

ENHANCING READING COMPREHENSION AND MOTIVATION BY USING A MODE OF MULTIMEDIA (CALL) ON POST INTERMEDIATE EFL LEARNERS

Seyyed Mohammad Reza Adel (Corresponding author)

*Assistant Professor, Department of English Language, Faculty of Literature and Humanities,
Hakim Sabzevari University, Sabzevar, Iran
Email: sm.adel@hsu.ac.ir (also, adelzero@yahoo.co.uk)*

Mohammad Davoudi

*Assistant Professor, Department of English Language, Faculty of Literature and Humanities,
Hakim Sabzevari University, Sabzevar, Iran
E-mail: davoudi2100@yahoo.com*

Minoo Pourfarhad

*PhD Student, Department of English Language, Faculty of Literature and Humanities, Hakim
Sabzevari University, Sabzevar, Iran
Email: m.pourfarhad@iaut.ac.ir*

ABSTRACT

In this cyber age the request for the application of the modes of multimedia in educational setting is inevitable. According to Jayachandran (2007) "the invasion of the electronic media has revolutionized language teaching methodology." This research investigated the effectiveness of Computer Assisted Language Learning CALL as a type of multimedia in enhancing Iranian learners' reading comprehension and motivation. Forty Iranian learners participated in this study. They were randomly assigned as two experimental and control groups. Participants in the control group were in a traditional class setting with the paper based and printed texts, while the experimental group were told to use computer in the language lab during treatment sessions. According to data analysis and statistical results, the experimental group outperformed the control group regarding their post-test reading comprehension scores. Moreover, CALL as a device could motivate students and enhanced their motivation to do their tasks eagerly. There is a need for a fundamental reform in the English education curriculum at several levels to combine computer technology as an integral part of English classes.

KEYWORDS: Computer Assisted Language Learning, Reading comprehension, Motivation, Media

INTRODUCTION

History and Phases of CALL

Reputation of CALL started from the mid-1960s to mid-1990s in North America (Sanders, 1995). Butler-Pascoe (2011) looked at record of CALL from varied perspectives, both in arenas of educational technology and foreign/second language acquisition and the paradigm shifts experienced along the way. With a brief look on history of CALL, computer has diverse uses for language teaching. Computer could operate such as a trainer which gave language drills or practices, as a motivation for discussion and interaction or a gadget for reading, writing and research.

Warshauer and Healy (1998) established three pedagogical phases based on pedagogical and methodological approaches:

From 1960s to 1970s, drill and practice materials were more common. In this period, the computer offered a stimulus and the learner gave a response. Only texts were used in these events. The practice of evaluating the learner's input and giving feed back were done by the computer. As mentioned by Taylor (1980) the computer was considered as a tutor and as a medium for giving instructional material to the student. This period was named Behavioristic CALL. From 1970s-1980s, the focus of this phase was more on language use rather than analysis of language and teaching grammar implicitly rather than explicitly. Above all this period permitted creativity and flexibility regarding learner's language production. CALL programs focus more on skill practice rather than drill format. This phase was mainly based on communicative approach and was named Communicative CALL.

In 1990s, the integration of teaching language skills into tasks in order to establish direction and coherence was a noticeable change. It occurred with the development of multimedia technology along with computer-mediated technology. According to Warschauer (1996) "Integrative approaches to CALL were based on two main technological developments: multimedia computers and internet (text, graphics, sound, animation and video). What makes multimedia even more powerful was that it also involved Hypermedia." This phase was named Integrative CALL.

Interrelation and interconnection of media sources in which learners can find all the information just by clicking a mouse, called Hypermedia. Of merits and advantages of Hypermedia were real learning environment, incorporation of skills (media makes it natural to combine reading, writing, speaking and listening in a single activity), and learners' control over their learning and finally focus on the content along with secondary focus on language or learning strategies. As a result in contrast with traditional methods of language teaching, teacher as transmitter of knowledge and learners as passive recipient of these knowledge, up-to-date styles focus on learner autonomy, learner participation, learner generated syllabi, establishing of relaxed and stress free atmosphere for learning and need-based learning.

CALL and Its Effect on Education and Motivation

In this cyber age computer based instruction as a mode of multimedia has an utmost importance in teaching and learning processes. According to Jayachandran (2007, 3), Computers were effecting fundamental changes not only in the society outside the classroom walls but also within them. The invasion of the electronic media has revolutionized language teaching methodology. (p.3) The universal reputation of technical devices and computer over past decade has brought about innovative uses of computer in foreign language learning and teaching. The rapid advance of computers has provoked excessive concern in the area of education (Mehlinger & Powers, 1995).

