

THE IMPACT OF COMPUTER-ASSISTED LANGUAGE LEARNING
ON ESL STUDENTS' SELF-PERCEPTIONS AND PERFORMANCESalar Lateef Qader¹, Kawar Ali Abdullah², Zubair Hamad Muhi^{3,*}¹Ministry of Higher of Education and Scientific Research, Iraq²Ararat Private Technical Institute, Iraq^{3,*} Department of English, Shiraz University, Iran

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Abstract

The objective of this research paper is to explore the impact of computer-assisted language learning (CALL) on ESL students' self-perceptions and performance in KRI. The aim of this paper is to examine the students' concerns about computer-assisted language learning. The instrument used was a survey questionnaire, and data was obtained from 100 students. Moreover, nine universities were involved in the poll. The survey questions were adopted from Hussain (2020). SPSS (Statistical Package for Social Sciences) software was used for data analysis. The findings of the paper found that students have low attitudes towards CALL. Yet, some of the responders endorse CALL as a method of learning English. The purpose of this endeavor is crucial for ESL students since it offers a cutting-edge teaching strategy and addresses the requirement for a strong pedagogical infrastructure and training. It is advised that computer-assisted language learning (CALL), which is a beneficial teaching tool in the classroom, should be used in a controlled setting in ESL classes.

Keywords: Computer-assisted language learning (CALL), Kurdistan Region of Iraq (KRI), English Second Language (ESL). Self-perceptions.

Introduction

The term "Computer Assisted Language Learning (CALL)" describes how technology and second language education and learning meet (Chen, 1998). The investigation and study of computer applications in language teaching and learning is known as "Computer Assisted Language Learning (CALL)" (Levy, 1996, p.1). With the use of animated visuals, games, and problem-solving techniques, among other things, CALL software aims to make language instruction enjoyable and interesting for students. These motivate make the students' ability and make it automatic. It aids students in developing their second language skills as well as fundamental learning abilities that may be used in a variety of academic fields (Jeyachandran,2007). The computer tutors and counsels the student by providing prompt feedback. For instance, a student could have been applying the erroneous concept or mispronouncing a phrase without recognizing it. In these cases, the computer analyzes the student's mistake,

fixes it, and helps the learner understand the underlying idea of the revised answer. Additionally, this helps the student's vocabulary, grammar, and punctuation skills grow. Each student may receive individualized attention from the computer and the instructor who oversees their work, pleasing the student and relieving the teacher of the laborious task of overseeing every student's work (Ravichandran, 2000).

Nowadays, computers are commonly recognized as a crucial teaching university resource for current foreign languages. The use of a computer in second language instruction, according to Lee (2004), can improve students' practices through experiential learning, increase student achievement, increase the amount of authentic study materials, and encourage more interaction between peers and teachers as well as between teachers and students, place an emphasis on individual needs, break free from a reliance on a single source of information, and increase students' understanding of the world. There is no doubt that computer technology has the potential to advance the study of English as a Second Language. Teo (2006) found that students' attitudes toward computers affected both their desire to their future computer activities, such as using them for academic and professional purposes, and use computers as a learning tool. Zhang (2011) makes a similar claim, saying that student attitudes toward computer-assisted language learning (CALL) can be a key measure of CALL success. Furthermore, (Ajzen & Fishbein 1977, p. 981) discovered that "attitudes toward targets will predict multiple-act criteria" provided both the attitudinal and behavioral entities contain the same target features. The attitudes of students can help us answer certain issues about technology adoption and use in teaching and learning. Overall, the findings of this paper have sought to delve into the impact of computer-assisted language learning on ESL students' self-perceptions and performance to identify the strength of ESL students' perceptions towards computer devices. Nowadays, technology is a significant instrument for learning and imparting foreign languages. This paper attempts to discover the ESL students' perceptions on both sides of the upsides and downsides in language learning. There are some sections that are characterized in the prospective sections: which will be followed by a brief review of literature, objectives, research questions, and research methodology; participants; data collection; and the data analysis and procedure; findings section. At the end of the study, we will go beyond that discussion in the conclusion.

Literature Review

Computer technology is often regarded as the best instrument for improving pupils' English learning, according to several academics.

