

COMPUTER-ASSISTED AUDIO-VISUAL ACTIVITIES, ON ENGLISH GRAMMAR LEARNING AND SELF-ESTEEM AMONG THE FIRST GRADE HIGH SCHOOL STUDENTS

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ABSTRACT

It should be pointed out that CALL programs have helped educators to develop different types of learning which are based upon these technologies. The present research was an attempt to investigate the impact of computer-assisted audio-visual activities on grammar learning and self-esteem among Iranian first grade high school students. For the purpose of homogeneity, the Cambridge Key English Test (KET) was administered and sixty female first grade high school students were selected as participants of the study from among one hundred students. Then, they were assigned into two groups. The Nelson Test (050A) was administered as a pre-test to both groups in order to check their grammar knowledge. Then the researcher randomly selected 12 lessons of English Sentence Structure by Krohn and taught those lessons during 16 sessions (by CALL method to experimental group and Grammar-translation method to control group). At the end of the treatment, the experimental group along with the control group was given a Nelson test (050D) test and also a teacher-made achievement test as a posttest in order to check the effect of the treatments on their grammar learning. Then, in order to obtain the required information about participants' self-esteem, Rosenberg's Self-Esteem Scale (1965) was administered. According to the findings, these results were obtained: 1) There was a statistically significant difference between the grammar scores of learners instructed by CALL ($M = 49.52$, $SE = .42$) and those of the learners instructed by the traditional approach ($M = 42.24$, $SE = .42$), 2) There was a significant difference between the self-esteem of learners instructed by CALL ($M = 26.97$, $SD = 2.18$) and that of the learners instructed by the traditional approach ($M = 17.60$, $SD = 3.30$), 3) There was a significant positive relationship between the learners' self-esteem and grammar proficiency.

The findings have implications for material designers, teachers and teacher trainers and provide suggestions for further research.

Keywords: CALL, Grammar, Audio-Visual Activities, Self-Esteem

INTRODUCTION

Background of the Study

Nowadays, scientists have realized the basic role of information and communication technology in different industries. They are so widespread that if you do not use them, you will feel outdated (Iravani and Tajik, 2012).

Grammar has been taught in numerous ways during the history of language learning. In the 19th century, grammar was the most important part of learning a foreign language while during the 1980s grammar was not thought to be taught at all. Nowadays, most people agree that some grammar might benefit the pupils, but how it is to be taught is still a controversial issue (Arnell, 2012).

The term 'traditional grammar teaching' indicates a focus on rules, patterns, and grammatical forms. Traditional grammar teaching, while somewhat difficult to identify, could be described as a 'focus on forms' instead of a 'focus on form'. 'Focus on forms' implies that the linguistic part of the language is emphasized. Forms, or structures, become more important than communication (Arnell, 2012).

For many years different kinds of grammar instruction were seen as the only way to learn a second language. In traditional grammar teaching, learners produce language through drill-exercises. Tornberg (2007:103-105) as cited in (Arnell, 2012) explains the grammar translation method as a method where the

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language is studied as a product, with no focus on communication. This method was common in the 1800s and later followed by many others, some more focused on grammar and some less.

Computers were introduced in schools in the 1970s, and there has been a rapid technological development over the past 40 years. Computers are now a part of our everyday lives, but even so, many language teachers do not know how to integrate ICT in their teaching. CALL-exercises usually mean tasks where the computer is the tutor, and the pupils need to provide some kind of response, either by clicking, filling in a word, or saying something into a microphone (Arnell, 2012).

Learning English as a foreign language in the recent years has been accompanied with the rebellion of changes in the field of technologies. One of these changes is the use of computers in learning English (CALL). Therefore, CALL is one of the most important technologies used to help language learning (Ghorbani & Marzban, 2013). The combination of text, audio, and video has made multimedia an excellent format for learning materials and has led to the birth of an industry in computer-assisted language learning (CALL). So, in another words we can say CALL is a language learning and teaching approach in which the computer is used as a tool for assisting students, presenting and evaluating material, and has an interactional element. From past to now, CALL developed in parallel with facilities provided by computer technology. Many studies worldwide have been conducted to investigate the effect of CALL on learning languages (Jafarian *et al.*, 2012). Different technological devices and tools have been playing a vital role in language teaching in general and in grammar teaching in particular. Some of these tools like the computer permit interactions with the learners through giving feedback and explanations of some grammatical elements which makes such tools effective in teaching grammar (Alami *et al.*, 2014).

