student with the means to control his or her own learning, to construct meaning and to evaluate and monitor his or her own performance. According to Bruce (1993), the computer will modify the nature of learning by substituting the control of learning more in the hands of the learner in other words it is more learner-centered. (Hashemi and Aziznezhad, 2011) also stated that one of the big advantages of CALL is that it helps to generate autonomous learners. Self-directed learning can cater to different individual needs, learning styles, learning strategies, and even personalities of students. If it is possible, the CALL mode definitely leads to the promotion of self-directed learning.

Most students in different levels of education are dependent on teachers in the classrooms and there is not any opportunity for students to control their own learning. Very seldom the students get the information themselves as most of the time it was the teachers who provide all the information. There is a need for students to take responsibilities for their own learning. It is therefore important to help students become aware of the value of independent learning outside the classroom, so that they acquire the habit of learning continuously, and maintain it after they have completed their formal studies.

The present study was designed to investigate the effectiveness of CALL in developing autonomy of Iranian EFL learners in comparison to the traditional instruction. Therefore, this study sought to answer the following question:

- Does the use of CALL have any effect on students’ autonomy in English language learning?

2. Selected Studies on CALL and Autonomy

The shift of responsibility from teachers to learners is generally referred to as ‘learner autonomy’ despite the fact that there are a number of different labels related to this concept (Cotterall & Crabbe, 1999, p. 3). In order to understand this concept well, educators and linguistics have tried to define the concept in different ways as followed: "It is the ability to take charge of one's own learning (Holec, 1981, p.3)", "It is the capacity to take control of one's own learning (Benson, 2001, p. 47).", "It is learners' ability and willingness to make choices independently (Little, 1996, p. 97).", "It is the capacity for a certain range of highly explicit behavior that embraces both the process and the content of learning (Cotterall & Crabbe, 1999, p. 11).", and "It is a capacity and willingness to act independently and in cooperation with others as a social, responsible person (Dam et al., 1990, p. 102)." The main gist of all the definitions is the same: learners build knowledge on their own and each learner brings his/her own experience and world knowledge to bear on the target language of task at hand (Candy, 1991, p. 270).

In a recent study, (Rahimi, Ebrahimi, and Eskandari, 2013) investigated the effects of adopting a technology-enhanced language learning framework on the students’ perceptions of their EFL classroom environment, and they found that a technology-enhanced language learning environment proved to be more efficient, learner-centered and facilitative of learning. Also in a recent study conducted by (Rahimi & Bigdeli, 2013) which investigated the effectiveness of using ICT (Information Communication Technology including internet, email, blogs, Skype, and PowerPoint in developing students’ self-regulation, it was found that using these soft wares had a significant effect on learner’s self-regulation.

(Arikan and Bakla, 2011) carried out a study on a group of Turkish university students and discovered that experience with blogging contributed to their developing autonomy. (Jarvis, 2012) observed in his study that the application of technology impacted considerably the study participants’ autonomous learning in self-study centers. They noted, however, that some features of informal learning incorporated in the project helped achieve this aim.

While Benson (2001) emphasizes that technology has the potential to foster autonomous behavior in learners because it facilitates self-access in learning, and gives learners many valuable opportunities to self-direct their learning and take control over it. Using technology-based materials gives students more responsibility for learning and can enhance their intrinsic motivation (Darasawang & Reinders, 2010).

(Rahman, 2013) conducted a research on the relationship between CALL (computer-assisted language learning) and EFL learner autonomy making the technology an effective learning tool and he resulted that CALL has a positive effect on learner autonomy if the learners perceive the tool to be a useful one. In a similar study (Meri, 2012) explored the relationship between learner autonomy and CALL in the Turkish context. The results of her study showed that CALL learning promoted students' autonomous language learning.

Some studies, however, while indicating the promises of CALL environments for fostering autonomy, also point to some of the limitations or problems associated with them. Their findings confirm (Reinders and White's, 2011) concern that computer-based learner involvement does not necessarily lead to increased responsibility for managing learning. For example, (Kaur and Sidhu, 2010) found that asynchronous online interactions through email had the potential to stimulate autonomy development in Malaysian university students, but some training in the application of optimal learning tools was needed to make the experience more effective.

3. Methodology

3. 1. Participants

A group of sixty intermediate students from Tavana Language Institute of Tehran participated in this study. The participation was voluntary and they had already enrolled in English Language Institute. They were both male and female. They shared the same linguistic and cultural background. The first language of the students were involved in this research was Persian.

3. 2. Instruments

To carry out this study, two instruments were utilized. The Proficiency test is to measure the participants' Knowledge of general English. It was administered to the participants to ensure their homogeneity. Another instrument was a questionnaire. As a pre-test and post-test, the researcher applied a Learner Autonomy Questionnaire developed by (Zhang and Li, 2004, p. 23), which covered 21 questions. It was administered to investigate learners' autonomy.

3. 3. Research design

The study focused on following question:

- Does the use of CALL have any effect on students' autonomy in English language learning?

