Computer Assisted Language Learning: ESL Learners Attitudes in Vocabulary Empowerment

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Abstract

A major development in computer-assisted language learning has been the expanded use of the computer as a medium of communication. This paper examines whether computer networks are indeed an effective tool for empowering second-language learners, focusing on vocabulary learning or not. However, none of the previous studies have specifically addressed the question as to how realistic a claim it is to consider computer technology as a replacement for the traditional increasing vocabulary knowledge in the classroom. Consequently the present study was designed to compare the effects of three kinds of different technical tools to see if they affect on ESL learners' overall vocabulary empowerment. To that end, a total of 44 English translation majors, who were learning English for special purpose as part of their studies at Islamic Azad University of Ramsar Branch, were administered Longman TOESP Test as a homogeneity test to establish that they were homogenous. As a second administration a modified version of Schmitt's vocabulary learning strategies questionnaire (VLSQ) was used in this experiment for pre- test and the post test. Finally, a series of paired-sample t tests was conducted to test the hypotheses of the study. The results indicated that technical tools can be considered as an effective item for a vocabulary empowerment.

Keywords: Computer Assisted Language Learning, eclectic view, technological options; ESL

1. Introduction

Since the emergence of computer-based writing instruction, with the continual miniaturization of computers and the advent of microcomputers, CALL (Computer Assisted Language Learning) enthusiasts have always been fascinated by the degree to which computer technology can be used for vocabulary empowerment to broaden the field's horizons. Despite the rather ambitious pioneering endeavors and the growing computer activities in language learning, little has been done in the development of a theoretical framework for the use of computers in the discipline.

2. The Importance of the Study

It is anticipated that this study will shed light on the benefits of using computers in language learning in general, and focusing on English vocabulary learning in particular. Among those methods for language instruction, the traditional approach and the integrated approach have been quite popular in the past. In the traditional teaching method, language skills are isolated and taught individually. Research on the effectiveness of new technologies, particularly the use of computers in language teaching, has been an ongoing process. In addition, resources available to students and teachers through modern facilities, using CALL have been extended. Furthermore, this study was also designed by the aim of contribution to the field of computers in education. This study also attempts to fill the gap between the theoretical and practical sides of using CALL in increasing the vocabulary knowledge of ESL learners. This study may help teachers by controlling their role as well as students by helping them absorb the structures and rules of learning vocabulary smoothly. Educators of language have advocated different approaches for the instruction of language skills. The findings may assist educators to design and insist on student-centered learning. CALL has the potential for individualizing instruction, with the main purpose of improving language learning. Finally, understanding the language learners' perspectives should assist ESL instructors and ESP and EFL curriculum designers in any future English designs that incorporate CALL materials.

3. Methodology and Procedure

One of the most important aspects of using computer related to the educational instruments is in the area of

teaching vocabulary. As it goes without saying, vocabulary learning has always been the challenging aspects of language learning through the history of language teaching and learning. Integration of a variety of computer-based activities in teaching vocabulary to second and foreign language teaching is figured out to be effective. Vocabulary learning is one of the critical issues being discussed in all phases of language learning and teaching, it can be due to the core building block for any successful communication to take place. Hence, the lack of high vocabulary knowledge may hinder effective communication with members of the target community. Seeking in the tutorial CALL applications that are available now, it is clear that they are all able to function adequately as the e-learning system described in stage one. It is important to note that only some of them will actually give learners a comprehensive explanation for the selection of tasks and the order in which they are administered. Examination of essential factors such as attitudes could provide fruitful insights into the complex issues that are critical to success in language acquisition. Based on this the current study investigated the effect of computer assisted tools on Iranian ESL learners' vocabulary gain. A total of 44 male and female, who were selected out of 69 ESL learners, participated in the study. In order to get precise information about the participants' achievement in computer enhanced classes and to make sure about the involvement of all participants in doing computer-based activities, they were randomly assigned to four groups: one experimental group (one consisting of 22) and one control groups (the same distribution as the experimental group). The experimental groups were taught the passive voice via computer while the control group was taught the same vocabularies by the traditional method. Their age range was about 20-24 year old. One experimental and one control group took part in this study. The study followed a quasi-experimental in a pre-test and post-test design. In order to compare the results of their performance, an independent samples t-test was conducted.

Fig1. By using video projection information can be seen and all applications on the computer can be controlled via touching the board, either with your finger, or with an electronic pen/stylus

The presence of such a high motivation among the learners in experimental group could contribute to their active involvement in the process of learning. This implies that computers have a significant role in motivating learners' involvement in the learning process. In language teaching and learning, we have a lot to choose from the world of technology: Video projection, Computers, CALL, Electronic Dictionary, Power Point, Videos or DVD's. The last two decades have witnessed a revolution due to onset of technology, and has changed the dynamics of various industries, and has also influenced the industries and the way people interact and work in the society. This rapid rising and development of information technology has offered a better pattern to explore the new teaching model. As a result technology plays a very important role in English teaching. Using multimedia to create a context to teach English has its unique advantages. This paper tries to analyze the necessity of multimedia technology to language teaching and also brings out the problems faced by using these technologies. It also aims to make English teachers aware of the strategies to use it in an effective manner.