Even though it is currently impossible for the computer to engage learners in authentic two-way communication, it is, in fact, possible for CALL to provide rich input in the form of integrated multimedia programs and to provide explicit grammar explanations that can be viewed and reviewed at the learner's own pace (Rabab'ah and Abu, 2007).

The unique property of the computer as a medium for education is its ability to interact with the student. Books and tape recordings can tell a student what the rules are and right solutions are, but they cannot analyze the specific mistakes the student has made. Yet, the computer gives individual attention to the learners and replies to them. It guides the learner towards the correct answer and generally adjusts the materials to his or her performance (Iravani and Tajik, 2012).

It is a famous fact that audio-visual materials are a great help in stimulating and facilitating the learning of a foreign language. Many media and many styles of visual presentation are useful to the language learner. That is to say, all audio-visual materials have positive aids to language learning as long as they are used at the right time and in the right place. In recent years, the use of video in English classes has developed rapidly as a result of the increasing emphasis on communicative techniques. As video is a valuable resource, it is liked by both students and teachers. Students like it because video presentations are interesting, challenging, and stimulating to watch (Çakir, 2006).

A great advantage of video is that it provides authentic language input. The practical implication of the video in the classroom is that the teacher can step in the process whenever s/he wishes; s/he can stop, start, and reverse to repeat it for several times where necessary. To pay special attention to a particular point in the program, it is possible to run in slow motion or at half speed or without sound (Çakir, 2006). Besides, the learner can concentrate on the language in detail and interpret what has been said, repeat it, and so on. Using visual clues to meaning in order to improve learning is an important part of video methodology. Video gives the students practice in concluding attitudes. The rhythmic hand and arm movements, head nods, head gestures are related to the structure of the message. Furthermore, the students have a general idea of the culture of the target language.

The disadvantages of video are as follows: The main disadvantages are cost, inconvenience, and fear of technology. Additionally, the sound and vision, quality of the copies or home-produced materials may not be ideal. Another important issue in this case is that the teacher should be well-trained on using the video (Çakir, 2006).

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Self-esteem is one of the psychological variables or individual differences that have been investigated for many years in the field of language learning. The relationship between self-esteem and language learning was later taken into consideration from different phases by researchers (Tayebinik and Puteh, 2012). Oxford and Ehrman (1992) as cited in (Çakir, 2006) introduced self-esteem as one of the effective psychological factors in second language learning. Coopersmith (1981) explained that:

By self-esteem we refer to the evaluation which an individual makes and customarily maintains with regard to himself; it expresses an attitude of approval or disapproval, and indicates the extent to which an individual believes himself to be capable, significant, successful and worthy. In short, self-esteem is a personal judgment of worthiness that is expressed in the attitudes that individual holds toward him.

Considering the importance of grammar in students' EFL learning, the researcher tries to look at learners' grammar development through audio-visual activities and also to see if there is any significant difference between the self-esteem of learners instructed by CALL and that of the learners instructed by the traditional approach. Therefore, in the present study, the researcher has been interested in investigating the effect of audio-visual activities on English grammar learning and self-esteem.

Statement of the Problem

This study will examine the effect of CALL audio-visual activities on English grammar learning and self-esteem among the first grade high school students. The abbreviation CALL stands for Computer Assisted Language Learning. It is a term used by teachers and students to describe the use of computers as a part of language course. It is traditionally described as a means of presenting, reinforcing, and testing particular language items (Gunduz, 2005).

Rabab'ah and Abuseileek (2007) believed that in the recent years, there had been an increasing interest in the use of computer-assisted language instruction since it has proved to be advantageous. Ghorbani and Marzban (2013), in their article titled "The Effect of CALL on Iranian Beginner EFL Learners' Grammar Learning", said that recent years have witnessed a growing interest in the use of computers for language teaching and learning. One of the wide uses of CALL programs can be in the area of grammar instruction. By using the computer for the presentation, explanation, and application of grammatical structures, more classroom time can be dedicated to real communication that focuses on expressing meaning and using appropriate grammatical structures to express that meaning. It is possible for CALL to provide rich input in the form of integrated multimedia programs and to provide explicit grammar explanations that can be reviewed after a while when needed. Another special characteristic of CALL-based programs is that they increase the language learners' autonomy. Using CALL-based programs, the learner is not anymore dependent on other members of the class but s/he can choose the pace at which s/he progresses and controls the degree of difficulty of the task at hand.

Warschauer and Healy (1998) note that CALL can be separated into three main stages: behaviorist CALL, communicative CALL, and integrative CALL. Each stage corresponds to technological and pedagogical theories.

