REVIEW OF RESEARCH

# EFFECTIVENESS OF COMPUTER ASSISTED INSTRUCTION WITH PEER INTERACTION ON LEARNING ENGLISH GRAMMAR TENSES

ISSN: 2249-894X
IMPACT FACTOR : 5.7631(UIF)
UGC APPROVED JOURNAL NO. 48514
VOLUME - 8 | ISSUE - 8 | MAY - 2019

**K. Ahalya Sundari**

**Research Scholar, Department of Education, SPMVV, Tirupati, Andhra Pradesh.**


**ABSTRACT:**

*This study aims at finding out the effectiveness of computer assisted instruction with peer group interaction in improving English grammar tenses and communication skills. For this study CAI and CAIPI program, activities and achievement test on English grammar tenses were developed by the investigator to collect pretest and posttestst age. English achievement test was applied as pretest and posttest to both the groups. To check the retention a delayed posttest (retention test) was administered 1 month after the post-test. The interactive computer assisted instructions stimulate human thought process in many ways. An attempt was made to find out the effectiveness of different instructional strategies viz., computer assisted instruction as individualized instructional strategy (CAI) and computer assisted instruction with peer interaction (CAIPI) on the achievement of students in English grammar tenses. The results of students were analyzed using t-test statistic. The results shows that in the computer assisted instructions the students retained the concepts for a long period of time. It is found that CAIPI is the most effective instructional strategy in enhancing the achievement of students in English grammar tenses. Further, it is observed that CAIPI is also effective in enhancing the retention of the learners in English grammar.*

**KEYWORDS**: *English grammar tenses and communication skills.*

## INTRODUCTION

Education is to and fro process of teaching and learning. Earlier schools were considered as knowledge complexes and learner eagerness, curiosities were given mere importance and teaching depends on the will of teacher.

The idea of government to provide equal education to all will remain as dream till the discrepancies in the system has to be corrected. As the student teacher ratio is 1:30 where the expectation of individual attention and to teach students according to their pace of learning is difficult then it is difficult for a teacher to provide material according to their need, pace of learning and to assess the learning of individuals and keeping records of them. The exponential growth of ICT helped learners of remote areas and knowledge. At the same time there is a gap in the educational technology and to reach education needs for its effective wonders to act on knowledge seekers. Earlier libraries were sources of knowledge and information. But in the present scenario the information is available at the click of mouse. Hence the nature of knowledge/ information has changed from volumes of books to e-environment where the physical nature is changed to virtual base.

Educational technology is the systematic application of knowledge of science and behavioral science to make the educational process more effective. Education technology as concept doesn't imply the use of hardware but to access different components of multimedia and other features of technology to engage the students self-paced and bring in experiential learning and to

assess students understanding multiple choice questions can be put on a website. The only way to bring change in accessibility and assessment first the beliefs and values of teachers, administrators, educational stake holders should change not the technological one.

Peer group interaction is viewed as process of knowledge construction and here the shared understanding leads to action in this process three stages are acknowledged they are communication, negotiation and consolidation. Peer group interaction helps students learning effectively the complex difficult topics. Peer group interaction with CAI involves greater social interaction than any other method as English language needs interaction to develop communication skills in collaborative learning environment, individuals

**Atmaram and Afsarpasha (2015)** conducted a comparative study of learning through computer and conventional method and found that CAI method was found effective than traditional method to teach English.

**Ishita M. Badiyani (2008)** has developed computer assisted instruction package and computer aided learning package. The study was conducted by using experimental method to find out the effectiveness of computer assisted learning and computer aided learning in English language. The researcher concludes that both the methods were very beneficial for gaining proficiency in English.

**Zigic et al. (2007)** developed an interactive computer based learning strategy to assist in teaching water quality modeling to out computer based instruction effects. In the study CBI aid comprised a hypertext makeup language (HTML) module and concluded that all the students found CBI aid helpful and easy to follow also felt they were able to complete their project with minimum supervision.

## OBJECTIVES OF THE STUDY

- To find out the effectiveness of CAI (Computer Assisted Instruction) and CAIPI (Computer Assisted Instruction with Peer Group Interaction) of teaching English at secondary level, in relation to student's achievement and retention of acquired knowledge.

## METHODOLOGY

The present study is experiential in nature, here effectiveness of two instructional strategies were compared with pre-test posttestnonequivalent group design has been used for the present study. Initially 140 students of class 8$^{th}$ of age 13-15 years were selected as the sample of the present study. To fulfill the objective of the study two schools were selected. The groups were equivalent in number and based on the pretest scores of achievement the homogeneity among two groups was maintained.

