A Study of Effectiveness of a Computer Assisted Language Learning (CALL) Programme in English Language Teaching at primary level

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Abstract:
This study aims at investigating the effect of a Computer Assisted Language Learning Programme on Gujarati students learning English at primary level. The sample of the study consisted of 140 students randomly selected from two schools and assigned to experimental and control groups. Data were collected within a week period via a pre-posttest design. The findings of the study indicated that using a Computer Assisted Language Learning Programme in English Language teaching alongside the traditional method has a positive effect on the experimental group students' achievement and the winds of change are blowing in English language teaching (ELT) is an instrument of change at the same time, it is itself changing constantly due to research and innovations. In the sphere of teaching and learning of second or foreign language, quite a number of approaches and methods are available.

Keywords: *Computer Assisted Language Learning (CALL), English Language Teaching (ELT), Primary Students*

1. Introduction

English is so inevitable today that one cannot afford 'not to know` it in the digital era of the $21^{st}$ century as `not knowing English` results into innumerable disadvantages. English in India enjoys the place of one of the official languages and hence teaching-learning of English has become necessary in the present era more than ever before. The mushrooming of English medium schools and spoken English classes all over the country proves that people in India are now far more aware in terms of English as a tool to win the battle of advancement and development.

In terms of practical classroom activities to exploit the Internet, if teachers have access to several internet-linked computers for use with these classes and nowadays Information Technology and computers have enriched the teaching-learning process. They have a great potential for teaching at all levels. They have brought a sea change and innovativeness in teachers to use them for teaching and learning. English and computer both are vital in modern time, as both open the gate for opportunities of the world even English language is the language of computer. Computer helps in improving English language as well as they make classroom learning interesting and lively. In ELT, computer can play very vital role as it can work with the imagination of students and teachers.

2. Objectives of the Study

1. To develop a Computer Assisted Language Learning Programme (CALL) in English Language Teaching.
2. To try-out a Computer Assisted Language Learning Programme (CALL) in English Language Teaching.
3. To compare the mean scores of achievement of the students of Computer Assisted Language Learning Programme (CALL) and Traditional Teaching.

4. To study the influence of sex on the mean scores of achievement of the students of Computer Assisted Language Learning Programme (CALL) and traditional Teaching.

3. Hypotheses

Ho$_1$: There will be no significant difference between the mean scores of achievement of the students of the experimental and control group.

Ho$_2$: There will be no significant difference between the mean scores of achievement of the boys of the experimental and control group.

Ho$_3$: There will be no significant difference between the mean scores of achievement of the girls of the experimental and control group.

Ho$_4$: There will be no significant difference between the mean scores of achievement of the boys and girls of the experimental group.

4. Population and Sampling Procedure

In the present research, the researcher was interested in measuring the effectiveness of a Computer Assisted Language Learning in English Language Teaching in the students of standard VIII of Gujarati medium schools became the population for the present research.

For the present research, 140 students studying in standard VIII of L.P.Savani School and P.S.J.P High School, Varachha were selected randomly as a sample for the study. The researcher made chit of the students and asked one five year boy to open it and distributed them one by one into experimental group and control group. From these schools, 70 students (35 boys-35girls) were selected for an experimental group and 70 students (35 boys-35girls) were selected for a control group.

5. Limitation of the Study

The experiment was limited only for the students of standard VIII in the subject of English of Surat district in Gujarat state.

6. Type of Research

As the present investigation was of measuring the effectiveness of new teaching method, i.e. Computer Assisted Language Learning programme in English Language Teaching, the type of present investigation was an action research. But as the findings were generalized, the investigation was applied research.

7. Research Method

For the present study, the investigator had selected the experimental method, and in it, the investigator selected the experimental design - "Randomized Control Group pre-test posttest design" for evaluating the effectiveness of the Computer Assisted Language Learning programme.

8. Research Design

The study was concerned with the measurement of effectiveness of Computer Assisted Language Learning on achievement scores on post test. The investigator had selected the experimental design "Randomized Control Group pretest - posttest design" for evaluating the effectiveness of Computer Assisted Language Learning programme. The design can be presented as a general format as follows:

9. Instruments of the Study
- Computer Assisted Language Learning (CALL) programme
- Sub Criterion Test as Pretest
- Main Criterion Test as Posttest

9.1 Procedure of developing a CALL programme

First of all, the researcher decided the general objectives and select the research problem and dialogues for the programme and recorded the vedio with two English language experienced persons whose English pronunciation is clear, exact and moreover concentrate on tone, rhythm, pitch and then expert of the field were consulted and as per the opinions of the experts, the researcher did the pilot testing. The pretest - posttests' format was same but the content was different which was based on a CALL programme. The agreement of view expressed by the expert after the logical evaluation of the test items were taken as the index of the validity of the tool. Then the researcher did pilot testing on twelve students (selected on the basis of last year marks of annual exam – high, medium and low)of standard VIII of Navi Pardi school, Kamrej and evaluating the process, some corrections has been done and finally the field experiment did in two schools on 140 students studying in standard VIII of L.P.Savani School and P.S.J.P High School, Varachha, Surat.

