Research Article

EFFECT OF MULTIMEDIA APPROACH ON ACHIEVEMENT IN ENGLISH OF THE STUDENTS OF STANDARD IX

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Abstract

The aim of the present study is to find out the Effect of Multimedia Approach on Achievement in English of the Students of Standard IX. In order to conduct the experiment, a sample of 80 Standard IX students was selected. The sample was divided into two groups, experimental and control groups for the study. The investigator conducted study in non-equivalent intact classroom groups. The results indicate that, the experimental and control group differs significantly in their achievement in English Language. Thus, it can be concluded that multimedia approach is more effective than conventional method in the teaching of English Language at High School Level.

Keywords: *Multimedia approach, achievement in English, experimental study, control group, high school students, conventional method, English language teaching*

INTRODUCTION

English is the world's widely spoken language. It is the common means of communication between the peoples of different nations. Randolph Quirk points out: NThere is now something like 250 million people for whom English is the mother tongue or first language". The process of acquiring any language involves the process of acquiring the basic factors of language learning. The following are the three basic skills of learning a language such as Grammar, Vocabulary, and Reading.

The future of Multimedia in Education

The casual use and authoring of interactive media will be made accessible to ever widening sectors of society through the spread of low cost intelligent devices and authoring tools that are greatly simplified.

This will not reduce the demand for professionally produced content. Just as purchasing a pen does not make one a writer, there will always be a difference between interactive media that is professionally produced and distributed, but the transition in technology to enable anyone should be welcomed by educators for the potential it offers them and their students.

Need and Significance of the Study

Multimedia is a very effective means of presentation and sales tool. Schools are perhaps the neediest destination for multimedia. Use of technology in education and training of population for which formal systems are either not available or are inadequate to meet the needs, should be explored. More work is needed in assessing the cost effectiveness of various uses of technology. This made the investigator to choose multimedia, which has a chance to go with the pace of the pupil. The students themselves can operate it and learn themselves. Learning through Multimedia also enhances interest among the pupil, creates an urge to be anxious of what will be the next moment. Thus as it constantly sustains the interest of the pupil, they can learn more through this media.

The present study aims to test the effectiveness of Multimedia approach in teaching English at High school level. Most of the schools in Kerala are following the traditional method in teaching English language. So the study envisages the comparison of lecture method with the Multimedia Approach of teaching. Teaching implies the exercise of skills in carrying out teachers' plans and to derive minimum benefit through instruction. The investigator hopes that the study would be helpful to improve educational practice in Kerala.

The present study is an attempt to develop multimedia packages for English in class IX that incorporated the audio and visual media along with the psychological principles of learning.

STATEMENT OF THE PROBLEM EFFECT OF MULTIMEDIA APPROACH ON ACHIEVEMENT IN ENGLISH OF THE STUDENTS OF STANDARD IX

OBJECTIVES OF THE STUDY

The following objectives were set for the study.

1. To prepare an Interactive Multimedia software for English language learning.
2. To compare the experimental group and control group with respect to their gain in performance.

HYPOTHESES OF THE STUDY

In order to realize aforesaid objectives the present study was designed in such a way as to test the following hypotheses.

1. There is significant difference between the means of scores of pre test of experimental and control group in achievement.

2. There is significant difference between the means of post test scores of experimental and control group in achievement.

3. There is significant difference between the experimental group and control group with respect to their gain in performance.

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SAMPLE

In order to conduct the experiment, a sample of 80 Standard IX students was selected from St. Ephrem's High school, Mannanam, Kottayam District. The sample was divided into two groups, experimental and control groups for the study.

PROCEDURE

The investigator selected experimental method for the present study. The sample consisted of 80 students of standard IX, selected from St. Ephrem's High school, Mannanam, Kottayam District. They were divided into two groups and a pre test given to them to assess their entry behaviour. The investigator conducted the study in non-equivalent intact classroom groups. One group was selected at random as experimental group, Who was taught through Multimedia Approach. The second group was taught through Conventional Method. After completing experimental teaching, the same achievement test was repeated to the two groups. The marks obtained were subjected to appropriate statistical techniques to determine the effectiveness.

STATISTICAL TECHNIQUES USED

The following statistics were computed:

Mean, Median, Quartile deviation, Standard deviation, Skewness,Kurtosis, Critical Ratio and Analysis of Co-variance.

FINDINGS

The major findings of the study were placed in three sections.

Section I: Conclusion drawn, based on the findings of the effectiveness of multimedia approach in comparison with the conventional method based on student's performance

The conclusion is that the multimedia approach is more effective than conventional method in teaching English Language at High School Level.

Following findings supports the above conclusion.