Computer-assisted language learning (CALL) was described by (Beatty 2003, p.7) as "any procedure in which a learner uses a computer and, enhances his or her language" Computers assist students in learning English in three different ways, according to Warschauer (1996): as a tutor (providing tutoring to students), as a stimulus (improving students' synthetic and analytical thinking), and as a tool (e.g. grammar checking, word processing, collaborative writing, and Internet) Computer usage in the teaching and learning process should go without saying. Through cooperative learning opportunities, computer technology may aid individuals in developing their interpersonal and communication skills. As a result, using computers in the classroom increases student motivation to learn as well as the instructional efficacy and the efficiency (Afshari et al., 2009).

Many academics believe that integrating ICT into the classroom motivates pupils to think critically and involves them in cognitive tasks (Teo, 2006). Pemberton, Borrego, and Cohen (2006) found that integrating ICT creates a potent learning environment that naturally drives students to learn and participate in classroom activities. Their study focused on using interactive computer technology to increase learning. Wright (2008) asserts that combining academic learning with computer technology increases students' interest and confidence in the process of learning and exploring knowledge. Computer technology seems to be an important tool for promoting cutting-edge teaching and learning techniques. Children may benefit from it by learning how to collaborate, speak clearly, solve issues, and keep learning throughout their lives (Voogt&Knezek, 2008).

According to Teo (2006), student attitudes toward technology have an impact on the relationship between classroom learning and the use of instructional technologies, one of the psychological elements that helps technology be successfully incorporated into the learning of a second or foreign language is attitude. In line with this idea, Ayres (2002) investigated students' perceptions of CALL and discovered that 80% of the students believed CALL was pertinent to their requirements, 77% agreed that CALL provided significant information, and 66% said CALL should be used more in their learning. The compute-assisted language learning was developed by Davis et al. (1989) based on the Theory of Reasoned Action (TAM). This paradigm is used by TAM, which then generates two elements that characterize attitude from it. CALL is technology-related, whereas TRA is general (Gilbert & Kelly, 2005). The elements in consideration perceptions of usefulness and usability. While perceived ease of use relates to how simple or challenging it will be to use a

technology, perceived utility measures how much individuals believe a technology will help them do their jobs more effectively (Davis, 1989). If a computer is perceived as being easy to use, requiring little mental effort, and being helpful for learning, people may be more open to using it to learn English. It is reasonable to suppose that people like these will use computers a much.

Another study is conducted by (Nutta, 1998). In his research study, he contrasted teacher-directed grammar education with computer-based grammar training on open-ended tests that covered the relevant structures, students using computers outperformed students using teacher-directed instruction at all English proficiency levels. Using computer-assisted training to teach L2 grammar can be effective in which he jointly and collectively taught the CALL program to students, AbuSeileek and Abu Sa'aleek (2012) examined the effect of a CALL program on students' English writing abilities. The results of the study showed statistically significant differences between the experimental and control groups, who studied using computer-assisted learning and traditional methods, respectively. Language learning in the experimental group using computers was shown to be noticeably different (AbuSeileek et al., 2012). AlQumoul (2005) investigated how a software program for teaching English language skills affected the performance of tenth grade pupils. The results showed that students who took CAI courses to improve English language skills performed better in the study than those who took regular classes (AlQomoul, 2005).

Objectives

The objectives of this article should be categorized as:

- 1- Exploring the students' views of preferred CALL may aid in developing communicative competency and assist in their learning.
- 2-Figuring out the students' attitude towards CALL

Research hypothesis

The research hypothesis in this current paper is formulated as follows:

- 1-There is a significant relationship between English language proficiency based on participants' gender
- 2-There is a significant relationship between English language proficiency based on participants' age
- 3-There is a significant relationship between English language proficiency based on participants' education level

Participants

A total of 100 participants from different universities were selected in this study, of which 10 were from each Raparin University, Koya University,

Soran University and Halabja University, 12 were selected from each Salahaddin University, Lebanese French University, Tishk University and Halabja University and then 13 participants from Dohuk University and the participants of Zaxo University were 11 that frequency of which is seen in Table 4.1.