Significance of the Study

The world is leading towards knowledge economy and a lot of money will be invested in Computer Assisted Language Learning activities and software programs. Many studies have been done on investigating the effect of Computer Assisted Language Learning and audio-visual activities on the learning of different English language skills.

Therefore, it is worth investigating the effectiveness of such CALL programs in the English learning of learners. Of course, there has been some research which investigated the effect of CALL activities or audio-visual activities on grammar learning. A research by Rabab'ah and Seileek (2007) in university of Jordan investigated the effect of computer-based grammar instruction on the acquisition of verb tenses in an EFL context.

Thus, the present study seeks to explore the effect of Computer Assisted Language Learning audio-visual activities on the learning of English grammar and also wants to see whether Computer Assisted Language Learning audio-visual activities can increase students' self-esteem or not. However, in our country no particular research has been done on the effect of Computer-Assisted audio-visual activities

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on both English grammar learning and self-esteem. In "self-esteem and foreign language learning" written by VD (2007), it is stated that Confidence comes from competence, and learners must both be competent and feel competent. Rabab'ah & Seileek (2007) stated that using computers in teaching grammar can save learning time compared to the traditional L2 classrooms. Learners can receive immediate feedback about their answers and correct their errors. The computer also individualizes learning. The learner is not dependent on other members of a class, so this can be helpful in increasing student's self-esteem. Therefore, the results of the present study can help the academic improvement of foreign language learners.

Purpose of the Study

The first objective is to find out if there is any significant difference between the learners instructed by CALL and those instructed by the traditional approach, concerning the gained scores on learning English grammar.

The second objective is to find out if there is any significant difference between the learners instructed by CALL and those instructed by the traditional approach, concerning their self-esteem.

The last one is to see if there is any significant correlation between the self-esteem and learners' grammar proficiency.

MATERIALS AND METHODS

Methodology

Participants

The participants in this investigation were 60 female students selected from among 100 first grade high school students from Fatemiye high school in the city of Tarom. They were selected through administering a homogeneity test of KET. The participants' age ranged from 14-16. They came from a bilingual background, Turkish and Persian. All of the participants were in lower intermediate level of proficiency.

Instrumentation

1. *A Test of Nelson 050A (1976)*: the test of Nelson 050A was administered to both of the groups as a pretest.
2. *Cambridge Key English Test (KET) (2014)*: in order to determine the learners' level of language proficiency and homogenize them in terms of their English language proficiency, this test was administered to 100 first grade high school students.
3. *English Sentence Structure by Krohn and the Staff of the English Language Institute (1971)*: The materials were presented in two versions: a printed version for control group and a computer-based version for the experimental group.
4. *A Parallel Nelson 050D Test*: a Nelson 050D test was administered as a posttest to both groups in order to check the effect of the treatment and the differences between two groups.
5. *A Teacher-Made Achievement Test*: a teacher-made achievement test was administered to the participants in order to check their achievements.
6. *Rosenberg's Self-Esteem Scale (1965)*: it was administered in order to obtain the required information about participants' self-esteem.
7. *Net-Support-School*: it was used by the instructor in order to display the instructor's screen on the students' screen, send them the tasks they should do, and receive their assignments.
8. *Computer*: it was used by the instructor in order to teach the experimental group.
9. *Microsoft Office PowerPoint*: it was used to teach difficult sections to the experimental group.

Reliability and Validity

Reliability Indices

The reliability indices for the pretest and posttest of grammar, self-esteem and grammar proficiency were .82, .93, .84 and .93 respectively.

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Table 3.1: KR-21 Reliability Indices

	N	Mean	Variance	
Pretest	60	41.70	35.603	0.82
Posttest	60	45.60	43.295	0.93
Self-esteem	60	22.28	30.037	0.84
Gram-Prof	60	89.77	121.979	0.93

Construct Validity

A factor analysis through the varimax rotation method was run to probe the underlying constructs of the KET, self-esteem and pretest and posttest of grammar. The SPSS extracted two factors which accounted for 76.70 percent of the total variance.

Table 3.2: Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.928	48.201	48.201	1.928	48.201	48.201	1.881	47.029	47.029
2	1.140	28.505	76.706	1.140	28.505	76.706	1.187	29.677	76.706
3	.825	20.617	97.323						
4	.107	2.677	100.000						

As displayed in Table 3.3 the pretest and posttest of grammar have loaded on the first factor which can be labeled as “grammatical knowledge” factor. The KET and self-esteem have loaded on the second factor. These results might suggest that self-esteem has more in common with a general proficiency test than a specific skill test. Self-esteem partially loaded on the first factor too.