1) Pupil's performance in the Achievement test

a)   Before the experiment

The pre-test scores of pupils in the two groups were compared. The maximum score of the test is 25. The arithmetic mean of the scores obtained by the experimental group is 8.77 and that of control group is 8.94. cursorily This indicates that the pupils in the experimental and control group did not achieve high scores in the pre-test.

Also, the difference between the means is 0.15. This shows that the two groups did not differ very much in their achievement in the pre-test.

The median of the experimental and control group are 8.84 and 8.99 respectively. These values show that 50% of the experimental group got scores above 8.84 and 50% of the control group got scores above 8.99.

The low values of quartile deviation and standard deviation for both the groups show that the scores do not differ ver·y much from the average in the pre-test.

The value of skewness for experimental and control groups are -.07 and   -0.13,   which indicates that both the groups are negatively skewed. The negative values of • skewness indicate that the students who scored high marks are more than those who scored low marks in the group.

b) After the experiment

A post-test was administered after the conduct of the experiment. The maximum score of the test is 25. The arithmetic mean of the scores obtained by the. Experimental group is 19.4 and that of the control group is 15.16. The difference between them is 4.12. This indicates that the students in the experimental group achieved high scores in the post-test when compared to performance of control group.

The median of the experimental and control group are 19.55 and 15.67 respectively. These values show that 50% of the experimental group got scores above 19.55 and 50% of the control group got scores above 15.67.

The quartile deviation. And standard deviation of the experimental group are 1.66 and 2.33 and that of control group are 2.35 and 2.99 respectively. The moderate values of the quartile

deviation and standard deviation for both the groups show that the scores do not very much differ from the average.

The skewness obtained from the post-test scores of the experimental and control group are 0.04 and -0.52. This indicates that the distribution of test scores is slightly positively skewed in the experimental group and negatively skewed in the control group.

c) Gain in performance

The gain scores are computed from pre-test and post-test scores. The arithmetic mean of the scores obtained by experimental group is 11.2 and that of control group is 6.99. The difference between them is 4.17. This indicates that students in experimental group achieved high scores in the post-test than that of control group. This clearly indicates that Multimedia Approach has a greater effect on student's academic achievement than that of conventional method.

The median for experimental and control group are 11.46 and 7.23 respectively. This shows that 50% of the experimental group got scores above 11.36 and 50% of the control group got scores above 7.13.

The quartile deviation and standard deviation of the experimental group are 2.11 and 2.11 and that of control group are 2.83 and 2.93 respectively. This moderate value of quartile deviation and standard deviation indicates that the scores do not very much differ from the average.

The skewness for experimental and control group are -0.28 and -0.16 respectively which indicates that the distribution of test scores in both the groups are negatively skewed.

2) Comparison of performance of pupils in the Experimental and Control groups

a) Before the Experiment

From the computation of the critical ratio, (CR = 0.33; $p > 0.01$) it can be concluded that the experimental and control groups are more or less of the same ability.

b) After Experiment

Here the difference between the mean scores of pupils in the experimental and control groups was found to.be statistically significant (CR = 7.37; $p < 0.01$). It can be tentatively concluded that multimedia approach is more effective than conventional method for teaching English Language at High School Level.

3) **Comparison of gain scores of pupils in the Experimental and Control groups**

When the gain scores. of pupils in the experimental and control groups were compared, the difference between their means was found to be statistically significant (CR = 6.38; p <0.01).It can be inferred that Multimedia Approach is more effective than Conventional Method of teaching English Language at High School Level.

4) **Comparison of the effectiveness of Multimedia Approach over Conventional Method in teaching English Language**

The Analysis of Co-variance (ANCOVA) applied to the pre-test and post-test scores with experimental and control groups showed that, the two groups differ significantly in their post-test achievement in English Language (Fy = 57.29; p < 0.01). When the adjusted mean for the post-test scores corresponding to the groups were tested for significance, it was found highly significant.

[M1=19.68, M2=15.18, Difference"" 4.6, p<0.01)

 Table 4.11.

Summary of Analysis of Co-Variance of Pre-Test and Post-Test Scores Of Pupils in Experimental and Control Variables.

Sources Of Variation	Df	Ssx	Ssy	Ssx,Y	Ssy,X	Msy,X *(Vyx)*	S.Dy,X
Among Means	1	0.45	374.13	-13.03	400.59	400.59	
With In Means	77	302.55	509.27	309.23	193.21	2.51	1.58
Total	78	303	883.4	296.21	593.8		

Fyx = 400.59/2.51 159.59. From Table, For Df = 1/77 F At 0.05 Level = 3.92

F At 0.01 Level = 6.85

The obtained Fyx ratio was tested for significance. since the table value of F Ratio for Of 1/77 Is 6.85 at 0.01 Level, the calculated value is highly greater than the table value. Thus the obtained Fyx ratio is highly significant (Fyx = 159.59; P < 0.01) It is clear from the significant Fyx ratio that the two final Means which depend upon experimental and control variables differ, after they have been adjusted for initial differences in the pre-test scores.