As mentioned by John and Torrez (2001), CALL (computer assisted language learning) as one of recent educational technologies, was a language learning and teaching approach in which the computer was used as an instrument for performance, helping students and assessing learning material. Invention of Internet, multimedia computing and World Wide Web offered unbelievable enrichment to Computer Assisted Language Learning applications. The dynamic incorporation of computers and language learning has empowered language learners to access and develop various resources and internalize information more easily and meaningfully through personal engagement.

Through interacting with multimedia programs personal computers users became active participants rather than passive participants. Multimedia permitted integration of text, graphics, audio and motion video. Communicating and interacting in real time with natural human speeches and full screen interactive videos were available for users at any time via computers (Warschauer, 2002).

For teaching and learning languages and facilitating these procedures CALL software programs were planned precisely. In spite of the availability of CALL programs on CD-ROM (Compact Disk-read only memory) and DVD, web-based multimedia CALL has now fundamentally replaced these media (Davies, 2010). CD-ROMs as valuable means for teachers and learners, multimedia and integration of text, audio and video material all in one package could be used instead of 'text-based CALL' in the past. Generally speaking, the use of technology whether inside or outside classroom setting tended to make the process of learning and teaching more interesting.

Ames and Ames, 1989 stated that Motivation was defined as the incentive to create and endure aims and goal seeking acts. It was a procedure of inspiring people to complete a task. Changing the language learning process to more motivating practice, teachers and instructors required to establish programs and planed to keep student interest and accomplished aims. The practical effects of Multimedia and technology on student motivation were done by many researchers. For example, Boster, Meyer, Roberto and Inge (2002) stated that United-streaming (standard internet based video clips) not only improved and enhanced educational performance but also influenced student motivation, commitment and concern.

One of fundamental skills that every learner must take into account is reading skill. In the process of learning a foreign language reading skill played an important role. Majority of students whether as EFL or ESL learners and readers could not perform reading at the levels required in order to succeed (Carter & Nunan, 2001). Underdeveloped facilities in classes not only steadily discouraged learners and damaged the attitudes toward reading activities but also led to emergence of disbelief in their competences as learners.

Fluent reading would be possible through heavy demands on the reader's attention and relies on automatic processes of decoding and comprehension (Carter & Nunan, 2001). Because of vast range of new vocabulary Foreign reading (L2) was most of the times slower and frustrating rather than L1 reading.

Reading in L2 or FL was a dynamic and collaborative procedure in which students use diversity of skills and strategies along with background information, first language knowledge and real-life understanding in order to get understanding of written text (Aebersold & Field, 1997). Computer Assisted Language Learning could strengthen what has been learned in the classrooms. It could also be used as remedial to help learners with constrained language proficiency (Levy, 1997). According to John and Torrez (2001) "the new technologies offer many possibilities to second language learner" (p.11) they debated that computer assisted instruction are "ideal for fostering reading and writing skills in the target language". (p.11)

Merits of CALL Regarding Reading Comprehension and Vocabulary Acquisition

The readers recreate the writer's meaning through distinguishing the letters and words, this procedure is the base of bottom-up traditional method of reading instruction. This model viewed as passive method (Carrell, 1987). In top-down model of reading the readers get meaning of the text with the use of previous knowledge. Regarding the shortcomings of both methods successful readers are those who combine these two procedures. Interactive model of reading was combination of the two models. In Interactive model first reader made predictions about the meaning of the topic, after confirming or rejecting the predictions started to decode letters or words (Anderson & Pearson, 1988).

In developing reading skills computers played significant roles. In Incidental Reading for successful completion of the activity in reading a text CALL programs were very helpful. In Reading Comprehension CALL programs also had an utmost importance. For example: improving traditional way of question and answer, grammar and vocabulary development. In text manipulation computers could deploy continuous text which involved the learner in the close study of the content and structure of the text (Warchauer & Healey, 1998).

It was noticeable that words were elements of meaning. Wit words, sentences, paragraphs and entire texts were produced. Bax (2003) indicated that Vocabulary as priority domain was very significant in language teaching. Individuals can be successful and unsuccessful in text comprehension considering their vocabulary knowledge. Regarding the important role of vocabulary knowledge, researchers investigated ideal areas to increase vocabulary learning (Laufer, 2000).

The learners learn vocabulary with the help of sounds, pictures and even video through CALL programs. Researchers' debates showed the impacts of presenting information with multimedia on FL vocabulary acquisition and learning (Akbulu, 2007; kim & Gilman, 2008).

