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The study of effectiveness of Computer assisted learning material for content based instruction in improving reading skill.

G R*e*vathi
MA, M Ed, MPhil, (PhD)
Dept of English
St.Ann's Degree College for Women.

Abstract— This study examined the unique contribution of computer-based instruction when compared with more conventional modes of instruction (i.e. teacher instruction with textbooks) to early reading skills acquisition, as well as the effects of specific features of computer technology on early reading skills performance. Sixty primary class children (aged 9-10), learners with reading difficulty, participated in the study. Word recognition and letter recognition skills measured prior and after the treatment. Results clearly indicated that children at high risk who received the reading intervention program with computer materials significantly improved their comprehension skills, word recognition, and letter naming skills relative to their reading intervention program with only printed materials and those who received no formal reading intervention program. The results are discussed in detail, with reference to the features of the computer-based materials that contributed to the acquisition of critical early reading skills. All students improved reading comprehension of content material with this intervention, and were able to read their textbooks independent of teacher assistance or tutelage. These findings are significant because students who previously struggled with learning class material were confident in reading after the intervention programme.

I. Introduction

The major objective of this study is to develop computer assisted learning material for slow learners to improve their reading skill. In the development of these learning material the guide lines given by the NCERT have been followed by the investigator. Basically the study was aimed at teaching reading skill in English, since learning of English language is more important hence word method is followed.

The subjects chosen for this study were from the fifth grade class of St Theresa's high school who were never exposed to the teaching with the help of computers. The learners with reading difficulties

were identified by educational assessment and then they were subjected to a confirmatory test.

Initial phase of the programme was traditional method of teaching. The investigator taught the slow learners in the traditional method for a period of 30 working days at the rate of 1 hour per day after the school hours with a post test of reading after each and every lesson.

After the completion of three lessons of their text and two of the reading material of the ORIENT LONG MAN, the sample group after a gap of one week was subjected to a grand test.

Then the developed computerized material was presented to the students. For conducting this intervention programme the computer lab was chosen. Each child was given an individual computer with the modules. Prior to it the student was given instructions on how to go about with the lessons and to relearn or recap when ever and where ever necessary. Pronunciation of the difficult words was helped by software named “Talk it”. At the end of the programme after a gap of one week a grand test covering all the lessons learnt through computer was conducted.

After a span of three months from the date of post-test a retention test was administered

On completion of the intervention programme the students and the teachers were provided with opinionative of the intervention programme

II Assumptions of the Study

- CAL material is more effective than the traditional lecture method.
- The slow learners evince/shows a favorable attitude towards CAL material.
- To examine the effects of computer assisted learning material among students with reading difficulties.
- The following assumptions will be studied
- The students after the intervention programme will improve in reading skill considerably
- There is a favorable and a positive attitude towards the computerised material, both teachers as well as students
- Increase in retention power.
- Improvement in the reading skill i.e number of words per minute is also increased with less errors in identifying words

III Hypothesis of the Study

Keeping in view the objectives of the study the following hypothesis are formulated for testing;

- There exists significant difference between the pre-test and the post-test mean scores of slow learners.
- There exists no significant difference between the pre-test and post-test mean scores when language is taught through traditional lecture method.

- There is a significant difference between the post test mean scores and retention test mean scores of the slow learners.
- Has computer assisted learning material produced benefits that result in greater achievement for students in improving their reading skill.

IV Analysis and Interpretation

- The data thus obtained were analyzed by using appropriate statistical techniques such as
- mean, standard deviation, and t-test. The effectiveness of computer assisted learning was
- measured through an achievement test after the intervention programme and after a gap
- of three months was conducted. The same achievement test as well was used to measure
- the effectiveness of the traditional lecture method.

V Findings of the Study

- The test scores of the pre and post intervention programme to teach reading hold great promise as instructional tools to increase students engagement in reading , promote reading comprehension, and improve reading skills CAL can assist teachers in developing a more individualized approach to reading instruction to meet the diverse range of students needs in classrooms. Post test scores are higher for the lessons after learning with the help of computer Retention test scores are higher for students with learning difficulties.
- Table 1. Pre-test and Post -Test Mean, S.D., N ,SED and t-value of language reading ability of the group of students taught through CAI Package

Testing	Mean	SD	N	SED	t-value
Pre -test	102.11	47.41	30	9.06	8.258
Post- test	177.90	27.99	30		

Significant at 0.01 level of significance

Table 1. Comparison of CAI Package and Conventional Method

Groups	Mean scores	N	D(M1-M2)	SED	t-value
CAI	177.90	30	24.03	2.50	9.612
Conventional Method	153.87	30			

- Significant at 0.01 level of significance From table2 it is evident that the t-value of Post – test language creativity in English of students taught by CAI Package and conventional Method is 9.612 which is significant at 0.01 level of significance with

df 87. It indicates that the mean scores of students taught by CAI Package and Conventional Method differ significantly. Furthermore it indicates that the mean score of students taught by CAI Package (177.90) is higher than the mean score of students taught by Conventional Method (153.87) .It may therefore be concluded that CAI Package is more effective than Conventional Method in teaching of English for developing language reading skill of the students.

VI Summary and Conclusion

- There is general agreement that reading is essential to success in our society. The ability to read is highly valued and important for social and economic advancement (snw ,burns and griffin,1998).
- Most children learn to read fairly well. However there are children whose educational concerns are at risk because they do not read well enough to ensure understanding or to meet the demands of an increasingly competitive economy and changing demographics. Many of them are experiencing serious difficulty in learning to read and as they progress through the grades they continue to lag in reading achievement.
- Computer assisted instruction is among the range of strategies being used to improve student achievement in school subjects including reading.
- Students are expected to benefit from CAL .among the benefits that have been expected are better and more comfortable learning for students, since they learn at their own pace and convenience
- Teachers as well are expected to gain from CAL as they experience less drudgery and repetition greater ease in updating instructional material. Guidelines for Computer-Assisted Reading Instruction

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