The study involved an independent variable and a dependent variable. The independent variable was CALL and the dependent variable was autonomy of the participants. This study was a quasi-experimental research and the specific design was Non-equivalent Comparison Groups with pre-test and post-test (Best & Kahn, 2006). The schematic representation of the design is shown as follows:

The quasi-experimental design:

O1 X O2

O1 O2

O1= Pre-test

O2= Post-test

X = Treatment

3. 4. Procedure

To carry out the study, at first, a Cambridge ESOL Preliminary Test (PET) was administered to the participants to determine homogeneity of them to be intermediate level. Then the participants were divided into two groups of the experimental and the control. As a pre-test a questionnaire was administered to the participants of both groups at the beginning of the study. Treatment was including the English software of BBC Courses (documentary movies

including practical vocabulary) for experimental group and control group doesn't have such a treatment with computer. They used traditional method (course book, classroom discussion, classroom activities). At the last session both groups were given the same questionnaire as the post test. The study was carried out for 20 sessions.

3. 5. Data analysis

The data were collected through a questionnaire which aimed to investigate learners' autonomy. After collecting the data it needs to be analyzed. To turn the subjects' choices in the questionnaire into the scores the researcher used the Likert-scale. The scores from A to E were respectively 1, 2, 3, 4, and 5. The data were analyzed descriptively using mean and standard deviation. In trying to accept or reject the null hypothesis, the researcher employed ANCOVA. The statistical analysis was performed using SPSS software.

4. Results of the Data Analysis

This part presents the descriptive statistics and analysis of the results of the questionnaire. Learner Autonomy Questionnaire developed by Zhang and Li (2004, p.23), which covered 21question was distributed. Reliability of this questionnaire was proved as shown in table 1.

Table 1. Reliability of the Questionnaire

questionnaire *	
Cronbach's α	0.751
Mean	3.223

* (N = 30)

To turn the subjects' choices in the questionnaire into the scores the researcher will use the Likert-scale. The scores from A to E are respectively 1, 2, 3, 4 and 5. The statistical analysis will be performed using SPSS software.

Table 2. Between-Subjects Factors

	Value Label	N
Group1	Experimental	24
	Control	26
Group 2		

Here the researcher estimated the statistical descriptive of the scores as shown in Table 3.

Table 3. Descriptive Statistics

Dependent Variable: Posttest			
Group	Mean	Std. Deviation	N
Experimental	35.9697	2.35586	24
Control	32.6049	3.10205	26
Total	34.2200	2.72895	50

As can be seen in Table 3, the mean score of the experimental group (35.96) is higher than the control group

(32.60).

The researcher conducted an ANCOVA analysis to answer the research question. The results are presented in Table 4. Computing ANCOVA as you can see from Table 4, it showed that experimental group's gain was statistically significant. Table

ANCOVA Comparison of Two Groups Scores					
Dependent Variable: Posttest					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1119.541 ^a	2	559.770	67.629	.000
Intercept	38.86	1	38.862	4.695	.035
Pre-test	978.243	1	978.243	118.187	.000
Group	99.834	1	99.834	12.062	.001
Error	389.023	47	8.277		
Total	60058.983	50			
Corrected Total	1508.563	49			

a. R Squared = .742 (Adjusted R Squared = .731)

Analysis of the results revealed that application of CALL had a significant main effect ($F= 12.06$, $df=1$, $A<0.05$) on the improvement of students' autonomy. The results also indicated that the administration of a pretest had a significant minor effect ($F= 118.187$, $df=1$, $A<0.05$) on the improvement of students' autonomy.

The main determining factor for the effectiveness of the treatment in this research was the difference between the performance of the experimental group and the control group on the questionnaire (as a posttest). Results showed that the experimental group with a mean of 35.96 did outperform the control group with the mean of 32.60. It could be concluded that the treatment given to the experimental group had a positive impact on enhancing the students' autonomy. Table 4 clearly shows that use of CALL has positive effect on students' autonomy in learning language. The above analysis indicates that CALL can have a positive impact on learner autonomy. The findings confirm that learner autonomy has a definite positive effect on EFL learners and allows language learners to learn more effectively.

5. Conclusion

In order to answer the research question of the study, the following null hypothesis was formed.

- Use of CALL does not have any effect on students' autonomy in English language learning.

Based on the data, the effectiveness of the treatment was confirmed. Results indicated that the experimental group performed higher than the control group on posttest. This means that the very implementation of computer assisted language learning helped the experimental group autonomy better than the control group; thus, the hypothesis that there is not any significant difference between the mean scores of the group taught using CALL-based methods and the group taught using traditional methods disconfirmed.

The present study agrees with the study conducted by Mustafizur Rahman (2013) that CALL has a positive effect on learner autonomy if the learners perceive the tool to be a useful one. This study also agrees with the findings of the study done by Meri (2012) who explored the relationship between learner autonomy and CALL in the Turkish context. Findings indicate that CALL promotes learner autonomy. Rahimi, Ebrahimi, and Eskandari (2013) who investigated the effects of adopting a technology-enhanced language learning framework on the students' perceptions of their EFL classroom environment, and they found that a technology-enhanced language learning environment proved to be more efficient, learner-centered and facilitative of learning. In another study, Hafner and Miller (2011) recorded enhanced autonomous learning capacities in Hong Kong university students of Science as a result of their taking part in a digital video project.

Learners become more independent when they have access to other sources of language knowledge, such as CALL materials. In this situation, the teachers should reconsider the language methodologies and bravely step down from the platform to the learners' computer station. They need to give learners useful guidance for their self-directed learning, help them to develop their self-directed learning strategies, and train them to be real autonomous learners. Teachers should try to develop the opportunity offered by the rapid development of the computer technologies to its greatest extent, fully exploring the potentials of CALL on enhancing self-directed learning environments and further promoting the development of learner autonomy.

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