In a study Kim and Gilman (2008) stated that information presented with visual text and graphics or with visual text along with spoken text could assist student's vocabulary acquisition. Most researchers studied the impacts of multimedia software on reading comprehension and vocabulary acquisition along with relationship between vocabulary development and reading comprehension. The mutual relationship showed the fact that researches on vocabulary development and CALL also probed reading comprehension and vice versa (Singhal, 1998). Vocabulary and reading were interrelated, fluent readers had a rich vocabulary and vividly a rich vocabulary was one of key figures that guarantee reading proficiency.

Students who used Tutorial CALL for learning high frequency words actually learned considerably great number of words in comparison with control group (Ozcu & Coady, 2004). In LeLoup and Ponterio's research (2003) which focused on CALL for improving reading skills the main emphasis was on the use of glossaries and vocabulary learning. Regarding the significant role of reading skill and students' problem whether as EFL or ESL learners in reading comprehension and lack of facilities in classes which increasingly demotivated and strengthened their disbelief in their capabilities as learners, this study investigated enhancing reading comprehension and motivation by using a mode of multimedia (CALL) on post intermediate learners.

RESEARCH QUESTIONS

In this research the following research questions were formulated:

1. Does Computer Assisted Language Learning have any effect on improving EFL learners' reading comprehension?
2. Does Computer Assisted Language Learning enhance EFL learners' motivation toward language learning?

Regarding the research questions the following Hypotheses were formulated:

H1: Computer Assisted Language Learning doesn't have any effect on improving EFL learner's reading comprehension.

H2: Computer Assisted Language Learning doesn't have any effect on enhancing EFL learner's motivation.

METHODOLOGY

Participants

The participants in this study were 60 male and female university students at Islamic Azad University of Tabriz, Iran, with an age range of 19-25. They came from a bilingual background of Turkish and Persian.

Instruments

PET Test

A Preliminary English Test (PET) (Examination papers from University of Cambridge ESOL Examinations, 2006) was administered in order to assess the initial homogeneity of 60 sophomores at Islamic Azad University of Tabriz in terms of their general proficiency. The test involved four sections. Section one consisted of 35 reading test items. Section two consisted of 5 writing test items. Section three included 25 listening test items and the last section included a speaking test in which a photo was given to each participant and they were asked to explain about the picture and to record it. The total score of the test was 70. Forty test takers as post intermediate EFL learners who obtained a score range of 60-70 were selected to form the research participants. Based on the scores they were divided into two groups of 20 participants.

Pre-Test

The pre-test used in this study was chosen from the course book's assessment test series. (Complete Assessment Package, Summit 1). The test was based on reading comprehension texts. Participants were supposed to read the text and answer the questions. The text included 14 questions both in true/false and multiple choice formats. The allotted time for the test was 30 minutes.

Post-Test

The post-test was a parallel test and it was chosen from the course book's assessment test series. Like the pre-test, participants were supposed to read the texts and answer 14 true/false questions and multiple choice questions. The allotted time for the post-test was 30 minutes.

The Motivation Questionnaire

The researchers used a standard Lickert questionnaire prepared by Pintrich, Smith, Garcia and McKeachie (1993) in order to probe the effect of CALL on the participants' motivation to language learning. The questionnaire included 50 items. Mostly the items focused on reading comprehension. Following the factor analyses, Pintrich et al. (1993, p. 806) calculated internal consistency estimates of reliability (Cronbach's alpha) and "zero-order correlations between the different motivational and cognitive scales". The majority of the Cronbach's alphas for the individual scales (9 out of 15) were fairly robust (i.e., they were greater than .70, with the largest one, self-efficacy for learning and performance, being .93).

Teaching Softwares

Learn English news through videos from VOA and Euro News (Vaez Dalili, 2011), as the software involved easy to use reading texts along with video clips, new words and exercises. During treatment sessions (15 sessions) participants were acquainted with the use of this software and the instructor helped them watch, read the texts and do the exercises. Learn to speak English series dealt with four skills. This software completely centered on multimedia and presented pictures, sounds, practice and drills. In the reading part, it presented the text with motion pictures.