**Table 1: Achievement Scores of Control and Experimental Groups in Pre-Test**

| Group | N | M | SD | t-value |
|---|---|---|---|---|
| Control Group | 70 | 42.20 | 14.43 | 1.25 |
| Experimental Group | 70 | 41.6 | 17.43 | |

Table-1 states that mean scores achieved by students of control and experimental group on pretest are 442.20 and 41.86 respectively and the calculated value of 't' of 1.25 is less than 1.96 at 0.05 level of significance which indicates that there is no significance difference between the means achievement scores of students of both groups. From the above findings it is clear that both groups homogenous in their achievement in English.

**Table 2: Achievement Scores of Control and Experimental Groups in Post-Test**

| Group | N | M | SD | t-value |
|---|---|---|---|---|
| Control Group | 70 | 43.97 | 14.99 | 2.18 |
| Experimental Group | 70 | 47.84 | 14.80 | |

Table-2 concludes that mean achievement scores of control group (CAI) and experimental group (CAIPI) scored on posttest were 43.97 and 47.84 respectively. The difference between mean scores was found to be significant (t=2.18, p=0.05) it is inferred from the data that mean achievement scores on posttest of CAIPI group 47.84 is higher than the mean achievement scores on posttest of control group (CAI) is 43.97.

**Table 3: Achievement Scores of Experimental Group and Control Group in Retention Test**

| Group | N | M | S.D | t-value |
|---|---|---|---|---|
| Control Group | 70 | 47.62 | 14.14 | 2.96 |
| Experimental Group | 70 | 49.73 | 14.34 | |

From Table-3, the mean achievement scores in retention test after learning through CAI and CAIPI method were 49.62 and 47.73 respectively. The difference in mean between these two scores was highly significant (t=2.96, p=0.05). From the analysis it is clear that as far as the retention is concerned CAIPI instructional strategy is better than CAI. This is probably due to the fact that interactive CAIPI instructional strategy is activitybased and learner interaction helps learner to expertise the language and learns at his own pace and moreover students get immediate feedback.

## FINDINGS AND CONCLUSIONS

When English was taught to the students of eighth standard students through either computer assisted instruction, computer assisted instruction with peer interaction, in both the groups students' performance was remarkable differences the scores was observed in the post test. When we observe the post test scores of two groups it is evident that the students performed better after applying instructional strategies to both groups but results of experimental group was found significant difference of pretest and post test scores achieved by them in English. Both the instructional strategies were effective for teaching English grammar to eighth standard students, computer assisted instruction with peer interaction was found more suitable with respect to the marks achieved by them in English achievement test.

Hence the experimental group students performed better than control group students on posttest. Thus computer assisted with peer group interaction (CAIPI) instructional strategy is proved to be better than individualized CAI of teaching English to class eighth students. When students were taught through, both CAI as individualized instruction and CAIPI as CAI with peer group interaction , it was found that the acquired retention was better in case of computer assisted instruction with peer group interactional strategy.

## REFERENCES

1. Aggrawal, J.C. (1996). Educational Research: An Introduction, New Delhi: Arya Book Depot.
2. Atmaram & Afsarpasha, M.A. (2015). Effectiveness of Computer Assisted Instruction on Academic achievement in English of secondary school students. Sanshodhan Kranti, International Multidisciplinary Research Journal, 25(1).
3. Badiyani, I.M. (2008). Development and comparison of the effectiveness of computer assisted English language learning package and computer aided English language learning package. Unpublished Doctoral Thesis.
4. Best, J.W. & Khan J.V. (2006). Research in Education, Prentice- Hall of India Pvt. Ltd., New Delhi, p.184.
5. Chauhan, S.S. (1994). Innovations in teaching Learning Process. Vikas Publishing House, New Delhi.
6. Cohen, Manion, L., & Morrison, K. (2011). Research Methods in Education (7th Ed.) Routledge.
7. Comrie, B (1985). Tense, Cambridge University Press, Cambridge.
8. Jung, S. (2006). The Use of ICT in Learning English as an International Language, Unpublished Ph.D. Thesis, University of Maryland.

9. Maheta, S.N. (2009). Development and Effectiveness of Computer Assisted Instruction (CAI) Program for Instruction in Geometry at Primary Level.
10. Meera. S. (2000). Relative effectiveness among different modes of computer based instruction in relation to student's personality traits: Indian Educational Abstracts, 27(12), 14-15. New Delhi: NCERT.
11. Modi, B.A. (2014). Effectiveness of teaching through computer aided instruction (CAI) and traditional teaching method. Indian Streams Research Journal, 6(2).

LBP PUBLICATION