



ORIGINAL RESEARCH PAPER

Education

EFFECTIVENESS OF INTERACTIVE MULTIMEDIA IN ENHANCING ACADEMIC ACHIEVEMENT IN ENGLISH AMONG SENIOR SECONDARY STUDENTS

KEY WORDS: Interactive multimedia, Academic Achievement in English, senior secondary students.

N. Sivakumar*

Research Scholar, Department of Education (DDE), Alagappa University, Karaikudi. *Corresponding Author

P.sivakumar

Professor & Head, Department of Education (DDE), Alagappa University, Karaikudi.

ABSTRACT

The present study investigates the effectiveness of interactive multimedia in enhancing academic achievement in English among senior secondary students. The senior secondary students were selected from Chellapan Vidya Mandir Matriculation School, Karaikudi. The experimental method with parallel group design was selected. The experimental and control group was constituted. Each group had thirty five (35) students altogether there were seventy senior secondary students involved in this investigation. The interactive multimedia instructional method was adopted experimental group students and the conventional method was adopted to control group students respectively. The study result reveals that experimental group students have more academic achievement in english than control group students. It is understood that the interactive multimedia instructional strategies can significantly enrich the academic achievement of students in English among senior secondary students. The main purpose of using multimedia technology in language teaching is to promote students' motivation and learning interest in the English language. In the non-native English speaking context, this can be a practical way to get them involved in the language learning.

INTRODUCTION

As the popularity of English is expanding day by day and worldwide, the teachers of English feel the need of change in their language teaching methods. There are teachers who use the "leading edge of technological and scientific development" but the majority of teachers still teach in the traditional manner. However, this paper does not claim that none of these traditional manners are bad or damaging the students. In principle, they are proving to be useful even today. There are many opportunities for students to gain confidence in learning English who learn the language for more than just fun. For them, to keep pace with English language teaching and gain more confidence, they have to stride into the world of multimedia technology. Here, multimedia technology refers to computer-based interactive applications that use both the hardware and software, allowing people to share their ideas and information. It is a combination of text, graphics, animation, video and sound.

The twenty-first century is the age of globalization and information technology as Harry Samuels argues, "Much more recent developments in social media and information technology are taking foreign-language education in new directions". English is one of the important mediums of communication in the world, so it is important to learn the language. As a result, English language teaching has been one of the important subjects in education. In fact, there are more non-native than native speakers of the language. There is also the diversity of context in terms of learner's age, nationality, and learning background that has become an important feature of English language teaching today

The principle of teaching should be to appreciate new technologies without taking over the role of the teacher and without limiting the functions of traditional teaching methods. There are various reasons why all language teachers and learners must know how to make use of the new technology. Most importantly, the new technologies have been discovered and disseminated so quickly that we cannot avoid their attraction and influence on all of us: both teachers and learners, even both native and non-native speakers of English.

English one of the global language and main subject of the school education particularly senior secondary students. The teaching of English has variety of instructional strategies that are followed by the teacher based on students need and interest in the school environment. However, the few technology related teaching strategies is highly reliable for school students. It enables them to make it easy for learning

the selective components in English. The most of the previous studies proved the different technological based instructional strategies were significantly influence the academic performance of students in English at school education level.

NEED AND SIGNIFICANCE OF THE STUDY

The greatest contribution of Information technology is the development of computer and its use in all sectors of life. They have become more powerful (i.e., able to process and store much more data), faster, cheaper, portable, easy to use and more convenient. Personal computers (PCs) and laptop are now within the reach of even ordinary people. In recent years, accessories such as- hard disk, CD- ROMs, flesh drive, printers used with computers had also developed rapidly. Using these, a computer program can handle sound, picture and video along with text. "Multimedia" is a buzzword today in the field of computer. Multimedia involves combining text, sounds, still pictures and video etc. This means that the world of computers is getting easier to the world of human beings. As the hardware develops, computer displays become more realistic and cheaper. The computer with its virtually instantaneous response to the student input, its extensive capacity to store and manipulate information its unmatched ability to serve many individual students simultaneously is widely used in instruction. The computer has the ability to control and manage a wide verity of media and learning material - films, filmstrips, videos, slides, audiotapes and printed information. Now days in teaching learning process are used several of media like Computer, Multimedia, Radio, TV etc. Among all of them computer plays tremendous role in teaching - learning process. It provides a dynamic interaction between computer and students. Computer used as a delivery tools present information, receive the response, analyze the response and give immediate feedback to the students. The process is known as multimedia. The interactive multimedia is a one of the advanced instructional process it is used recently by the teacher teaching the subject in the school. The English subject is one of the main subjects for the students who can develop their communication skills and academic achievement in school environment. The teaching of English is may differ by the teacher who are all expert in subject and what type of instructional strategies followed by them in the teaching learning process. The interactive multimedia based teaching is very practical in the present context. Based on the above rational behind of that, the present investigation is considered as needed and significant one.