Research Procedure

In this research the following steps were taken to conduct the study:

For the first step, there were two intact groups of students from whom only one group (the experimental group) was exposed to the treatment (computer assisted reading) while the other group (the control group) had a normal procedure (traditional reading). The second step was the administration of the PET test. The purpose of the PET test was to obtain measures of the participants' English proficiency for both the control and experimental groups. These measures were used to assess the two groups' homogeneity. In the third step and one week before the treatment session, a pre-test (Reading Comprehension) was administered in order to obtain the participants' reading proficiency for both the control and experimental groups. The results from the t-test indicated that there was not significance difference between the two groups. In the forth step, the motivation pre test questionnaire was administered to the participants. The researchers used this questionnaire to probe the effect of CALL on the participants' motivation toward language learning before treatment.

In the following weeks the experimental group was acquainted with the softwares and their use. These instruction sessions lasted 15 sessions. The students in the control group read texts from printed pages in normal classroom setting in 15 sessions, while the experimental group attended the training session (the treatment, 15 sessions) in which they were informed and familiarized with Computer Assisted Instruction in which they read the same texts on the computer screen with other special software facilities. The same teacher instructed for both groups with the same goal and scope.

The fifth step was the administration of the post-test. The post-test (Reading Comprehension Test) was used to determine if the treatment caused any significant difference in the performance of the experimental group compared to the control group. In the sixth step the motivation post test questionnaire was administered to the participants. (A Standard Lickert questionnaire prepared by Pintrich, Smith, Gaicia and McKeachie ,1993). The researcher used this questionnaire to probe the effect of Call on the participants' motivation toward language learning after treatment.

The last step consisted of analyzing the collected data running T-test and ANCOVA.

RESULTS AND DISCUSSION

Description of Variable

Table 1 shows Mean, standard deviation, minimum and maximum scores for both the control and experimental groups separately in the PET test, Reading pretest, Reading Post test, Motivation Pretest and Motivation Post test.

Table 1: Descriptive Statistics for PET, Pre-Test and Post-Test

	Group	N	Mean	Std. Deviation	Minimum	Maximum
PET	Control	20	64.40	3.085	60	70
	Experimental	20	63.90	3.354	60	70
	Total	40	64.15	3.191	60	70
Pre Reading	Control	20	10.55	3.471	6	16
	Experimental	20	10.80	3.172	6	16
	Total	40	10.68	3.285	6	16
Post Reading	Control	20	12.30	3.246	7	18
	Experimental	20	14.70	2.452	10	19
	Total	40	13.50	3.088	7	19
Pre Motivation	Control	20	3.8590	1.06732	2.20	5.88
	Experimental	20	3.9240	1.01495	2.42	6.00
	Total	40	3.8915	1.02856	2.20	6.00
Post Motivation	Control	20	3.9100	1.07706	2.30	6.00
	Experimental	20	4.5990	.94714	3.10	6.98
	Total	40	4.2545	1.06015	2.30	6.98

The Kolmogorov-Smirnov Test (Table 2) was used to check the normal distribution of variables' scores. Regarding the significance levels which all were bigger than 0.05, the researchers concluded that the variables' scores had a normal distribution.

Table 2: One-Sample Kolmogorov-Smirnov Test

	Group	N	Kolmogorov-Smirnov Z	Asymp. Sig. (2-tailed)
PET	Control	20	.454	.986
	Experimental	20	.735	.652
Pre Reading	Control	20	.656	.782
	Experimental	20	.669	.762
Post Reading	Control	20	.495	.967
	Experimental	20	.665	.768
Pre Motivation	Control	20	.400	.997
	Experimental	20	.537	.935
Post Motivation	Control	20	.451	.987
	Experimental	20	.506	.960

In order to assess the homogeneity of both the control and the experimental groups the researchers used Preliminary English Test (PET). And then Levene's test was run to test the equality of variances. Considering the sig = 0.63 which was bigger than 0.05 we concluded that the variances were equal (See Table 3).

Table 3 demonstrates the descriptive statistics of this test. The mean score of the experimental group was 63.90 and the mean score for the control group was 64.40. An independent t-test was run to test the significance of the difference. Results in the Table 3 illustrate that there was no significance difference between the two groups as measured by the PET test. Regarding sig = 0.626 which was bigger than 0.05, there was no significance difference between the two groups and they were homogeneous.

Table 3: Independent Sample T-Test

	Group	N	Mean	Std. Deviation	Levene's Test for Equality of Variances		t-test for Equality of Means		
					F	Sig.	t	Df	Sig.
PET	Control	20	64.40	3.085	.236	.630	.491	38	.626
	Experimental	20	63.90	3.354					

The mean score of the control group in the Reading Comprehension was 10.55 and that of the experimental group was 10.8. The significance level was 0.813 which was bigger than 0.05, meaning that there was no significance difference between the control and experimental groups regarding the reading comprehension's scores in the Pre-test (Table 3). The mean score of the control group in the Motivation questionnaire was 192.95 and that of the experimental group was 196.2. The significance level was 0.845 which was bigger than 0.05, meaning that there was no significance difference between the control and experimental groups regarding the motivation's scores in the Pre-test (Table 4).