These results indicate that, the experimental and control group differs significantly in their achievement in English language. Thus, it can be concluded that multimedia approach is

more effective than conventional method in the teaching of English Language at High School Level.

EDUCATIONAL IMPLICATIONS

a. Multimedia Approach enhances the self-learning among the learners, which develops logical thinking and creativity among the learners.

b. For practicing complex skills, simulation activities, Multimedia Approach can be effectively used.

c. In teacher training programmes, especially in English Language, Multimedia Approach can be effectively practiced, to provide simulation to the trainees.

SUGGESTIONS FOR FURTHER RESEARCH

1. In the wake of global changes and challenges, there is an urgent need for developing a self-learning, Multimedia package for learning English language.

2. Studies can be conducted to determine the effectiveness of different combinations of various instructional methods and learning experiences to Multimedia Approach with students in other educational stages such as Higher Secondary, Graduate and Post-Graduate levels.

3. The investigation in the present study can be extended to include teachers of English communication skills.

REFERENCES

BOOKS

Aggarwal, J. C. (1991). Educational Research - An Introduction. New Delhi: Arya Book Depot.

Arnold, Helen (1992). Listening to Children Reading. London: Hodder and Stoughton.

Best, John W. and Kahn, James V. (1989). Research in Education. New Delhi: Prentice Hall of India Pvt. Ltd.

Garret, H. E. (1981) Statistics in Psychology and Education. Bombay: Vakils, Feffer and Simons Ltd.

Passi, B.K.&. Pal, H.R. (1982). Preparation of Multimedia Instructional Module for Developing the Skill of Observing Classroom Behaviour Through Flanders Interaction Analysis Category System. In M.B. Buch (Ed.), Third Survey of Research in Education. New Delhi: NCERT.

Vardhini, V.P. (1982). Development of a Multimedia to Instructional Strategy for Teaching Science of Secondary Level. In M.B. Buch (Ed.), Fourth Survey of Research in Education. New Delhi: NCERT.

JOURNALS

Ahuja, G. C. (1975). Do Fast Readers Comprehend Better? Journal of Educational Research and Extension, Vol. 12.

Jarial, G.S. and Sharma, A.K. (1980). English Language Learning and its Components, as affected by Intelligence, Personality and their Interactions.

Tara, S. N. (1981). Sex Differences in English Language Learning Among Early Adolescents in India. Perceptual and Motor Skills, 52, 959-62.

ABSTRACTS

Anselm, Yu-Ping Hsiao. (2005). Engaging middle school students as multimedia designers: Exploring students' project design skills and psychological sense of community. Dissertation Abstracts International, 54, The Humanities and Social Sciences, UMI Publication.

Collins & Thomas (2000). The effects of computer-assisted algebra instruction on achievement, Mathematics anxiety levels and attitudes toward personal use of computers of students in a historically black university. Dissertation Abstracts International, 57, The Humanities and Social Sciences, UMI Publication

Darryl Theodore. (2005).The effect of multimedia technology in the lives of urban middle school students: Contextual and social influences on multimedia confidence. Dissertation Abstracts International, 54, The Humanities and Social Sciences, UMI Publication.

McDonald & Michael. (1996). Impact of multimedia instruction upon student attitude and achievement and relationship with learning styles. Dissertation Abstracts lnternational,58,The Humanities and Social Sciences, UMI Publication.

Vines & Joe Edwin. (1997). An assessment of the effects of computer-based writing instruction upon the teaching of English as a second language. Dissertation Abstracts International, 57, The Humanities and Social Sciences, UMI Publication.

THESES AND DISSERTATIONS

Agarwal, V.R. (1981). A Study of Reading Ability in Relation to Certain Cognitive and Non-Cognitive Factors. In M.B. Buch (Ed.), Fourth Survey of Research in Education. New Delhi: NCERT.

Anjiliveli, Mathew M. (1989). Developing Reading Comprehension among First year D·egree Students. Unpublished M.Phil. Dissertation, Alagappa Univeristiy, Karaikudi.

Dass, P.A. (1984). A Study of Reading Comprehension in English of Students of English Medium Secondary Schools of Std. X of Central Gujarat in the context of some Socio-psycho factors. In M.B. Buch (E.d), Fourth Survey of Research in Education. New Delhi: NCERT.