Table 4.1 Frequency by universities

	Frequenc y	Percen t
Raparin University	10	10.0
Salahaddin University	12	12.0
Lebanese French University	12	12.0
Koya University	10	10.0
Soran University	10	10.0
Tishk University	12	12.0
Dohuk University	13	13.0
Zaxo University	11	11.0
Halabja University	10	10.0
Total	100	100.0

Among the 100 participants, 51 are female and 49 are male; their outcomes are displayed in Table 4.2.

Table 4.2 frequency by gender

	Frequenc y	Percen t
Male	51	51.0
Female	49	49.0
Total	100	100.0

Table 4.3 shows that 24% of participants in this paper are between the ages of 20 and 25, 53% between the ages of 26 and 30, 21% are between the ages of 31 and 35, and 2% are older than 36.

Table 4.3 frequency by age

	Frequenc y	Percen t
20-25	24	24.0
26-30	53	53.0
31-35	21	21.0
36 & Above	2	2.0
Total	100	100.0

Table 4.4 shows the detailed information for the 100 participants in this study: 2 had a diploma, 67 had a B.A., 20 had an M.A., 7 had a PhD, and 4 had a vocational degree.

Table 4.4 Frequency by education level

	Frequency	Percentage
Diploma	2	2.0
Bachelor's	67	67.0
Master's	20	20.0
Ph.D.	7	7.0
Vocational	4	4.0
Total	100	100.0

Overall, 44 participants studied English language teaching, 38 studied English language and literature, 8 studied linguistics, and 10 studied English translation, the results of which are shown in table 4.5.

Table 4.5 frequency by field of Study

	Frequency	Percentage
English language teaching	44	44.0
English Language and Literature	38	38.0
Linguistics	8	8.0
English Translation	10	10.0
Total	100	100.0

In this paper, 81 are working at Governmental universities and 19 are working at private universities. The detailed results are shown in Table 4.6.

Table 4.6 frequency of University's type

	Frequency	Percentage
Governmental	81	81.0
Private	19	19.0
Total	100	100.0

Language proficiency of %52 is intermediate, %22 upper intermediate, %7 advanced, %16 elementary, %1 beginner and %2 is proficient that results are shown in table (4-7).

Table 4-7 frequency by language proficiency

	Frequenc y	Percen t
B1 (Intermediate)	52	52
B2 (Upper intermediate)	22	22.0
C1 (Advanced)	7	7.0
A2 (Elementary)	16	16.0
A1 (Beginner)	1	1.0
C2 (Proficient)	2	2.0
Total	100	100.0

Results show % 15 use Electronic Dictionary, % 16 use Tablet Computer, %23 use Smartphone, % 12 use Audio Player, % 13 use Desktop computer, %6 use Electronic BookReader, %4 use Smart Watch, %4 use Laptop and %7 use other devices to support a foreign language learning that detailed results are shown in table (4-8).

Table 4-8 frequency of devices used to support foreign language learning

	Frequenc y	Percen t
Electronic Dictionary	15	15.0
Tablet Computer (e.g. iPad)	16	16.0
Smartphone	23	23.0
Audio Player (e.g. MP3, or CD player)	12	12.0
Desktop computer	13	13.0
Electronic book Reader (e.g. Kindle)	6	6.0
Smart Watch (e.g. iWatch)	4	4.0
Laptop	4	4.0
Others	7	7.0
Total	100	100.0

Data analysis& findings

As stated earlier, the data was gathered using a closed-ended questionnaire and following five points Likert scale. To analyze the data and determine frequency and percentage, SPSS 22 was used. The quantitative data were analyzed and then provided in tabular form, which further contributed to the research study's results.

the table (4-9) provides the results of normality tests for "English language proficiency" using the Kolmogorov-Smirnov and Shapiro-Wilk tests. The "Statistic" column shows the test statistics, "df" represents the degrees of

freedom, and "Sig." indicates the significance level. These tests are commonly used to assess whether a dataset follows a normal distribution.

Table 4.9 Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
English language proficiency		6.143	100	3.12	7.933	100	2.18

The results indicate that for the English language proficiency variable, both the Kolmogorov-Smirnov and Shapiro-Wilk tests do not provide evidence to reject the assumption of normality, as the significance levels (3.12 and 2.18) are greater than the conventional alpha level of .05. This suggests that the English language proficiency variable approximately follows a normal distribution. The table (4-10) presents the group statistics for "English language proficiency" based on gender. It includes the number of participants (N), the mean, standard deviation, and standard error mean for both male and female groups.