Table 4: T-Test

	Group	N	Mean	Std. Deviation	Levene's Test for Equality of Variances		t-test for Equality of Means		
					F	Sig.	t	Df	Sig.
Pre Reading	Control	20	10.55	3.471	.419	.522	-.238	38	.813
	Experimental	20	10.80	3.172					
Pre Motivation	Control	20	192.95	53.366	.199	.658	-.197	38	.845
	Experimental	20	196.20	50.748					

Research Question One

In order to assess the effect of CALL on improving EFL learner's reading comprehension, (research question number 1) the researchers used an ANCOVA test for analyzing the covariance. The first requirement for doing test was the normality of the score distribution done by the Kolmogorov-Smirnov test. (See Table 2). Then we compared the pre-test and the post-test scores of both the control and experimental groups. Equality of variances in each group was assessed with the Levene's test. Regarding the significance level $0.121 > 0.05$ we concluded that the groups' variances were homogeneous. So the requirements of the analysis of covariance which were normal distribution of scores and homogeneity of groups' variances were obtained (Table 5).

Table. 5: Levene's Test of Equality of Error Variances

Dependent Variable: Reading post			
F	df1	df2	Sig.
2.518	1	38	.121

The results of the analysis of covariance indicated that there was a significance difference between the control and experimental groups regarding reading comprehension. The significance level (sig = 000) was smaller than 0.05 (See Table 6), so the first null hypothesis was rejected. Therefore it can be stated that CALL could enhance EFL learners' reading comprehension and the positive impact of CALL on subjects' reading comprehension skill was confirmed.

The Eta square (See Table 6) shows the extent of change and it must be a number within zero and one. If the number of eta squared be closer to one, the extent of effect will be bigger. The eta squared for the post-test was 0.867 and for the group was 0.537 . So (eta)² of post test was bigger than (eta)² of the group and it was closer to one (Table 6).

Table 6: Dependent Variable: Reading Post

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Squared	Eta
Post Reading	272.717	1	272.717	242.08	.000	.867	
Group	48.266	1	48.266	42.844	.000	.537	
Error	41.683	37	1.127				
Total	7662.000	40					

Table 7: Means of Two Groups in Reading Post

Dependent Variable: Reading post				
Group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Control	12.401 ^a	.237	11.920	12.882
Experimental	14.599 ^a	.237	14.118	15.080

a. Covariates appearing in the model are evaluated at the following values: Reading pre = 10.68.

(Table 7) shows the mean of experimental group 14.599 which is higher than that of control group 12.401. Regarding the mean scores in both the Pre Reading and Post Reading tests, the mean scores of Post Reading for the experimental group have considerably been increased. This difference can be seen vividly in the Figure 1.

