

Chapter – 1

Conceptual Framework

1.0.Introduction

Language is a system for the expression of thoughts and feelings by using spoken sounds and conventional symbols. God is the universal father and he bestowed man with a special gift called language. The importance of language in the life of human beings cannot be emphasized. We cannot imagine a society without language. It is the basis for human progress. Without language, progress of civilization is not possible.

“Language may be defined as the expression of thought by means of speech sounds”

- Henry Sweet

Language is essential because language skills help to communicate effectively. Language has an impact on human behaviour. Language made up of letters, words, phrases, parts of speech, sentence patterns and figures of speech. If we talk of English language, it is a foreign language to us but, is also a global language. As a second language it is learnt for utilitarian reasons.

1.1 Importance of English Language

English is a cosmopolitan language. Here the term cosmopolitan refers the Hindi word Servedeshiya, which means all the countries of the world. So we can say that English is not a language of a particular country but of the entire world. It is also a language of UN, WHO, UNICEF etc. it is also a language of the global business.

English is one of the most important languages in the world. English is the most important language because it is the only language that truly links the whole world together. The other languages may be important for our local values and culture. English can be used as a language in any part of the world. The future of English as language is very secure. In this era of consolidation and globalization, it will not be long before English can be made as a single language of the world like the single currency and the union of various nations. In today's global world, the importance of English cannot be denied and ignored since English is the most common language

spoken everywhere. With the help of developing technology, English has been playing a major role in many sectors including medicine, engineering, and education, which is the most important area where English is needed. There are various reasons for the importance of English language. They are listed below:

1.1.1 English as a Universal Language

When a person travels to another part of the world either for the sake of business or even as a tourist, the languages may differ. In these conditions, English is the language that helps people to deal with the situation. It is like a universal language.

1.1.2 English, A Link Language in a Multi-lingual Country like

India

In country like India where the land is so vast and people of various cultures live, the languages of each part of the country also differ. Under the circumstances, English can be the only link as people in each place will be able to learn all the other languages to communicate with the people. English bridges this gap and connects the people. India is very rich in languages. There are an uncountable number of languages being spoken in India. Today, due to rapid industrialization and bustling influence of multinationals in the economy, English has become the most common language, after Hindi, being spoken in India.

1.1.3 English as a Language of Science and Technology

In spite of the growth of internet in various languages, English is the mainstay of the Internet users. This is the language in which most of the information and websites are available. It is very difficult to translate each and every relevant webpage into the language of various countries. With internet becoming very important in E – commerce and also in education, English language is bound to grow.

Thus the importance of English as a language is emphasized. The future of English as a language is very secure in this era of globalization as this language is emerging as a link among people living in different countries, speaking different languages.

1.2 Status of English in The Indian Educational System

It was always a matter of controversy and contention whether English should be the official language of the country or not. According to several nationalists, English is a big hurdle in the development of other languages in our country. But English is a sad heritage of our past imperialist masters. In the early stages of its introduction, the acceptance was good as it was supported by the enlightened elite who thought that the learning of the language would open up many opportunities to project Indians on international platforms. During the freedom struggle leaders like Gandhiji, Tagore and Azad attached more importance to the learning of the mother tongue. But Nehru and Radhakrishnan laid more emphasis on the learning of the English language because of their foresight and the relative importance of the language in the world.

The Indian education system can be divided into three stages – primary, secondary and higher education. English was to be taught as either a second language or a third language. At the primary level, vernacular medium was preferred and hence mother tongue is taught from class I, second language from class II and third language from class V.

The present scenario represents the importance of English as a language of science and technology. At the higher level of study, English as a medium of instruction is more useful than any other language. For higher education, mastery of English is mandatory as maximum numbers of books are available only in English.

In view of the above facts, the Kothari Commission, National policy of Education and University Grants Commission recommended English as the medium of instruction at higher education level. The national policy of education in 1986 supported English as a scientific language, which was further emphasized by Acharya Ramamurthy Committee. The UGC has recommended that at least the national level training institutes should use English as the medium of instruction. In India, English is retained as a medium of instruction at university stage because in professional and Technical courses like medicine, engineering, law, agriculture, computers, etc. the books are more readily available all over the world in English.

