**The Effect of CALL Programs on Learning Grammatical Features by the Third-grade Iranian Junior High School Students**

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**ABSTRACT:** To examine the effects of CALL programs on learning grammatical structures is the main concern of the present paper. So, this paper seeks to explore the relationship between CALL programs and grammar learning among the Junior High School students. The participants of the study were sixty students of Junior High School grade three who were assigned equally into two groups (Experimental & Control group). They were exposed to different kinds of treatment. The Experimental group learned grammar with the help of CALL programs and the Control group learned it in a traditional chalk and board approach. The treatments lasted for sixteen sessions and then a post-test and a questionnaire administered to evaluate the participant’s proficiency and their attitude towards CALL sessions. Moreover, after the interval of three weeks a delayed post-test was administered to check the participants’ recall of grammar knowledge. The results showed that in all post-tests covering the structures in question, the CALL-based group scored significantly higher than the traditional group. Moreover, in the delayed post-test, CALL-based group showed significantly higher scores than the traditional group. In addition, in a questionnaire which was filled out by CALL-based group to explore their attitudes towards CALL lessons, they announced their highly positive attitudes towards CALL lessons.

**Keywords:** Computer-Assisted Language Learning (CALL), Traditional approach, Grammatical knowledge, SHAD software, attitude

**1. Introduction**

CALL is an acronym for computer-Assisted Language Learning. It originates from CAI (Computer-Assisted Instruction), a term that was first viewed as an aid for teachers. Since the 1960s, CALL has experienced decades of evolution. In the beginning, CALL was known as a program that ran on mainframe computers to provide language learners with drills and practice (Behaviorist CALL). CALL has further evolved with the development of technologies; CALL can be viewed in a very specific way as being the software tools designed to promote language learning (Warschauer, 2005). In general, though, CALL is now viewed in a much broader way (Egbert, 2005). For example, Levy (1997; cited in Jarvis, 2009) perceived CALL as an interdisciplinary issue which entails strategies for managing the change alongside the knowledge of the use of computers for educational purposes, and language teaching methodologies.

Computer is such a great invention for education (Egbert, 2005). In foreign language teaching, computer can be used to facilitate the learning of all language skills in accordance with the teaching and learning approach. For example, Many of the early disk-based CALL programs focused only on grammar or vocabulary development because such applications at that time were relatively easy to schedule on computers but today, authoring systems such as *Hot Potatoes* (http://hotpot.uvic.ca) from the University of Victoria have madeit easy for language teachers to construct their own grammar exercisesusing multiple choice, gapped sentences and matching formats in addition to these more traditional types of programs, alternatives such as Storyboard, in which an entire text is deleted and must be reconstructed. Although not specifically targeted at grammar, such text reconstruction programs do foster grammar awareness. Grammar checkers have also been explored as aids to improve grammatical competence, though they need to be used with an understanding of their limitations (Timucin, 2006). ICALL (Intelligent CALL) programs have also been shown to be effective in assisting grammar learning when used with particular structures so that the range of errors can be anticipated and the feedback appropriately targeted (Dangsaart, Naruedomkul, Cercone, Booncharoen & Sirinaovakul, 2009).

The present paper aims at investigating the effects of CALL programs on learning grammatical structures by the third grade of Junior High School students in Iran. In this regard sixteen CALL sessions were applied to cover all the materials needed to conduct the research. The learners had to practice the structures through the computer screen, listening to the descriptions presented by the software (SHAD), reading the samples, searching through the web sites for the structure in each session and practicing it, and at last doing the exercises on the screen, on the other hand, the traditional group learned the same structures without the presence of computers. However, both groups were obliged to take part in each session, if a participant missed a session or sessions, the researchers tried to make up it/them for him. They had to review at home whatever had been covered in each session. The application of computer to develop grammatical competence in establishing a connection between CALL and syntax acquisition via an experimental method based on the post-modern theoretical thinking about learning structure and to create an environment which is maximally conducive to learning new structures and also find out effective ways of using CALL to learn the grammar. Therefore to achieve the goal of the present paper the following research questions were put forth.

Q1. Is there any relationship between the application of CALL programs to teach grammar to the elementary L2 learners and their grammatical knowledge?

Q2. Is there any relationship between the application of CALL programs to learn grammar and the EFL learners’ longer retention of grammatical knowledge?