3.1 Samples of the Study

Two classes were purposefully chosen from the Ramsar PNU for convenience. In addition, the university was equipped with computer labs. A total of 66 junior students of PNU all male and with age range of 20 to 24 years participated in this experimental study. Consequently, students are supposed to have background knowledge and experience in using software. All of these participants were originally Iranian and English was a foreign language for them and Persian was the first language. The participants were recruited to voluntarily participate in an English language program. According to the scores of the homogeneous test (Longman TOESP Test**)** 44 students were ranked as low intermediate, 14 were ranked as intermediate, and 8 were ranked as high intermediate. For the need of this study the **44 participants** ranked as **low intermediate** were held in this study. In the other steps, to divide students randomly in two class, they were ordered alphabetically and then every odd numbers were placed in class A, and every even numbers in class B. it is worth mentioning that class A was taught in the lab with English Learning Program while class B was taught in an ordinary method. In the next step they were asked to answer a modified version of **VLSQ questionnaire** for data collection.

3.2 Instrumentation

To implement this study successfully, we have developed two types of instruments: Longman TOESP Test and a modified version of (VLSQ) questionnaire. We administered the Longman TOESP Test as a homogeneity test to establish that if the participants were all

homogenous. The main data were collected by using a modified version of Schmitt's vocabulary learning strategies questionnaire (VLSQ). The questionnaires were submitted to a panel of eight experts who were lecturer in English language and another panel of 12 individuals who majored in English education. The majority of these individuals possessed academic credentials at the level of a master's degree or above. The questionnaire was submitted to a panel of five experts who were instructors in the English language. These experts confirmed the relevance of each item and indicated no question in their view appeared irrelevant.

3.3. Research Question

RQ: Does CALL/web-based Instruction and teaching via projection have any effect on Iranian ESL learners' attitude in vocabulary learning?

4. Data Analysis and Findings

The process of learning can also be qualitatively different through the use of advanced computing and telecommunications technology. For data analysis a series of paired-sample t-tests was performed on the independent variables to ensure validity for this study and to determine whether there was any interaction between the independent variables with relation to the question as a whole. Integrating computers and web-based instruction into language learning process, which can offer a more powerful and authentic language learning environment, might be one of the ways to help ESL learners to satisfy their needs for learning. This section is devoted to the description of the statistical analyses which was considered to answer the question that formulated for the goal of this research. All the data were processed using the Statistical Package for the Social Sciences, version 18.0 SPSS software. The Longman TOESP Test was given as a homogeneity test to 48 students at advanced level. The mean score of the students was 61.01 and standard deviation was 3.77. The descriptive statistics of this test is presented below.

Table1 Descriptive Statistics of Longman TOESP Test

Test	N	Mean	Std.
Longman TOESP	44	61.01	3.47

Hence the results of the t-test are reliable enough to be presented. In comparing the pre-test there weren't any significance differences available. In other words the two groups are homogenous in terms of their general vocabulary knowledge prior to the administration of the treatments. But as it is shown in table 3, in demonstration the results of the post-test scores, it showed that there are some differences between the experimental and control groups. However, the involvement of all learners,

their enthusiasm to use the new technology in language learning and learners' positive attitudes toward learning was apparent in the experimental group.

Table2 Descriptive statistic of paired sample T-Test (Means and Std of Pre- Test)

Pre-Test	N	Mean	Std. Deviation
Experimental	22	9.04	.45
Control	22	8.98	.43

Table3 Descriptive statistic of paired sample T-Test (Means and Std of Post-Test)

Post-Test	N	Mean	Std. Deviation
Experimental	22	16.97	1.29
Control	22	12.84	1.12

The question of the study asked about the existence of statistically significant differences ($\alpha < 0.05$) between the students' achievement mean scores in vocabulary learning to the instructional method of teaching (contemporary & computerized). Descriptive statistics of paired sample test was performed to test the significance of the differences between the experimental groups who were taught the passive voice via computer and the control groups who studied the same vocabularies in order to use the contemporary method. As indicated in Table 3, there are statistically significant differences between the mean scores in the achievement test of both the experimental group who used the computer and the control group who were taught by the contemporary method. The mean scores of the experimental group is (16.97) while it is (12.84) for the control group. The difference between the two groups' mean scores is (4.13).