REVIEW OF RELATED LITERATURE

It is of profound duty the researcher has to record the findings of recent research studies carried out earlier by the researcher in both India and Abroad related to the research area has chosen by the investigator.

The investigator has given recent significant research studies reviewed by him for strengthening his study.

Abdul Samat, Mohamad Subaidi bin (2020) conducted a study on **"The Effectiveness of Multimedia Learning in Enhancing Reading Comprehension among Indigenous Pupils"** The development of education is growing, and the technology-infused lesson is a powerful tool to attract pupils' attention, especially in reading. This approach can be seen as an adaptive movement to equip the learning process and the fourth industrial revolution. Nowadays, the demand of the technology-infused lesson is increasing as it is proven to help pupils learn the language better. Hence, this study explores multimedia learning as an approach to teaching reading comprehension. Besides, this study aims to answer two questions, which are the effectiveness of multimedia learning in helping indigenous pupils learn comprehension and which elements of media are effective in enhancing reading comprehension among indigenous pupils in Malaysia. Two instruments used to collect the data from 20 indigenous pupils in one primary school located in Kluang, Malaysia, and an action research design was used to achieve the purpose. The respondents were chosen through the judgment sampling technique. SPSS was used to analyze the data collected from the test, and thematic analysis was employed to analyze the semi-structured interview. The result shows that the implementation of multimedia learning in teaching reading comprehension is useful as the combination of multiple elements of media scaffold the process of understanding. On the other hand, audio is the least effective in helping pupils comprehend the information.

Rizwan, Muhammad (2018) "Effect of Interactive Whiteboard on Academic Achievement of Higher Secondary School Students" In this study the effects of using interactive whiteboards on the achievement of higher secondary students in respect of English vocabulary teaching were examined. The sample of the study comprised of 80 2nd year students of GCHSS No 1 Haripur District. The study involved two groups as the experimental group and control group. The subject of the study was three units of 2nd year English textbook, Unit 3 Battle of Uhud, Lingkuan Gorge, Unit 4 Determination, The Man Who Planted Trees and Unit 5 Technology and Society of the Future, Gender Inequality is Detrimental to Society. The vocabulary was taught to a control group using a traditional white board (TWB) and the experimental group was taught using an electronic or Interactive Whiteboard (IWB). An English achievement test as a pre-test and post-test was used to investigate the success of both groups. The results were evaluated by using the software SPSS. Findings and results disclosed that the experimental group outperformed the control group with respect to their achievements. The IWB appeared to have significant effects on the achievements of students for learning English vocabulary on higher secondary students. As a result, this study provides useful evidence for English teachers and students.

Katharina Scheiter et al. (2014) carried out a study on **"Extending Multimedia Research: How do prerequisite knowledge and reading comprehension affect learning from text and pictures"** The study was to find out the learner's reading comprehension and scientific literacy. Students numbering 125 with the average age group of 15.11 years were used for the study. The students learned on the topic "Cell reproduction" during their regular Biology teaching in one of six conditions resulting from cross verifying multimedia (text only Vs. Text plus animations) and text modality (spoken Vs. written Vs. Spoken and written). Recall and transfer were assessed immediately after lessons

taught and again after one week. The study found that the Multimedia design effects were advantageous over the Reading comprehension proving the students subjected to multimedia animations to text were more cognitive over the topic learnt at the test conducted again one week later over the students learnt through text only.

OBJECTIVES OF THE STUDY

1. To identify the level of Academic Achievement in English among senior secondary students
2. To select the suitable content for preparation of interactive multimedia in enhancing academic achievements in English among senior secondary students.
3. To develop the interactive multimedia in enhancing academic achievements in English among senior secondary students.
4. To experiment interactive multimedia in enhancing academic achievements in English among senior secondary students.
5. To find out the effectiveness of interactive multimedia in enhancing academic achievements in English among senior secondary students.
6. To find out if any significance of difference between the control and experimental group students with respect to pre-post test performance.
7. To find out if any significance of difference between the control and experimental group students in pre-post test performance with respect to certain demographic variables.
8. To find out if any significant relationship between the control and experimental group students with respect to pre-post test performance.
9. To offer valid suggestion for further improvement of academic achievements in English among senior secondary students.

HYPOTHESES OF THE STUDY

1. The level of Academic Achievement in English among senior secondary students is to be moderate.
2. There is no significance of difference between the control and experimental group students with respect to pre and post test performance.
3. There is no significance of difference between the control and experimental group students in pre-post test performance with respect to certain demographic variables.
4. There is no significant relationship between the control and experimental group students with respect to pre-post test performance.

VARIABLES OF THE STUDY

Independent Variable

Interactive Multimedia

Dependent variable

Academic achievement in English

SAMPLE OF THE STUDY

The present study was constituted two equivalent groups namely control and experimental groups. Each groups had thirty five (35) senior secondary students admitted with homogeneity in nature. Totally seventy (70) students were involved in this investigation after established homogeneity.

SAMPLING METHOD OF THE STUDY

The investigator has administered purposive sampling technique to select the sample for his investigation.