Q3**.** How is students’ attitude towards computers and the use of computer programs in grammar instruction?”

**2. Review of literature**

With personal computers and internet accessibility becoming affordable to the general public, the role of ELT practitioners is evolving from being the knowledge provider to being the learning manager. Advances in technology have introduced innovative learning systems like WebCT and e-Learning, which are being introduced in institutions of higher learning to keep in pace with developments for lifelong learning. Many studies have attempted to assess the impact of CALL on learning language. One good application of computer-based technology is within educational settings (Kim, Jain, Westhoff, & Rezabek, 2008). Using computer-based technology in educational settings helps students in their learning (Davis, 2009). Teachers also improve their instruction by using a variety of technology resources such as the Internet, multimedia CD-ROMs, audio and graphics. Also computer technology provides teachers and students with a whole new interactive learning environment to share ideas, information, images, animations, audio or video (Preston, 2008). Computer-based instruction has been challenging traditional teaching and learning processes. The role of these technologies in language learning and teaching is called Computer- Assisted Language Learning (CALL).

CALL is a language learning and teaching approach in which the computer is used as a tool for presentation, assisting students, and evaluating learning material, and has an interactional element. Levy (1997, cited in Jarvis, 2009) emphasizes that CALL is more extensively defined as the search for computer applications in language teaching and learning and research on the matter. CALL adapts the research findings of second language acquisition, sociology, linguistics, psychology, cognitive sciences, culture examinations, and natural language processing to second language pedagogy and relates them to investigation into information processing, artificial intelligence, and telecommunication. Thus, the progress of language learning and teaching processes is achieved. From its beginning till today, CALL developed in parallel with the facilities provided by computer technology. As expressed by Davis (2009) the importance of computer technologies in foreign language learning and teaching has been established by many people. Language teachers and administrators realize the tendency towards CALL; also, students demand computers through the facilities provided them for language learning. CALL has been taking advantage of advanced technological facilities to create the highest interactive learning environments for activities that develop listening, speaking, reading, and writing skills. Moreover, the human interaction is with a native speaker, satisfying Vygotsky's (1978) criterion of interaction with a more able peer, and allowing the student to move through his or her ``zone of proximal development,'' a term referring to the area in which a student may succeed only with help. It is within this zone, according to Vygotsky, that the bulk of learning takes place. Moreover, CALL generally increases students’ levels of motivation, and anything that increases motivation will be helpful to the learning process (Manochehri & Young, 2006). Ellis (2009) also emphasizes that motivation is an important factor in language learning. When looking at motivation in the field of language learning, consideration is given to the difference between foreign and second language learning (Brown, 2007).

2.1. Participants

Sixty four students enrolled in the third grade of Junior High School in Ershad Junior High School in Shirvan, Iran, during the fall 2009 (1388) were the participants of this study. As there were three classes of third grade students available during the intended academic year to conduct the research, 64 students were randomly selected, using the simple random sampling technique (Ary, Jacobs, & Razavieh, 1996). A pre-test containing the teacher-made test items was administered to the participants a day before the treatment in order to determine how well the participants knew the structures and the English language grammar before the treatment.

The results obtained showed that the two groups were similar in their level of competence in the targeted Language grammar, because almost all the participants were comparably homogeneous. The range of scores differed from 6-11 out of twenty five. In this step, three participants were put away from the study due to their higher scores in the pre-test and one because of the school transfer.

The remaining part included only sixty students. Then, they were randomly and equally assigned into two different groups (each group consisted of 30 students). The groups included experimental group, and a control group. A crucial point to be reminded is that before implementing the teacher-made post-test, it had undergone the process of pilot-study for the reliability and validity investigation. In detail one separate group of twenty students in another school, had been the volunteers for the study to investigate the reliability and the validity of the teacher-made tests. The Reliability of the test scores was estimated through Kuder-Richardson 21 (KR-21) formula that was found to be%78 for multiple-choice test and for cloze-test it was%66.

2.2. Material

The course materials used in this research for the treatments included SHAD software program, textbook (Right Path to English III. by: P. Birjandi & A. Soheili), A workbook (Khatesefid by: S.H Ghoreishi & M.Tavanaie), Power Point Presentation (P.P.P), and World Wide Web (Internet). The materials used for data collection included tests (pre-test, post-test, and delayed post-test), a questionnaire and the direct observations. Moreover, the participants in the experimental group were using CALL programs while in the classes where the control group used to attend; there was no trace of new technology of any sort at all.