Table 3.3: Rotated Component Matrix

	Component	
	1	2
Posttest	.942	
Pretest	.899	
NELSON		.771
Self-esteem	.381	.711

Dependent and Independent Variables

Based on the title of this thesis, The Effect of Computer-Assisted Audio-Visual Activities on English Grammar Learning and Self-esteem among the first Grade High School Students, Computer Assisted Language Learning (CALL) is the independent variable, and the grammar learning and self-esteem are two dependent variables to be investigated.

Procedure

The participants in this investigation were selected from among 100 female first grade high school students in the city of Tarom through administering a KET test as a general language proficiency test. Their age ranged from 14-16. The mean and standard deviation of the population's scores on the test were

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calculated ($M = 36.97$, $SD = 9.47$). The time allocated to this test was 50 minutes. The test was in the form of 50 multiple-choice items, and each item was weighed by a single credit with no negative point for a wrong answer. Based on the mean ($M = 36.97$) plus and minus one standard deviation ($SD = 9.47$), 60 students were selected to participate in the main study. The KR-21 reliability index for the KET test was .91. Then, the participants were randomly placed into two groups, about 30 students in experimental group and 30 in the control group.

Then, in order to homogenize the participants in term of their grammar, the researcher administered the test of Nelson 050A as a pretest to both of the groups. According to Nelson test, those students whose score ranged between 32-44 are considered to be lower-intermediate level. The book used in this research was the English Sentence Structure by Krohn and the staff of the English language institute (1971). Next, the researcher used different audio-visual activities (e.g. playing video clips related to the structures, offline or online test, colorful picture and flashcards) as a CALL method for teaching grammar for experimental group and the grammar-translation method for teaching the same parts of the book for control group. Treatment needed to be implemented for about 16 sessions. Instruction to both groups occurred in the same language laboratory under the same physical and educational conditions for 16 sessions (two sessions per week). At the end of the term, the experimental group along with the control group was given a Nelson 050D test and also a teacher-made achievement test as posttests in order to check the effect of the treatment and to see the differences between two groups. Before administering the teacher-made achievement test, it was piloted on 30 students similar to the participants of the study (all of them were lower intermediate female). It involved 50 multiple choice items, and the time allocated to it was 50 minutes. Each item was weighed by a single credit with no negative points for wrong answers. Then, in order to obtain the required information about participants' self-esteem, Rosenberg's Self-Esteem Scale (1965) was administered. This is a Likert scale (Strongly Agree 3, Agree 2, Disagree 1, and Strongly Disagree 0). As the items of the questionnaire were totaled and the assumption of normality was met, parametric test used to analyze the score.

The researcher compared and analyzed the scores gained by two groups on the post-test, pre-test, and teacher-made achievement test to see if there was a significant difference between the experimental group and control groups' results based on the two methods of teaching.

Data Collection and Data Analysis

Data were collected through administering and scoring Cambridge Key English Test (KET) as general language proficiency test, Nelson English Language Tests (050A, 050D) as pre-test and posttest, and also a teacher-made achievement test. First, KET was administered to 100 female students. The answer sheets were scored objectively. Each correct answer received one point.

There was no penalty for incorrect responses (or correction for guessing). Based on the mean plus and minus one standard deviation, 60 students of approximately equal level of proficiency was selected to participate in the main study. Then Nelson tests were used as both pre-test and posttest. And finally a teacher-made achievement test, constructed based on the students' course-book, was given to the participants.

In order to analyze the data, the parametric analyses of covariance (ANCOVA) and Pearson correlations using 18th version of SPSS, were run to investigate the research questions posed in this study.

Testing Assumptions

This study aims at investigating any significant differences between CALL and traditional approach groups' mean on grammar and self-esteem and also probing the relationship between their performance on grammar and self-esteem. The parametric analyses of covariance (ANCOVA) and Pearson correlations were run to investigate the research questions posed in this study. That is why the researcher should confirm that the assumption of normality, homogeneity of variances, and homogeneity of regression slope, linear relationship between dependent variable and covariate and linearity were met.

The assumption of normality was also met. As displayed in Table 4.1, the ratios of skewedness and kurtosis over their respective standard errors are within the ranges of ± 1.96 .