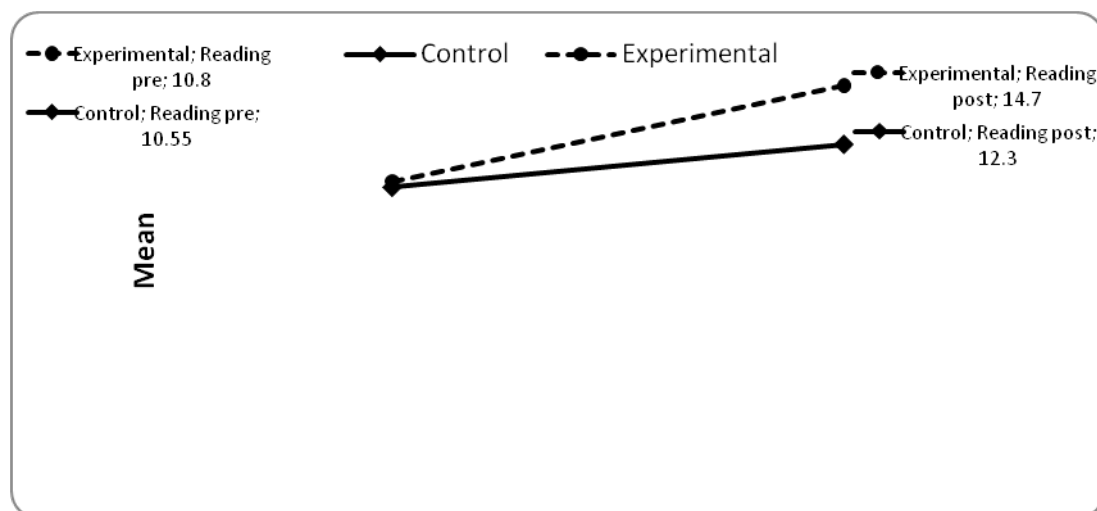


Figure 1: Reading Comprehension Mean Scores of The Two Groups

Research Question Two

In order to assess the effect of CALL on enhancing EFL learner's motivation, the researchers used an ANCOVA test for analyzing the covariance for the second research question. Equality of variances in each group was assessed with Levene's test. Regarding the significance level $0.064 > 0.05$, the researchers concluded that the groups' variances were homogeneous. So the requirements of the analysis of covariance which were normal distribution of scores and homogeneity of groups' variances were obtained (Table 8).

Table 8: Levene's Test of Equality of Error Variances

Dependent Variable: Motivation Post				
F	df1	df2	Sig.	
.513	5	18	.064	.

The results of the analysis of covariances indicated that there was a significance difference between the control and experimental groups considering the motivation variable. The significance level (sig = .000) was smaller than 0.05, so the researchers could reject the Null hypothesis. CALL could enhance EFL learner's motivation or in other words using CALL motivated EFL learners in language learning.

The Eta squared for the post-test was 0.918 and for the group was 0.55 . So Eta squared of post-test was bigger than Eta squared of the group and was closer to 1. Therefore the extent of effect was bigger and considerable (See Table 9).

Table 9: Dependent Variable: Motivation Post

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Squared	Eta
Motivation Post	35.863	1	35.863	411.71	.000	.918	
Group	3.944	1	3.944	45.283	.000	.550	
Error	3.223	37	.087				
Total	767.864	40					

Regarding the mean scores the experimental group outperformed control group in Motivation post-test (Table 10).

Table 10: Mean Scores of Motivation Post

Dependent Variable: Motivation post				
Group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Control	3.940 ^a	.066	3.807	4.074
Experimental	4.569 ^a	.066	4.435	4.702

a. Covariates appearing in the model are evaluated at the following values: Motivation pre = 3.8915.

According to the mean scores in pre motivation and post motivation in figure 2, it can be seen that the mean scores of the experimental group have considerably been increased.