2.3. Design and procedure

Although it has been stated by some scholars that "true experimental studies are relatively rare in applied linguistics" (Hatch and Lazaraton, 1991, p. 95), the proposed study, fairly meeting the requirements of true experimental studies (that is, using a control group, random selection, random assignment of students to control and experimental groups, etc.) may be considered an experimental study, a subtype of the research design labeled as the "Control Group Pre-test-Post-test" by Hatch and Lazaraton (ibid., p. 97).

To conduct the study, from among the whole accessible population, after administering the pre-test a number of 60 students were randomly selected; then, the participants were randomly divided into one of the following two conditions, and while attending different classes they were given the same grammar material and textbook and were taught by the researchers.

1. The first group, that is, the experimental group, was taught through the CALL programs. The learners practiced the structures on the computer screen, listened to the descriptions presented by the software (SHAD), read the samples, searched through the web sites for the structure in each session and practiced it, and at last did the exercises on the screen. The traditional group learned the same structures without the presence of computers. Both groups were obliged to take part in each session. If a participant missed a session or sessions, the researchers tried to make up it/them for him. They had to review at home whatever had been covered in each session. The application of computer to develop grammatical competence in establishing a connection between CALL and syntax acquisition via an experimental method based on the post-modern theoretical thinking about learning structure and to create an environment which is maximally conducive to learning new structures and also find out effective ways of using CALL to achieve this goal was the purpose of the present study.

2. The second group, that is, the control group, was instructed and encouraged to learn through listening to the teacher and reading their books, and the teacher himself had been the modeling machine of drilling; that is, the control group was provoked to attempt to "follow" their teacher's instructions and modeling, this group of participants had been doing exercises in class using chalk and board with the help of their teacher and the presence of no computer. The teacher had been at the center of the class and he delivered whatever information that was required.

The pre-test, that is, the first grammar knowledge test administered to all the participants during the first week of the experiment, before the treatments started, in order to obtain a measure of their relative grammar knowledge, and to ensure that the mean difference between them was not significant.

During the next sessions of the experiment, the two groups were given the course content, and the experimental group received the instruction by applying the SHAD software and the P.P.P., On the other hand, the control group was asked not to apply any CALL program and was deprived of any new technologies in their classes to learn structure.

After the participants in the experimental group were given enough opportunity to deal with the grammatical features by applying the CALL programs, at the end of the treatment, all the subjects were given the grammar achievement post-test (i.e., T2 &T3, T4) constructed by the researchers based on the content of their textbook material taught. After the interval of three weeks, the two groups (X1& X2) were given the parallel form of the immediate post-tests (T5 & T6, T7) as the delayed post-tests to examine the recall rate of the grammar knowledge by the two groups.

2.4. Survey questionnaire

A Likert scale questionnaire including 10 statements was administered after the last session. It intended to assess the experimental group’s attitude towards CALL programs approach. It was based on the five point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). This Likert scale questionnaire was adopted and modified to adapt it to the new situation from F. Chenu; F. Gayraud; B. Martinie; W. Tong (2007), this questionnaire was designed and used by the group to examine the attitude of the participants towards CALL sessions and the computer programs.

2.5. Data analysis

In all measurements, the two groups of the study (A & B) were assessed twice: one was immediately after the treatment, and the second with the interval of three weeks, to determine the long-term retention effect of the two treatment approaches (Harris, 1969, cited in Ghabanchi & Anbarestani, 2009). Moreover, participants had not been informed about the delayed post-test to prevent them from further learning, which might probably invalidate the tests results. A Likert Scale survey questionnaire of ten items was also administered to evaluate the attitude of the experimental group towards CALL sessions, the results of this survey is coming at the last section of this part.