1.3 Importance of English for Higher Education

The presence of English as a universal language assumes importance in the fact that more and more people leave their countries not for the sake of business and pleasure,

but also for study. Education has increased the role of English. People who go to another country to study can only have English as their medium of study. This is because the individual will not be able to learn a subject in the local language of the country. This reinforces the fact that English Language is very important.

1.4 Multimedia

The teaching learning is a crucial aspect of the educational phenomenon. All modern audio- visual aids help to promote the teaching learning activities. The development of computer technology and information technology play an important role in today's teaching learning process.

The term Multimedia is made of two words multi and media. Multi means many and media means the way by which we communicate.

Now we define the term multimedia as follow:

“The technologies of using text and words, diagrams, graphics, a sound and video image collectively to show everything effectively is called as multimedia.”

“Multimedia is the field concerned with the computer-controlled integration of text, graphics, drawings, still and moving images (Video), animation, audio, and any other media where every type of information can be represented, stored, transmitted and processed digitally.”

“A Multimedia Application is an Application which uses a collection of multiple media sources e.g. text, graphics, images, sound/audio, animation and video.”

As the term implies, "multimedia" literally involves using more than one type of media--usually text, graphics, animation and sound--to produce an object.

Multimedia is the term used to describe two or more types of media combined into a single package—usually denoting a combination of some or all of the following:

video, sound, animation, text, and pictures. Multimedia gives the user opportunity to influence the presentation of material. The selection and manipulation of various aspects of the presentation material is the interactive aspect of a multimedia presentation.

1.5 Importance of Multimedia Programme in Education

Multimedia literacy is a growing concern among educators as societies worldwide continues to depend on image technologies such as television, video, and film.

Educators need to prepare children to live and function in a society that relies on Multimedia for information storage.

Multimedia can be used in instruction in a variety of creative and stimulating ways. Applications include teacher presentations, student projects, and discovery learning. Although teachers are encouraged to develop their own materials, many excellent educational multimedia products are also available.

There are a number of reasons for arguments which supports incorporation of multimedia in classrooms.

By incorporating multimedia in the instruction, teachers can capture attention, engage learners, explain difficult concepts, inspire creativity, and have fun. However, there are many tools available and many ways to use those tools.

Utilization of multimedia resources is very essential because they offer the following advantages:

(a) Portability: With multimedia, learning can happen anytime, anywhere. Students can listen to a podcast or view a vodcast at home, in the car or on a field trip. These tools are great ways to reinforce concepts and enable students to learn.

(b) Flexibility: Today's resources let us demonstrate concepts and lessons in ways that textbooks and classroom lectures alone can't.

(c) Individualized Learning: Multimedia resources can help you meet the needs of many different types of learners. Visual learners can watch an online video, while auditory learners listen to streaming audio and hands-on learners play an interactive game. Students who need extra practice can use these tools again and again.

(d) Collaboration and Community Building: Blogs, social networking sites and wikis allow students to interact with and teach each other, not only within their own school, but with learners across the country and the world as well.

(e) A Broader View of the World: Multimedia resources can help students to experience today's global community. With multimedia, students can learn about new

cultures and countries in immediate and authentic ways – and prepare to interact with that broader community in an increasingly collaborative global job market.

In addition, multimedia activities encourage students to work in groups, express their knowledge in multiple ways, solve problems, revise their own work, and construct knowledge. The advantages of integrating multimedia in the classroom are many. Through participation in multimedia activities, briefly, students can learn:

- (a) Real-world skills related to technology;
- (b) The value of teamwork;
- (c) Effective collaboration techniques;
- (d) The impact and importance of different media;
- (e) The challenges of communicating to different audiences;
- (f) How to present information in compelling ways;
- (g) Techniques for synthesizing and analyzing complex content;
- (h) The importance of research, planning, and organization skills;
- (i) The significance of presentation and speaking skills;
- (j) How to accept and provide constructive feedback;
- (k) How to express their ideas creatively;

As we can see from these ideas, we can easily align instructional goals and empower instruction through using appropriate multimedia tools. It takes some planning, time, and expenditures (video cameras, software), but in the long run, students will reap many benefits, such as taking more responsibility for their learning, becoming aware of their learning and how to document it, and realizing their own creative potential.