Table 4.10 group statistics for "English language proficiency" based on gender

	Gender	N	Mean	Std. Deviation	Std. Error Mean	Error
English language proficiency	Male	51	28.75	11.706	1.639	
	Female	49	72.98	14.486	2.069	

The group statistics for "English language proficiency" based on gender show that the mean proficiency score for males is 28.75 with a standard deviation of 11.706, and for females, the mean proficiency score is 72.98 with a standard deviation of 14.486. The standard error of the mean is 1.639 for males and 2.069 for females. The independent samples t-test was conducted to compare the English language proficiency scores between genders. The results in table (4-11) indicate a significant difference in proficiency scores between males and females ($t(98) = -16.827$, $p = .000$, 95% CI [-49.451, -39.018]). Additionally, the assumption of equal variances was violated, as indicated by Levene's test ($F = 7.152$, $p = .009$). Table 4-11 independent t-test for English language proficiency according to gender

	T	df	Sig. (2-tailed)
English language proficiency	-16.827	98	.000

-	92.260	.000
16.755		

These results suggest that there is a significant difference in English language proficiency scores among males and females. The proficiency scores for females are significantly higher than those for males. Additionally, the assumption of equal variances was violated, indicating that the variances of the two groups are not equal.

Table (4-12) presents the results of an analysis of variance (ANOVA) for English language proficiency. It includes the sum of squares, degrees of freedom, mean square, F-value, and significance level for both between groups and within groups. The results indicate a significant difference in proficiency scores between at least two groups.

Table 4-12 ANOVA result of English language proficiency according to age

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	24979.624	3	8326.541	19.571	.000
Within Groups	40842.736	96	425.445		
Total	65822.360	99			

The ANOVA results for English language proficiency indicate a significant difference in scores between at least two groups ($F(3, 96) = 19.571, p = .000$). The between-groups variation is considerably larger than the within-groups variation, suggesting that there are significant differences in proficiency scores among the groups being compared.

This results suggest that there is a significant difference in English language proficiency scores among the groups being compared. The variation in proficiency scores between the groups is substantial, indicating that there are likely meaningful differences in language proficiency across these groups.

Table (4-13) presents the results of an analysis of variance (ANOVA) for English language proficiency. It includes the sum of squares, degrees of freedom, mean square, F-value, and significance level for both between groups and within groups. The results indicate a significant difference in proficiency scores between at least two groups.

Table 4-13 ANOVA result of English language proficiency according to education level

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	22868.262	4	5717.066	12.644	.000
Within Groups	42954.098	95	452.148		

Total	65822.360	99
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The ANOVA results for English language proficiency indicate a significant difference in scores between at least two groups ($F(4, 95) = 12.644, p = .000$). The between-groups variation is substantially larger than the within-groups variation, suggesting meaningful differences in proficiency scores among the groups being compared. results suggest that there is a significant difference in English language proficiency scores among the groups being compared. The variation in proficiency scores between the groups is substantial, indicating that there are likely meaningful differences in language proficiency across these groups.

Table (4-14) provides the group statistics for "English language proficiency," including the number of participants (N), the mean proficiency score, standard deviation, and standard error of the mean for both the control and experimental groups. It shows the descriptive statistics for the proficiency scores in each group.

Table 4.14 group statistics for "English language proficiency" based on gender

	Gender	N	Mean	Std. Deviation	Std. Mean Error
English language proficiency	Control	50	27.62	8.600	1.216
	Experimen ts	50	73.22	14.438	2.042

The group statistics for "English language proficiency" show that the mean proficiency score for the control group is 27.62 with a standard deviation of 8.600, and for the experimental group, the mean proficiency score is 73.22 with a standard deviation of 14.438. The standard error of the mean is 1.216 for the control group and 2.042 for the experimental group. These results suggest that there is a substantial difference in English language proficiency between the control and experimental groups. The experimental group has a significantly higher mean proficiency score compared to the control group, indicating a potential impact of the experimental treatment on language proficiency, the table (4-15) presents the results of an independent samples t-test and Levene's test for "English language proficiency." It includes information about the equality of variances and the comparison of means between two groups. The results show a significant difference in means between the groups, with indications of unequal variances.