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Table 4.1: Testing Normality Assumption

Group		N	Skewness			Kurtosis		
		Statistic	Statistic	Std. Error	Ratio	Statistic	Std. Error	Ratio
CALL	KET	30	.151	.427	0.35	-1.430	.833	-1.72
	Pretest	30	-.651	.427	-1.52	-.268	.833	-0.32
	Posttest	30	-.353	.427	-0.83	-1.034	.833	-1.24
	TMA-Test	30	-.471	.427	-1.10	-.960	.833	-1.15
	Self-esteem	30	-.335	.427	-0.78	-.490	.833	-0.59
Traditional	KET	30	.121	.427	0.28	-1.398	.833	-1.68
	Pretest	30	-.680	.427	-1.59	-.183	.833	-0.22
	Posttest	30	-.593	.427	-1.39	-.697	.833	-0.84
	TMA-Test	30	-.593	.427	-1.39	-.697	.833	-0.84
	Self-esteem	30	.752	.427	1.76	.937	.833	1.12

Note. TMA-Test stands for Teacher-Made Achievement Test.

The assumptions of homogeneity of variances, homogeneity of regression slope, linear relationship between dependent variable and covariate will be discussed when reporting the results of ANCOVA and independent t-test.

Pilot Study

The grammar test employed in this study was piloted using a sample of 30 students in order to probe the reliability of the test. The KR-21 reliability index for the piloted data was .92 (Table 4.2).

Table 4.2: Descriptive Statistics, Pilot Study

	N	Mean	Std. Deviation	Variance	KR-21
Pilot Data	30	40.10	9.607	92.300	.92

KET General Language Proficiency Test

The KET general language proficiency test was administered to 100 students. Based on the mean ($M = 36.97$) plus and minus one standard deviation ($SD = 9.47$), 60 students were selected to participate in the main study. The KR-21 reliability index for the KET test was .91 (Table 4.3).

Table 4.3: Descriptive Statistics, KET Test

	N	Mean	Std. Deviation	Variance	KR-21
Prof	100	36.97	9.471	89.706	.91

An independent t-test was run to compare the experimental and control groups' mean scores on the pretest in order to prove that both groups enjoyed the same level of general language proficiency prior to the administration of the treatment. As displayed in Table 4.4, the CALL ($M = 38.03$, $SD = 6.24$) and traditional ($M = 36.20$, $SD = 7.54$) groups showed almost the same means on the pretest.

Table 4.4: Descriptive Statistics, pretest by Groups

	Group	N	Mean	Std. Deviation	Std. Error Mean
Pretest	CALL	30	38.03	6.245	1.140
	Traditional	30	36.20	7.545	1.377

The results of the independent t-test ($t(58) = 1.02$, $P > .05$, $R = .13$ representing a weak effect size) (Table 4.5) indicated that there was not any significant difference between the two groups' mean scores on the pretest. Thus, it can be concluded that they enjoyed the same level of grammar proficiency prior to the administration of the treatment.

Table 4.5: Independent Samples Test, pretest by Groups

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	Df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	2.326	.133	1.025	58	.309	1.833	1.788	-1.746	5.413
Equal variances not assumed			1.025	56.043	.310	1.833	1.788	-1.749	5.415

The results of the independent t-test ($t(58) = 1.02$, $P > .05$, $R = .13$ representing a weak effect size) (Table 4.5) indicated that there was not any significant difference between the two groups' mean scores on the pretest. Thus, it can be concluded that they enjoyed the same level of grammar proficiency prior to the administration of the treatment.

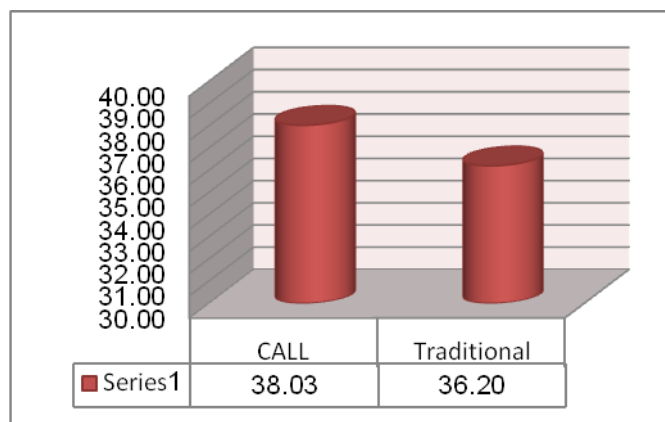


Figure 4.1: Pretest by Groups

Research Question 1

Is there any statistically significant difference between the grammar scores of learners instructed by CALL and those of the learners instructed by the traditional approach?