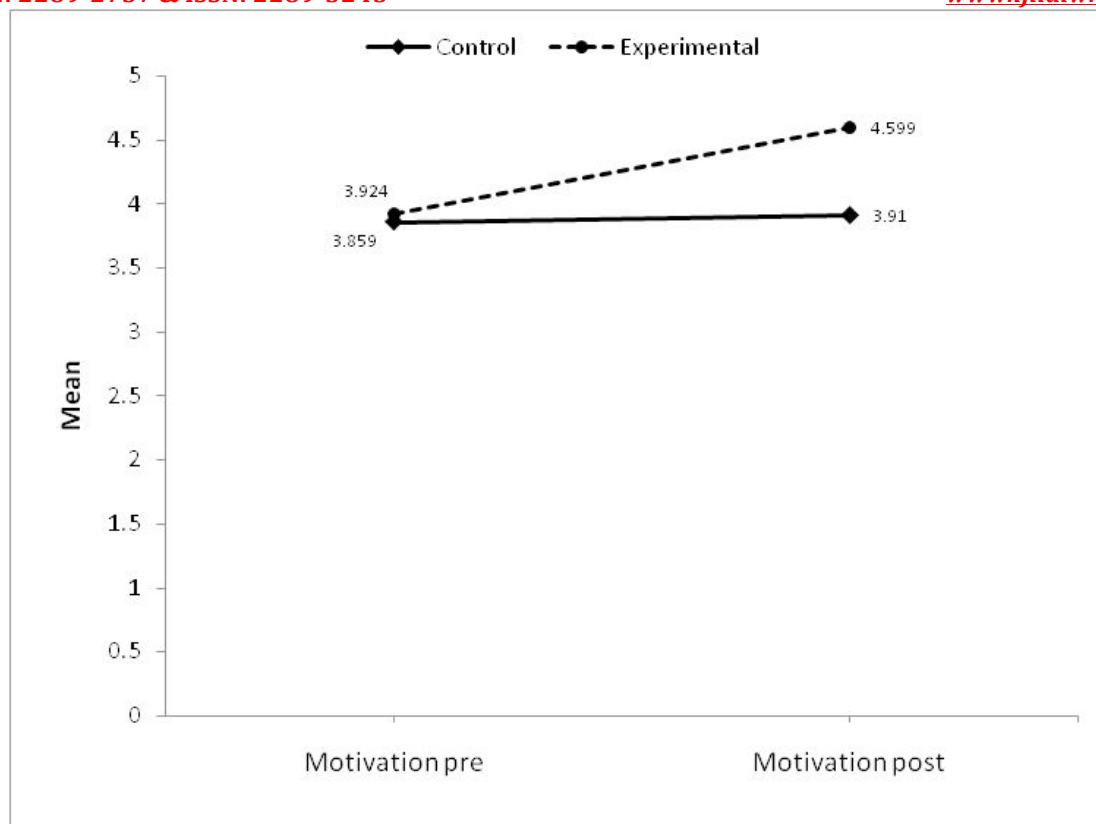


Figure 2: Motivation Means Scores of Two Groups

CONCLUSION

The purpose of this research was to investigate the effect of using CALL on enhancing reading comprehension and motivation. The findings of this study indicated that computer had a significant role on the improvement of EFL learners' reading comprehension and were in line with Pederson (1988, cited in Levy, 1997) who indicated that CALL could encourage the development of language learning skills and result in more learning. Also the results are in line with John and Torrez (2001) research that highlighted the possibilities for second language learning offered by new technological devices and Sivín-Kachala and Bioalo (2000) showed positive helpfulness of technology when students were involved in teaching reading environments.

Considering the impact of CALL on participants' motivation, the results of this research revealed a meaningful increase in the experimental group's motivation level compared to the control group's motivation level. Because of the attractiveness of technological devices and software programs, participants might have been highly motivated. These findings were in line with Jakobsdottir and Hooper (1995) results who stated that while computers read a text aloud, it leads to improvement of listening skill and the enhancing of motivation. Computers can also establish authentic input. Oxford (2006) also proposed that implication of authentic tasks could

increase the learner's motivation for participation in classroom and task-based activities. Another research by Guariento and Morely (2001) indicated that authentic materials maintain and increase learners' motivation because they give the learners a feeling that they are learning real language. Regarding different roles of computers in and out of class, computers were most exciting and potentially valuable aids available to language learners and teachers. As a mechanical device, computers can be used in different ways. Hence without cautious choice and preparation of materials, careful planning, classroom controlling and training of both learners and teachers, computers may not be very useful. In this way teachers can play utmost roles in the integration of computer into the lesson plan.

Pedagogical Implications and Suggestions for Further Studies

Findings of this research have a number of pedagogical implications. Regarding the positive effect of CALL on enhancing reading comprehension and motivation, lesson planners, instructors, researchers, teachers and above all language learners can consider CALL as a significant factor for improving all micro and macro skills. Technological and pedagogical improvements and new outlook on language teaching and learning propose the necessity for a fundamental reform in the English education curriculum at several levels to combine computer technology as an integral part of English classes.

Computers as remarkable problem solving and novel tools with varieties of software programs and internet facilities are significant devices that trainers and educators must integrate these instruments in teaching syllabuses. They are recommended to consider what the computer industry offers for classrooms and should subsequently pursue the necessary training to use them professionally. Teacher trainers should feel the critical necessity to explain novice teachers with several applications of computers in language classroom. CALL motivates language learners. Through getting involved in CALL learners have the chance to choose their preferred topics, activities and resources in comparison with traditional and formal teaching context. Therefore these kinds of teaching and training help learners become autonomous in their use of computer and internet based subjects. Our study focused on the reading skill and other researchers can expand this study to other skills and components of language. Researchers can develop their research in different levels with more participants and can employ other technological devices such as mobile and tablet to develop and improve their learners' skills.

REFERENCES

- Aebersold, J. A., & Field, M. L. (1997). *From reader to reading teacher: Issues and strategies for second language classrooms*. Cambridge, UK: Cambridge University Press.
- Akbulut, Y. (2007). Effects of multimedia annotations on incidental vocabulary and reading comprehension of advanced learners of English as a foreign language. *Instructional Science*, 35, 499-517.
- Ames, C., & Ames, R. (1989). *Research in motivation in education*. San Diego: Academic Press.
- Anderson, T., & Pearson, P. D. (1988). A schematic-theoretic view of basic processes in reading comprehension. In P. Carrell, J. Devine, & D. Eskey (Eds.), *Interactive approaches to second language reading* (pp. 37-55). Cambridge, UK: Cambridge UP.