4.1. Evaluation of Students' Opinions About Modern Teaching Instruments

Unlike the primary whiteboard evaluation early researchers were unable to take a long-term approach, assessing impact on outcomes from using modern technology in the process of teaching and learning. However, an assessment was made of the link between the introduction of technological instruments and student perceptions of the quality of learning and teaching. These indicate a positive effect from the introduction of the technology on the learners' experience of classroom teaching. The table below respects PNU juniors' views on their learning when teachers use an interactive instrument in teaching process.

Table 4. Statement of ESL learners about learning English by Modern technology instruments

Statements about Usage of Modern Technology in Teaching (PNU students) /(Secondary students)	Agree	Agree/Strongly Agree
Power point and IWB's make it easier for the teacher to repeat and summarize		87%
I think teachers lessons are more prepared and organized when they use modern instruments in their teaching. 85		85%
Modern instruments like IWBs make learning more exciting and interesting		91%
It is easier to understand the work when the teacher uses projection system		82%
I think IWBs make teachers' drawings and diagrams easier to see		72%
I prefer lessons which are taught with CD's, PPT, E-mail and etc		86%
I learn more when the teacher uses an IWB		72%
We get to join in lessons more when my teacher uses an IWB or TV		66%

5. Discussion

One of the most expanded areas in educational technologies in the second half of the 20th century was computers. In the late 1950s, computers entered the developed countries. Nowadays, computers and web-based instructions have become more interesting, faster, easier to use and also more convenient. They can process and keep more information, as well. The conventional learning environment is all about teachers, desks, books, papers, and chalks. The advent of new technologies such as computer and the internet has supplemented this conventional environment with new ways of learning. Technology might be one of the factors which may affect the teaching for special purpose. It provides opportunities for learning through media, from video projection, internet, and computer. Nowadays the use of the internet and computer is widespread; people from different places contact each other more easily than ever before. According to Ahmad, Corbett, Rogers and Sussex (1985), usage of computers mentioned certain advantages for language teachers as they permit teachers to process and present real-life situations with flexibility. Hence, computer and web-based instruction or internet connections make better preparation for education (Jones, 2002; Cabadaetal, 2009). Computer-assisted language learning (CALL) is the most important role that computer plays in teaching English and learning. Computer-assisted Learning means the use of computer programs to facilitate learning. According to Huizhong (1985), computer-assisted learning is when computer is used as a tool; to improve students' learning and to help them understand the content more efficiently. Web-based instruction can be considered as a "virtual teacher" for students because the students can get the instructional materials anytime and anyplace. In other words, it permits them to get the instructional materials everywhere even away from school. The present study seeks to examine the effects of computer-assisted language learning and web-based instruction on ESL Iranian learners', autonomy, motivation, self-efficacy, and critical thinking. Computers and Interne are important tools for developing autonomy through activities which help learners to study without assistance from teachers (Joshi, 2011). Computer technology has played an important role in the teaching and learning process around the world. Lockard, Abrams, and Many (1997) stress that "the computer is an inescapable component of changes now facing education in the United States, indeed throughout the world" (p. 4). Today, computers are becoming an increasingly significant element in the teaching and learning of foreign languages and in the study of English as a second language. Mills (1996) reported that in terms of function, computers in language learning have two main tasks: mechanical and meaningful. However, the changes or lack thereof, over time, in how instructors and learners interact with **technology** will respect the importance of the role of computers in education. Furthermore, instructional activities that motivate students to implement computer technology should also have a critical role in language learning (Warschauer & Healey, 1998). The increasing usage of computers in the past decades in human life has encouraged many to investigate their effectiveness as instructional tools. The unquestionable presence of computers in all aspects of human life and the inner desire of human beings to enjoy learning through the use of computer educational games prompt the integration of computer-based instruction in ESL teaching and learning environments.

6. Limitations and Implications of the Study

There are some limitations in this research study. One of the main challenges was finding 42 homogenous students with suitable characters for the purpose of this study. Furthermore, the participants were selected from among the university students of English language and were roughly at intermediate level of proficiency. This implies that there might be limitations in the generalizability of the findings. In addition, the most important limitation was finding a lab which is equipped with computers and the internet. In this study, the sex of the students didn't take into account. This means that care must be exercised not to generalize the results beyond their proper limit.

7. Conclusion

The conclusions that can be drawn from this discussion are that tutorial CALL software has its place in language teaching. For the time being, it appears that its use will remain confined to the beginning and lower intermediate

learners. In order to foster learner independence, CALL software, and other learning software could include content that aims at the development of critical thinking, learning strategies and other skills that make a successful independent learner. Further research is needed to learn more about computer earning networks, and in particular, to help develop pedagogy that can unlock their promising potential. It appears that learners are able to handle a considerable amount of responsibility when it comes to the use of software tools. The results of the present study support the hypothesis that modern teaching instruments have a significant effect on English vocabulary learning of ESL learners. In one encounter, the participants demonstrated large gains in knowledge of vocabulary in association with using Power point and etc. Educational material that is interesting is also intrinsically motivating and should thus pave the way to successful learning.

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