RESEARCH METHOD OF THE STUDY

The investigator has employed experimental method with parallel group design for proceeding his investigation among targeted senior secondary students were studied Chellappan Vidya Mandir Matriculation school, Karaikudi, Sivagangai District, Tamil Nadu, India

DATA ANALYSIS AND INTERPRETATION

Hypothesis: 1. There is no significance of difference between the control and experimental group students in pre-test an enhancing academic achievement in English

Significance of difference between mean and standard deviation between control and experimental group students in pre-test an enhancing academic achievement in English

Group	N	Mean	Standard deviation	T-value	Significant differences
Control Group Pre-test	35	50.88	15.21	0.15	S
Experimental Group Pre-test	35	51.39	12.41		

The above table shows that mean and standard deviation of control and experimental group students with respect to pre test. The mean value of control group pre test 50.88 and SD 15.21. The mean value of experimental group pre test 51.39 and SD 12.41. The calculated t value is 0.15 is lesser than critical table value. Hence, the framed hypothesis there is no significance of difference between the control and experimental group students in pre-test an enhancing academic achievement in English is accepted.

Findings

The Control and experimental group students do not differ significantly in pre-test in academic achievement in English.

Hypothesis: 2. There is no significance of difference between the control and experimental group students in post-test an enhancing academic achievement in English

Significance of difference between mean and standard deviation between the control and experimental group students in post-test an enhancing academic achievement in English

Group	N	Mean	Standard deviation	T-value	Significant differences
Control Group Post-test	35	56.94	17.68	3.05	S
Experimental Post-test	35	69.21	14.71		

The above table shows that mean and standard deviation of control and experimental group students with respect to pre test. The mean value of control group post test 56.94 and SD 17.68. The mean value of experimental group pre test 69.21 and SD 14.71. The calculated t value is 3.05 is greater than critical table value. Hence, the framed hypothesis, there is no significance of difference between the control and experimental group students in post-test an enhancing academic achievement in English is not accepted. The interactive multimedia teaching is significantly improving the academic achievement of senior secondary students in English.

Findings

The Control and experimental group students differ significantly in post-test in academic achievement in English. Thus, the interactive multimedia teaching is significantly improving the academic achievement of senior secondary students in English.

RECOMMENDATIONS OF THE STUDY

The following Recommendations were made by the investigator.

1. The class teacher can prepare interactive multimedia for different components in English subject at senior secondary level.
2. The class teacher can attend frequent training for preparation of interactive multimedia for effective preparation the same.

3. The students who can motivate the teacher to prepare the interactive multimedia for other difficult part in English.
4. The stakeholders should encourage the class teacher to prepare the interactive multimedia for their teaching of English and it interesting part for senior secondary students.

CONCLUSION

The main purpose of using multimedia technology in language teaching is to promote students' motivation and learning interest in the English language. In the non-native English speaking context, this can be a practical way to get them involved in the language learning. To achieve this goal, the language teachers should create a favorable environment for English language teaching, which should be based on the availability of information and teaching materials. While using multimedia technology in teaching if students are not too dependent on their mother tongue, they should be motivated to communicate with each other in English. The process of English learning should be more student-centered and less time-consuming. The language teachers should maintain the students' communicative competence through multimedia technology. In conclusion, the utilization of multimedia technology can fully improve the students' thinking and practical language skills.

REFERENCES

1. Subaidi bin Abdul Samat, M., & Aziz, A. A. (2020). The Effectiveness of Multimedia Learning in Enhancing Reading Comprehension Among Indigenous Pupils. *Arab World English Journal (AWEJ)* Volume, 11.
2. Rizwan, M., Ayub, S., & Khan, S. (2018). Effect of Interactive Whiteboard on Academic Achievement of Higher Secondary School Students. *Pakistan Journal of Distance and Online Learning*, 4(2), 213-224.
3. Scheiter, K., Schüler, A., Gerjets, P., Huk, T., & Hesse, F.W. (2014). Extending multimedia research: How do prerequisite knowledge and reading comprehension affect learning from text and pictures. *Computers in Human Behavior*, 31, 73-84.
4. Fatima, S. (2021). Multimedia Enhanced Language Teaching (MELT) in Different Universities, Colleges and Schools of Kuwait. *Strength for Today and Bright Hope for Tomorrow* Volume 21: 6 June 2021 ISSN 1930-2940, 231.
5. Girija, N., & Vijayalakshmi, S. (2010). Computerized Multimedia Package in Teaching and Learning Process of Social Sciences at Secondary School Level- An Experimental Study. *Artha Journal of Social Sciences*, 9(1).
6. Pun, M. (2013). The use of multimedia technology in English language teaching: A global perspective. *Crossing the border: International journal of interdisciplinary studies*, 1(1), 29-38.
7. Yang, S. C., & Chen, Y. J. (2007). Technology-enhanced language learning: A case study. *Computers in human behavior*, 23(1), 860-879.
8. Vandergrift, L., & Goh, C. C. (2012). *Teaching and learning second language listening: Metacognition in action*. Routledge.