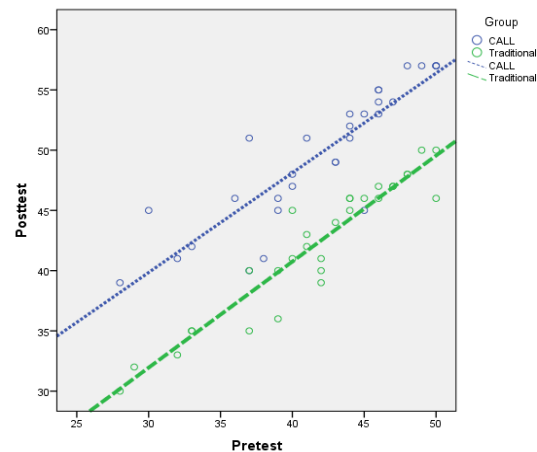
An analysis of covariance (ANCOVA) was run to compare the CALL and traditional groups' means on the posttest of grammar while controlling for possible effects of their entry grammatical knowledge as measured through the pretest. Based on this statement, it can be concluded that there were three variables involved in the present ANCOVA design; groups (independent variable), posttest of grammar (dependent variable), and pretest of grammar (covariate). The ANCOVA aims at comparing the groups on the posttest while controlling for the possible effect of pretest.

The ANCOVA has two main assumptions; homogeneity of regression slopes and linear relationship between the dependent variable and the covariate both of which can be probed only through scatter plots.

Homogeneity of Regression Slopes

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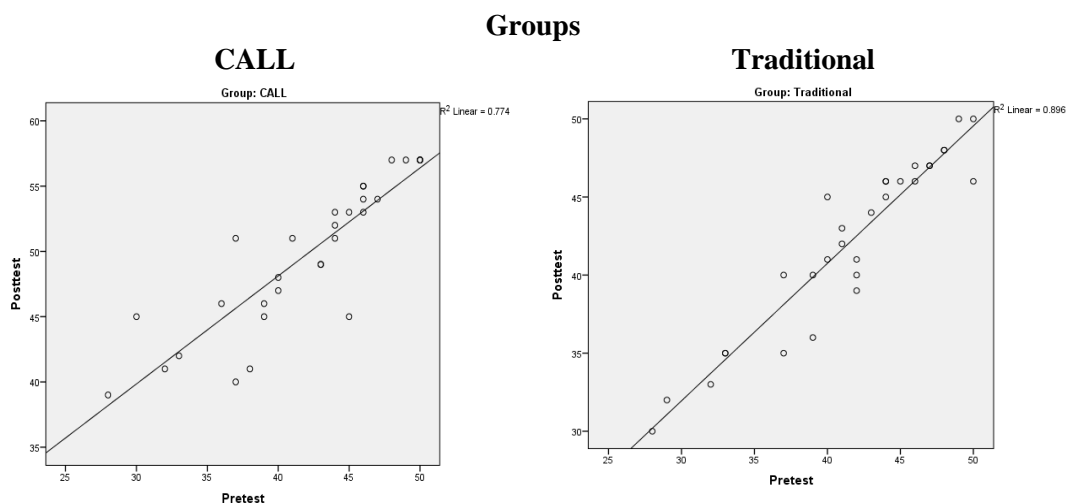
This assumption assumes that the relationship between the dependent variable (posttest) and covariate (pretest) shows the same regression slopes across the two groups. As displayed in Scatter Plot 4.2 the regression line for CALL group (dotted line) and traditional group (hyphenated line) did not show any interaction, i.e. they did not cross each other. Based on these results it can be concluded that the assumption of homogeneity of regression slopes was met.



Scatter Plot 4.1: Homogeneity of Regression Slopes; Grammar Tests by Groups

Linear Relationship between Dependent Variable and Covariate

If the same scatter plot is draw for the two groups separately, the linear relationship between the dependent variable and covariate can be tested by examining the spread of dots around the diagonals. If the dots spread around the diagonal, it can be concluded that the second assumption is also met.



Scatter Plot 4.2: The spread of dots for both groups were close to the diagonals.

As displayed in Scatter Plot 4.3 the spread of dots for both groups were close to the diagonals. Scatter Plot Assumption of Linear Relationship between Dependent Variable and Covariate before discussing the results of ANCOVA it should be noted that the assumption of homogeneity of variances was met (Levene's $F = 1.44$, $P > .05$) (Table 4.6).

Table 4.6: Levene's Test of Equality of Error Variances

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F	df1	df2	Sig.
1.446	1	58	.234

As displayed in Table 4.7 the CALL group (M = 49.52, SE =.42) outperformed the traditional group (M = 42.24, SE =.42) on the posttest of grammar after removing the effect of pretest.