Table 4-15 independent t-test for English language proficiency according to groups

t	df	Sig. (2-tailed)
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English language proficiency	-	98	.000
	19.187		
	-	79.880	.000
	19.187		

The results of the independent samples t-test for "English language proficiency" indicate a significant difference in means between the compared groups ($t(98) = -19.187, p = .000$). The Levene's test for equality of variances also suggests unequal variances between the groups ($F = 19.366, p = .000$). The mean difference in proficiency scores is -45.600 , with a 95% confidence interval ranging from -50.316 to -40.884 . Results suggest that there is a significant difference in English language proficiency between the compared groups. The results indicate unequal variances between the groups, and the mean difference in proficiency scores is substantial, with a 95% confidence interval provided for the difference.

Discussion

The current study investigates Kurdistan Region Iraq ESL students' opinions about CALL usage in the classroom. According to Stockwell (2007), students choose mobile phones over PCs since they are more practical and technologically advanced for language study. The vast majority of learners preferred CALL devices for learning English. Due to the fact that this device is exceedingly handy for them to strengthen their communicative competency, as a result, according to university data, nearly half of them have a favorable opinion. The main characteristics of CALL are its spontaneity, ubiquity, and personalization (2012) Huang et al. But unlike computers, the user has more location and time flexibility, which is a big benefit for individuals learning a second language (Miangah&Nezarat, 2012). Learners must gain learning autonomy since they may pick their own learning pace (Benson, 2011). Another study claims that integrating CALL improves the affectivity of learning and gives them the chance to study diligently and actively by accessing a variety of pertinent online materials and resources and, in particular, interacting with teachers and peers in groups where only serious discussion is permitted (Azli, Shah, & Mohamad, 2018). Overall, the responses from the students show a high preference for the perceived utility and simplicity of CALL. This strongly suggests that university students believe CALL to be incredibly relevant and valuable since it offers a variety of advantages and learning possibilities.

As stated above, regarding the gleaning data of this paper, students have both negative and positive aspects to the question. They frequently reckon

that CALL is somehow quite handy for learning languages. According to Chang et al. (2012), found that motivation should be given to students so they may gain both good attitudes and computer abilities. Students can benefit from training that encourages them to utilize computers and CALL programs as much as possible while learning. The most hours feasible should be available for students to use the language and computer labs. The institution should also urge professors to use more computer technology into their curriculum planning and instruction. Learners of ESL should think that CALL-based courses can be more successful than conventional ones. They should be familiar with CALL apps and software in order to help students with technical issues and recommend the best way to incorporate CALL into their ESL course design. The learning process in the classroom is prioritized along with the learner's social and personal aspects because the learner is seen as a dynamic, individual (Dörnyei&Ushioda, 2009), which found that takes into account the constantly changing variables and the learner's interaction in the new phase. According to Kennedy & Levy (2008), the extent to which a technology is used outside of the classroom influences how well-suited it is for language learning. As a result, a deeper comprehension of how students use their mobile devices at home could help determine how well-suited they are for use in the classroom. Additionally, Dörnyei (quoted in Dörnyei&Ushioda, 2011) supported the results because Each person has a distinctive combination of personal, mental, and emotional characteristics, it may never be easy to comprehend and generalize about the learner's specific distinctions.

Conclusion

The development of amazing learning applications in the CALL, such as those for learning other languages. Its potential to change learning paradigms and how language learning instruction is delivered should be embraced by educators, course producers, legislators, and other key stakeholders. The ultimate purpose of learning technologies is to create and convey information to learners, address their challenges with learning, and provide a comfortable, enjoyable, and effective learning environment. The extensive implication of this research is that every learner is unique due to their sentiments, interests, and learning habits, all of which are always changing in everyday life. The major findings of this article focused on how the students are motivated to practice their foreign languages in the CALL situation, the types of motivation they encounter, and their feelings. Therefore, it is suggested that more in-depth interviews with students be conducted in order to gain detailed and pertinent insights into why

particular CALL activities encourage students to practice particular language skills, as well as the reasons why they are motivated by various motives and sources of various emotions. to better understand the students' dynamic and realistic emotions within the MALL framework. By recognizing various traits in diverse groups of pupils, the comparison will allow them to enhance their educational experience accordingly.

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