10. Analysis and Interpretation of the Data

The statistical techniques were used to interpret the data. This helped in drawing conclusions regarding research hypotheses.

Table 1:Analysis and Interpretation of mean scores of achievement of the students of the experimental and control group by correlated t-value (Hypothesis No.1)

Group	N	Mean	SD	t value	Significant level
Experimental Group	70	15.37	4.33	4.50	0.01
Control Group	70	12.26	3.81		

From table 1, it is obvious that the mean scores of achievement in the criterion test are 15.37 and 12.26 for the experimental group and control group. The t value is 4.50 which is higher than the theoretical value 2.58. So gained t value is significant at 0.01 level. So it can be concluded there is significant difference between both the groups in the posttest. And therefore the null hypothesis No.1 viz. "There will be no significant difference between the mean scores of achievement of the students of the experimental and controlled group" is rejected at 0.01 level of significant. It means that the experimental group has scored well at the posttest stage. So it can be concluded that the students have well understand which was learnt through treatment.

Table 2: Analysis and Interpretation of mean scores of achievement of the boys of the experimental and controlled group by correlated t-value (Hypothesis No.2)

Group	N	Mean	SD	t value	Significant level
Experimental Group(Boys)	35	15.60	3.81	3.44	0.01
Control Group(Boys)	35	12.46	3.84		

From table 2, it is obvious that t value for the boys of experimental group is highly significant at 0.01 level, which shows that there is a significant difference between the mean scores of achievement of the boys of both the groups. And therefore the null hypothesis No. 2 viz. **"There will be no significant difference between the mean scores of achievement of the boys of the experimental and controlled group"** is rejected at 0.01 level of significant. It means that the experimental group has scored well at the posttest stage. So it can be concluded that the boys of experimental group has well understand which was learnt through treatment.

Table 3: Analysis and Interpretation of mean scores of achievement of the girls of the experimental and controlled group by correlated t-value (Hypothesis No.3)

Group	N	Mean	SD	t value	Significant level
Experimental Group(Girls)	35	15.14	4.7	2.76	0.01
Control Group(Girls)	35	12.34	3.61		

From table 3, it is obvious that t value for the girls of experimental group is highly significant at 0.01 level, which shows that there is a significant difference between the mean scores of achievement of the girls of both the groups. And therefore the null hypothesis No. 3 viz. **"There will be no significant difference between the mean scores of achievement of the girls of the experimental and controlled group"** is rejected at 0.01 level of significant. It means that the experimental group has scored well at the posttest stage. So it can be concluded that the girls of experimental group has well understand which was learnt through treatment.

Table 4: Analysis and Interpretation of mean scores of achievement of the students of the experimental and control group by correlated t-value (Hypothesis No.4)

Group	N	Mean	SD	t value	Significant level
Experimental Group	70	13.74	4.44	0.20	Not Significant at 0.01 and 0.05 level
Control Group	70	13.8	4.48		

From table 4, it is obvious that the mean scores of achievement in the criterion test are 13.74 and 13.8 for the boys and girls. The t value is 0.20 which is lesser than the theoretical value 2.58. So gained t value is insignificant at 0.01 level. So it can be concluded that there is no significant difference between boys and girls in the posttest. And therefore the null hypothesis No.4 viz. "There will be no significant difference between the mean scores of achievement of the boys and girls of the experimental" group is accepted. So, boys and girls of experimental group get equal achievement; there is no effect of gender in achievement.

11. Findings

1. Posttest result of Experimental group scored high as compare to those of pretest result of Experimental group.
2. Posttest score result of Experimental group scored high as compare to those of posttest result of control group.
3. The students of experimental group achievement mean scores were affected by the teaching material of a Computer Assisted Language learning Programme.
4. The students belonging to experimental group were found to possess more scores than control group.
5. The teaching method was found to be affected on the sex of the students.

12. Conclusion

This study represents a preliminary effort to empirically examine that the effect of Computer Assisted Language learning on primary students. Further research is needed for a thorough understanding of this issue and for the confirmation of its findings. This is especially true when conducting research with more variables. It is recommended that this study be replicated with the larger number of participants and over the whole semester or the whole year. Researcher is further recommended to study the effect of using computer on the higher and university students' learning of English.

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