**3. Results**

These abbreviations are used in the tables of results standing for the meanings in the parentheses:

Group A: (Experimental group)

Group B: (Control Group)

T1: (Immediate post-test)

T2: (Immediate multiple-choice test)

T3: (Immediate cloze-test)

T4: (Delayed post-test)

T5: (Delayed multiple-choice test)

T6: (Delayed cloze-test)

N: (Number of participants)

A-B= X (Subtraction of the scores of Experimental & Control groups)

 Table1

Representative Data of the Performance of Group A in All Tests

|  |  |  |
| --- | --- | --- |
| Delayed Post-test | Post-test | Time |
| T6 | T5 | T4 | T3 | T2 | T1 | Test |
| 7.066 | 10.566 | 17.4667 | 6.666 | 10.766 | 17.433 | Mean |
| 1.837 | 2.329 | 3.4813 | 2.682 | 3.588 | 5.468 | Std. Deviation |
| 10.00 | 15.00 | 25.00 | 10.00 | 19 | 25.00 | Maximum |
| 2.00 | 7.00 | 11.00 | 1.00 | 3.00 | 8.00 | *Minimum* |
| .335 | .425 | .6356 | .4897 | .6551 | .998 | *Std. Error* |
| 3.375 | 5.426 | 12.120 | 7.195 | 12.875 | 29.909 | *Variance* |

 Table 2

Representative Data of the Performance of Group Bon All Tests

|  |  |  |
| --- | --- | --- |
| Time | Post-test | Delayed Post-test |
| Test | T1 | T2 | T3 | T4 | T5 | T6 |
| Mean | 12.466 | 9.433 | 5.800 | 11.60 | 9.133 | 5.366 |
| Std. Deviation | 4.066 | 2.344 | 2.074 | 3.644 | 2.129 | 1.771 |
| maximum | 23.00 | 15.00 | 9.00 | 19.00 | 13.00 | 8.00 |
| Minimum | 5.00 | 3.00 | 2.00 | 5.00 | 4.00 | 2.00 |
| Std. Error mean | .7423 | .4280 | .3787 | .665 | .388 | .3233 |
| Variance | 16.533 | 5.495 | 4.303 | 13.28 | 4.533 | 3.137 |
|  |  |  |  |  |  |  |

Table 1 and 2 are displaying all the data related to group A and B in all the measurements, including the mean, standard deviation, maximum and minimum scores, standard error of the mean, and the variance in each test individually. The comparison of these scores comes in the following pages.

 Applying the tobs formula, the researchers calculates the *t* value according to tables 1 and 2, and inserting those scores into the *T-test* formula the following results will be obtained.

 Table3

 Matched Pair T Value of Two Groups

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sig.(2tailed) | df.N-1 | *t* value | 95% ConfidenceInterval of the Difference | Std. Error Mean | Std.Deviation | Mean | Groups |
| Upper | Lower |
| ***2.045*** | 29 | ***3.327*** | 8.019 | 1.913 | 1.492 | 8.176 | 4.966 | A & B |

 Table 3 displays the computations of the ***t*** value and the information related to the differences between the means, standard error of the means, and the standard deviation, it also shows the degree of freedom and the level of significance of the N-1=29 in two tailed at 0.5 level.

The number of samples in each sample group is thirty, which is twenty-nine in one degree of freedom, and the level of significance for twenty-nine in the table of critical value of *t* is *2*.*045.* The *tobs* in this test for the two groups is *3.327*, which is higher enough above the *t* critical.

In table 4, it could be observed that the difference between the mean of the two groups in immediate multiple-choice test (T2) and the cloze-test (T3) is positive, which shows the distance of he mean score between experimental and control group, this implied that experimental group had acted too much better than control group in immediate post-tests.

There is also a similar relationship going on between the two groups according to their standard deviations, because in this case also group A is 0.900275 scores higher than group B. By looking at the standard error of the means and the variance, we will also find out the same relationship like before, for example group A is higher than group B in its standard error of the mean, and with a variance of 12.875, group A is 7.38 scores higher than group B. The same relationship can also be observed between the two groups in T3 (table 4).

 Table 4

 Differences and the Subtraction of the Scores between Groups A & B in T2 & T3

|  |  |
| --- | --- |
| **T3** | **T2** |
| A-B=X |  B | A | Statistics | A-B=X |  B |  A | Statistics |
| 0.866 | 5.800 | 6.666 | Mean | 1 | 9.433 | 10.433 | Mean |
| 0.607 | 2.074 | 2.6822 | Std. deviation | 0.900 | 2.344 | 3.244 | Std. deviation |
| 0.110 | .378 | .4897 | Std. Error mean | 0.164 | .4280 | .592 | Std. Error mean |
| 2.892 | 4.303 | 7.195 | Variance | 7.38 | 5.495 | 12.87 | Variance |

Table 5 uses the data displayed in tables1 and 2 related to the delayed post-test, to calculate the ***t*** value, level of significance, and the degree of freedom for T4.