Table 4.7: Descriptive Statistics, Posttest of Grammar by Groups Controlling for Pretest

Group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
CALL	49.524	.423	48.678	50.371
Traditional	42.242	.423	41.396	43.089

The results of ANCOVA ($F(1, 57) = 148.38$, $P < .05$, Partial $\eta^2 = .72$ representing a large effect size) (Table 4.7) indicated that there was a significant difference between the means scores of the CALL and traditional groups after controlling for their entry grammatical knowledge as tested through the pretest. Thus the first null-hypothesis as was rejected.

Table 4.8: Difference between the means scores of the CALL and traditional groups after controlling their grammatical knowledge

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Squared	Eta
Pretest	1530.064	1	1530.064	285.663	.000	.834	
Group	794.796	1	794.796	148.389	.000	.722	
Error	305.302	57	5.356				
Total	129011.000	60					

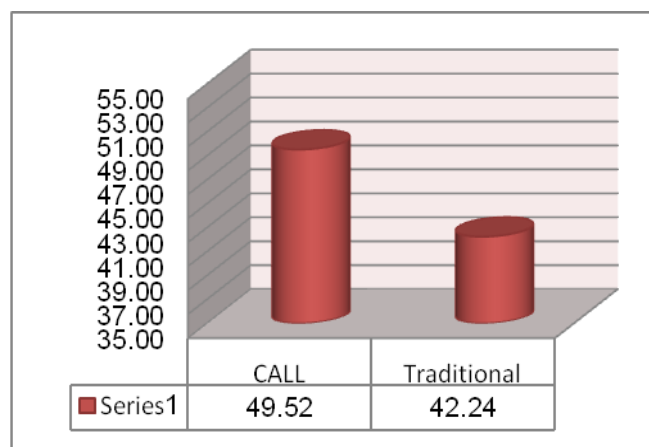


Figure 4.2: Posttest by Groups Controlling for Pretest

Research Question 2

Is there any significant difference between the self-esteem of learners instructed by CALL and that of the learners instructed by the traditional approach?

An independent t-test was run to compare the CALL and traditional groups' mean scores on the self-esteem in order to probe the second research question. As displayed in Table 4.9, the CALL group (M = 26.97, SD = 2.18) outperformed the traditional group (M = 17.60, SD = 3.30) on self-esteem.

Table 4.9: Descriptive Statistics, Self-Esteem by Groups

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	Group	N	Mean	Std. Deviation	Std. Error Mean
Self-Esteem	CALL	30	26.97	2.189	.400
	Traditional	30	17.60	3.307	.604

The results of the independent t-test ($t(58) = 12.93$, $P < .05$, $R = .86$ representing a large effect size) (Table 4.10) indicated that there was a significant difference between the two groups' mean scores on the self-esteem. Thus, it can be concluded that the second null-hypothesis was rejected.

Table 4.10: Independent Samples Test, Self-Esteem by Groups

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Equal variances assumed		2.712	.105	12.93	58	.000	9.367	.724	7.917	10.816
Equal variances not assumed				12.93	50.31	.000	9.367	.724	7.912	10.821

It should be noted that the assumption of homogeneity of variances was met (Levene's $F = 2.71$, $P > .05$). That is why the first row of Table 4.10, i.e. "Equal variances assumed" was reported.

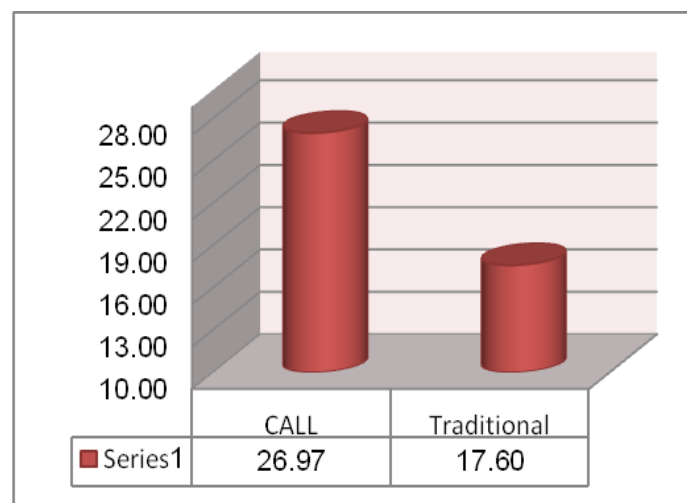


Figure 4.3: Self-Esteem by Groups

Research Question 3

Is there any significant relationship between the learners' self-esteem and grammar proficiency?

The results of the Pearson correlation ($r(58) = .43$, $P < .05$ representing a moderate to large effect size) (Table 4.11) indicated that there was a significant relationship between the learners' self-esteem and grammar proficiency. Thus, the third null-hypothesis was rejected.