- Bax, S. (2003). CALL, past, present, future, *System*, 31, 13-28.
- Boster, F. J, Meyer, G. S., Roberto, A. J., & Inge, C. C. (2002). *A Report on the effect of the united streaming application on educational performance*. Retrieved April 28, 2013, from United Learning Discovery Education at: <http://www.unitedlearning.com/images/streaming/evaluation.pdf>.
- Butler-Pascoe. M. E. (2011). The history of CALL: The intertwining paths of technology and second/foreign language teaching. *International Journal of Computer- Assisted Language Learning and Teaching (IJCALLT)*, 1, 16-32. Retrieved June 30, 2013 from <http://www.igi-global.com/ijcallt>.
- Carell, B. (1987). CALL media digital technology: Whiter in the new millennium. *CALICO Journal*, 2 (3), 13-19.
- Carter, R., & Nunan, D. (2001). *The Cambridge guide to teaching English to speakers of other languages*. Cambridge University Press.
- Davies G. (2010). Retrieved June 11, 2013, *from Gaham Davies Favorite websites*.
- Guarentio, W., & Morely, J. (2001). Text and task authenticity in the EFL classroom. *ELT Journal*, 55 (4), 347-359.
- Jakobsdottir, S., & Hooper, S. (1995). Computer assisted foreign language learning: Effects of text, context and gender on listening comprehension and motivation. *Educational technology research and development*, 43 (4), 43-59.
- Jayachandran, J. (2007). Computer Assisted Language Learning (CALL) as a method to develop study skills in students of engineering and technology at the tertiary level. *The Indian Review of World Literature in English*, 3 (2), 1-7.
- John, K. M., & Torrez, N. M. (2001). Helping ESL learners succeed. *Phi Delta Kappa*, 484, 749.
- Kim, D., & Gilman, D.A. (2008). Effects of text, audio and graphic aids in multimedia instruction for vocabulary learning. *Educational Technology & Society*, 11 (3), 114-126.
- Laufer, K. (2000). *Techniques and Resources in Teaching Reading*. Cambridge American English.
- Leloup J., & Ponterio R. (2003). Interactive and multimedia techniques in online language lessons: A sampler language learning & technology 7, 3. Retrieved April 12, 2013 from [http://llt.msu.edu/Vol 7, No. 3./ net/default.html](http://llt.msu.edu/Vol%207/No%203/net/default.html).
- Levy, M. (1997). *Computer-assisted language learning context and conceptualization*. Claredon Press, Oxford.
- Mehlinger, H. D. (1995). *School reform in the information age*. Bloomington, IN: Centre for Excellence in Education.
- Oxford, L. (2006). Task-based language teaching learning. *Asian EFL Journal*, 8 (3), 120-145.
- Pintrich, P. R., Smith, D.A.F. Garcia, T., & McKeachie, W.J. (1993). Reliability and predictive validity of the motivated strategies for learning questionnaire (MSLO). *Educational and psychological measurement*, 53, 801-803. Retrieved June 2, 2013 from [http://www.gifted.uconn.edu/siegle/self regulation/section 13.html](http://www.gifted.uconn.edu/siegle/self%20regulation/section%2013.html).
- Sanders, R. (Ed.) (1995). Thirty years of computer-assisted language instruction. *Festchrift for John R. Russell, CALICO Journal special Issue*.12, 4.
- Singhal, D. (1998). Language learning strategy use of bilingual foreign language learners in Singapore. *Language Learning*, 32 (4), 48-52.

- Sivin-Kachala, J., & Bialo, E. (2000). *2000 research report on the effectiveness of technology in schools* (7th ed.). Washington, D.C: Software and Information Industry Association.
- Taylor, R. (1980). *The computer in the school: tutor, tool, tutee*. New York: Teachers college Press.
- Tozcu, A., & Coady, J. (2004). Successful learning of frequent vocabulary through CALL also benefits reading comprehension and speed. *Computer assisted language learning*, 17 (5), 473-495.
- Warschauer, M. (1996). Computer-assisted language learning: an introduction. In Fotos S. (Ed.). *Multimedia language teaching*. Tokyo: Logos International. Retrieved June 30, 2013 from <http://www.ict4lt.org/en/warschaues.htm>.
- Warschaues, M., & Healey D. (1998). Computers and language learning: An overview, *Language Teaching*, 31, 57-71.
- Warschauer, M. (2002). The death of cyberspace and the rebirth of CALL. *English Teachers' Journal*, 53, 61-67