 Table 5

 Matched Pair T Value.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sig. 2tailed | df.N-1 | **t value** | 95% Confidence Interval of the Difference | Std. Error Mean | Std. Deviation | Mean | Group |
| Upper | Lower |
| **2.045** | 29 | **6.609** | 7.682 | 4.051 | .887 | 4.861 | 5.866 | A & B |

 Table 5 displays the t value of T4 for the two groups which is6.609. In this test, the level of significance with one degree of freedom is 2.045.the left side of this table shows the paired differences in mean; standard deviation, and the standard error of the means. The t value for the two groups (A & B) in this test is higher than the level of significance at 29.

 Table 6 below shows the similar relationship between the two groups as it was displayed in table four, but in this table the data acquired from applying the delayed post tests is displayed. Such as table four in this table also you could observe that the experimental group under the effect of CALL programs had been able to act much better than the control group.

The main issue which is followed by doing T4, is to test if applying CALL programs influences the learner’s recall rate or not. Moreover, it must probably have been because of these programs that group A has done better in recalling the grammar knowledge.

 Table 6

 Differences and the Subtraction of the Scores between Groups A & B in T5 & T6**.**

|  |  |
| --- | --- |
| T6 | T5 |
| A-B=X | B. | A | Statistics | A-B=X | B | A | Statistics |
| 1.7 | 5.366 | 7.066 | Mean | 1.433 | 9.133 | 10.566 | Mean |
| 0.900 | 1.771 | 1.837 | Std. deviation | 0.200 | 2.129 | 2.329 | Std. deviation |
| 0.164 | .3233 | .335 | Std. Error mean | 0.036 | .388 | .425 | Std. Error mean |
| 0.238 | 3.137 | 3.375 | Variance | 0.893 | 4.533 | 5.426 | Variance |

In acknowledging all the previous notations on the performance of the two groups, it must be added here that all the positive scores (+) in tables 7 and 8 computed in column A-B=+X show that, group A had been relatively good in acting on delayed cloze-test.

In this section the descriptive statistics of the questionnaire representing the participant’s attitude towards CALL programs and computer application for learning grammar are discussed.

After the treatment ended and all the tests were administered, a questionnaire was administered to assess the attitude of experimental group towards CALL programs and learning grammar in computer site.

In this questionnaire 97.2%percent of the participants agreed that it was interesting to use computer to learn grammar. 98.6% percent of the participants have declared that they prefer to use CALL to learn grammar. 87.2% percent of them have claimed that it had been easy for them to operate computers. It was comfortable for 84.6% percent of the participants to do exercises in computer environment. Units and the exercises were comprehensible for 92.6% percent of them and 95.2% percent of them had studied all the lessons. All the exercises had been done by 96.6% percent of the participants. 88% percent of the participant had enough time to do the exercises according to their claim.99.2%percent of the participants have done whatever the teacher had suggested. 64% percent of the participants were not satisfied with the site user’s (supervisor’s) conduct. The least score in this issue is related to the last statement, which had been the site user and his behavior towards the learners and the participants.

The overall means of the scores in this questionnaire are also above four which is a satisfying result and is therefore showing the positive attitude of the participants towards CALL programs to learn grammar, except for the last statement (10), by a mean of 3.20 that shows the less satisfaction than the other statements. But, generally this score is also above the average mean and is worth to take into consideration.

**4. Discussion**

The findings of this study are all based on the 95% confidence interval. In other words, all of the significant findings reported in chapter four were significant at the 0.05 level (i.e., Alpha=0.05). One of the major aims of this study was to determine if the application of CALL programs can affect elementary L2 learner’s grammar knowledge and help them learn better. The findings of this study indicated that the participants’ performances in the multiple-choice test and the cloze-test items in the post-tests were a function of using computer programs to learn grammar. The performance of the experimental group who were learning grammar in a CALL-based approach showed a big difference with the performance of the control group. As a matter of fact, the group of learners under the heading of experimental group who were practicing grammatical issues with the help of computer programs outperformed the group of learners practicing the same issues in an ordinary traditional approach in the post-test. After sixteen sessions to practice grammar using computer technology, experimental group took post-test including multiple-choice and cloze-test items. In this test, the experimental group was more successful than the second group of learners who were studying the same content without the presence of computer technology in their classes.