Table 4.11: Pearson Correlation, Grammar Proficiency with Self-Esteem

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		Self-Esteem
Grammar	Pearson Correlation	.436**
Proficiency	Sig. (2-tailed)	.000
	N	60

***. Correlation is significant at the 0.01 level (2-tailed).*

CONCLUSION

The purpose of this study was to investigate the effect of computer-assisted audio-visual activities on English grammar learning and self-esteem among the first grade high school students. The experimental group was taught grammar by CALL method and the control group received traditional method in teaching the same grammatical structures. The data obtained from the posttest and teacher-made achievement test revealed that the students' grammatical ability improved as a result of using the CALL-based grammar teaching, and there was a significant difference between the learners instructed by CALL and those instructed by the traditional approach. It seemed clear that the participants in this research had learned grammar points through CALL better than those who were taught by traditional approach. Grammar instruction is often regarded as the unattractive component of the language by the language learners. One of the best solutions to change this is to create attractive learning tool that acts as a stimuli for language learning (Taylor, 1980). CALL-based programs most of the time seem attractive to language learners especially to beginners. The fun factor is counted as a valuable characteristic of CALL (Warschauer & Healy 1998).

The goal of the second research question was to explore the effects of both CALL and traditional teaching methods on learners' self-esteem. The results of the independent t-test indicated that there was a significant difference between the two groups' mean scores on the self-esteem.

It is clear from the studies that using CALL is more useful and helpful than using the traditional methods. The use of CALL also as a complement to traditional, teacher-centered instruction proved to produce achievement effect superior to those obtained with traditional instruction alone (Ghorbani and Marzban, 2013).

The third goal was to see if there was any significant relationship between the learners' self-esteem and grammar proficiency. According to the statistical findings, the results of the Pearson correlation ($r(58) = .43$, $P < .05$ representing a moderate to large effect size) indicated that there was a significant relationship between the learners' self-esteem and grammar proficiency.

According to Iravani and Tajik (2012), Practical implications of such studies suggest that before using CALL the researcher should be aware of students' ability to use the computer. From the motivational view, students are naturally motivated because they will not have the monotonous situations that they experienced in traditional classes. As a result, teaching through computer encourages them, and they will have a self-endurance to learn.

The statistical findings of the study showed that using CALL in teaching grammar had a great effect on the students' grammar learning. It seemed clear that the participants in this research had learned grammar points through CALL better than those in traditional way. Rabab'ah and Seileek (2007) stated that language teachers and language learners believe that CALL is very useful and helpful in raising the level of proficiency in the target language, and that a foreign language should no longer be taught severely by the talk and chalk grammar-translation method. The Ministry of Education has just integrated this technology into the English language curriculum, but at a very limited scale. Teachers use audio-visual CDs which were developed as part of the English language curriculum to expose the learners to English as it is spoken by its native speakers. So, it can be concluded that CALL helps grammar learning and also CALL increases learners' self-esteem; so, it can be said that there is a direct relationship between learners' grammar proficiency and self-esteem.

Research Article

Ghorbani and Marzban (2013) stated that one of the prescribed ways of teaching English grammar in Iran has been traditional way of teaching grammar which has a lot of disadvantages. Because the role of chalkboard as a means of grammar presentation is old-fashioned, new ways of teaching grammar are used around the world.

There are many different definitions for grammar. Summarizing them, the researcher can compose the following definition of grammar: it is a basis for building language which controls the composition of its morphology, vocabulary, and its expressions to enable the individuals to deliver a clear message, understand and convey meaning correctly, whether in writing or orally.

Since the appearance of language laboratories, technology has always been regarded as a new panacea for language teaching and learning (Ghorbani and Marzban (2013).

In psychology, the term self-esteem is used to describe a person's overall sense of self-worth or personal value. Self-esteem is often seen as a personality trait, which means that it tends to be stable and enduring (Amell, 2012).

In this research, Computer assisted language learning (CALL) is the independent variable, and the grammar learning and self-esteem are two dependent variables to be investigated.

The researcher attempts to explore the effect of computer-assisted audio-visual activities on the learning of English grammar by the first grade high school students in Tarom and also wants to see whether computer-assisted language learning audio-visual activities can increase students' self-esteem or not.

The researcher claims that CALL has the potential to provide an alternative, or even a complementary, option to enhance the quality of teaching and learning English grammar. Therefore, it is worth investigating the effect of CALL audio-visual activities on the grammar learning of learners.

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