A second goal of the study was to determine if there was any meaningful relationship between CALL program application and the test results of both experimental group and the control group in their recalling of the information after the interval of three weeks. However, the existence of this kind of relationship cannot be taken for granted in the context of grammar teaching. The results of the present study indicated that participants’ test performance after the interval of three weeks was a function of their using computer to learn grammar. In this regard, comparing the test performance of the two groups (experimental & control group) leads us to such a conclusion. In this context, the experimental group who was learning grammar with the help of computer was able to recall the learned knowledge longer than the control group. In other words, the group of participants who were learning grammar in a traditional (chalk and board) approach performed poorly than the experimental group in the delayed (recall) post-test.

The third objective of the present study was to discover the learners’ attitude towards CALL programs and their application in grammar learning. The overall findings of this study may imply that the students’ attitude towards computer technology and its application in grammar learning was positive, but the way of admitting to each statement in the questionnaire differed from one learner to another. The first two statements in the questionnaire examine the students’ inclination towards CALL programs and their application in language learning, which almost all the learners strongly agreed with. The next three statements were supposed to get the information about the learners’ ability in doing the exercises, their ability in running the computer and the comprehensibility of the units, to which also many of them had answered positively. The next two statements and the statement number nine also were asking about the learners’ involvement in the lessons in class and at home, to which they have shown their positive remarks. But to the last statement which was related to the site user’s attitude towards learners and his actions towards them, they have marked it the least score and it shows that the learners should not have been very satisfied with the site user’s behavior towards them. However, the overall results of this questionnaire which was supposed to examine the learners’ attitude towards CALL programs showed that the computer usage and its application to teach grammar was in line with the learners’ interest and affected their level of grammatical proficiency, as a result of this they had got a positive attitude towards CALL programs. To cut the story short, this study showed that CALL approach has an objective over traditional chalk and blackboard method in results and the recall rate.

**5. Conclusion**

In this study, the CALL condition has proved to be more efficient than traditional chalk and blackboard instruction for the learning of English grammar by non-native language learners. Nagata (1996) and Dunkel (1991) insist that the advantages of CALL that they observed are not due to the medium *per se*, but that they are due to the quality of the messages produced by the medium. However, in this study, the only difference between the two experimental conditions and the control group was the medium, which can be relevant especially if the level of proficiency is taken into consideration. Indeed, this study is focused on the elementary level students (junior high school). These results are consistent with Williams and Williams (2000) who observed an improvement with ESL low level students when they use a computer, these results shed light on the importance of the modality *per se*, spoken or written. It may be a side effect of the status of writing in the two approaches, while traditional instruction implies only on written and spoken language, the CALL device that the author used relied on written, spoken, animation, and the interactive language. Written language lightens online processing constraints, enabling the learner to go at his own pace. In this study, CALL systems proved to be as efficient as to help learners to learn and act better and also recall more than the participants learning in traditional approach.

 In this case, the written, spoken, interactive and animation modality were used, but some other CALL systems use dual mode presentations, because in multimedia educational environments, it has frequently been assumed that presenting the same material in both modalities would benefit learning and understanding (Kalyuga, Chandler, & Sweller, 2004).

Hence, to compare efficiently traditional instruction and CALL approach, one should take care that both methods use the same modalities. If modalities of presentation are kept constant, the question then is to know whether a CALL instruction using only the written modality has an objective advantage over a traditional approach. A possible difference might involve attitudes and motivation.

In the present study, and in line with what could be expected from the literature, a positive correlation between positive attitude and successful outcomes was observed. A great emphasis is put on the relationship between positive attitudes and learning achievement in the literature, this study does confirm such a correlation. In conclusion, this study shows that CALL approach has an advantage over traditional chalk and blackboard method in results and the recall rate. Moreover, it shows that when the attitudes of the learners are positive the scores of the learners in CALL would be higher than the traditional approach of instruction.

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