It should be noted that there are some constraints to using multimedia in the classroom, which any teacher should take into account during decision making on using multimedia in classroom, including:

- (a) Technological resources, both hardware and software;
- (b) Technological skills, for both the students and teacher;
- (c) Time required planning, designing, developing, and evaluating multimedia activities.

As the role of multimedia increases and policy drives ICT use to the heart of education, it is increasingly important to have an idea of the potentialities afforded by multimedia for teaching and learning.

It is very crucial to build on teacher competence and experience to consider the implications of multimedia in education, at policy, resource, system development and use level.

With increased ICT and multimedia literacy among students it is important that teachers gain an understanding of what multimedia can do in the classroom context.

1.6 Components of Multimedia

1. Text

Text is one of the most widely used multimedia building blocks. The intensity of text usage depends greatly on the purpose of the programme. We can use and display text in different forms for different purposes. Most multimedia systems use a combination of text and other media to deliver functionality. Text in multimedia systems can express specific information. These are some possible uses.

1. Titles
2. Buttons
3. Bullets
4. Paragraphs
5. Scrolling text

2. Graphics

A graphic is a multimedia application which is more appealing and meaningful than a thousand text characters. People often learn and retain more information from pictures than from other forms of information. This is a function of their learning style. Learning styles are the various methods individuals have for perceiving and processing information while reacting to their environment. The integration of graphics into a multimedia application could include the following elements.

1. Background
2. Photos
3. Three – dimensional picture
4. Charts
5. Flowcharts
6. Drawing
7. Clip art

8. Buttons (icons)

3. Audio

Audio files and streams play a major role in some multimedia systems. Audio files appear as part of application content and also to aid interaction. All the information need not be text or visual. Sound (music, narration and sound special effects) can enhance the application significantly. Sound should be considered while planning the application. Some forms of sounds that can be used are:

1. Special sound effects.
2. Narration.
3. Audio tracks from analog or digital sources.
4. Background music.

4. Video

Digital video appears in many multimedia applications, particularly on the Web. As with audio, websites can stream digital video to increase the speed and availability of playback. To integrate video into an interactive multimedia application, we can employ a number of different technologies, including the following:

- (a) A video window displaying the output of a laser disc or video tape player
- (b) A video window displaying a live TV signal or a broadcast signal using PC-TV.

The following factors should be considered when planning the application:

- (a) Goals of the application
- (b) Availability of the video footage
- (c) Length of video to be displayed
- (d) Video window size

5. Animation

Animated components are common within both Web and desktop multimedia applications. Animations can also include interactive effects, allowing users to engage with the animation action using their mouse and keyboard. The most common tool for creating animations on the Web is Adobe Flash, which also facilitates desktop applications.

1.7 Statement of the Problem

Effectiveness of the Multimedia Programme to teach English

1.8 Rationale of the Study

Now days so many new experiments have been conducted in education. Among all this experiments multimedia has played its unique role to enhance the quality of education. The multimedia has not restricted up to technological subjects but language learning as well. The investigator found the importance of the prevalent of technology very effective mode to teach language in better way. For the selection of the research problem the investigator selects the specific problem for the research study. The reason of selecting the research problem is that, in present era the use of multimedia in each and every field is important and necessary. One cannot neglect the efficiency of multimedia in every field. In education multimedia is used in different way for teaching and learning in classroom. Learning with the help of multimedia provides exposure, develops inner abilities and thinking skills and also helps to remove the fear, shyness in communicating in a group of people and develops language and confidence in speaking the language.

1.9 Operationalization of the Terms

1) Effectiveness

In this research, effectiveness implies the effect caused by the multimedia programme in terms the difference in the mean achievement scores of Experimental and Control Group.

2) Multimedia programme

In the present study, Multimedia Programme is inclusive of multiple media- such as visual imagery, text, video, sound, and animation – which together can multiply the impact of study.

1.10 Objectives of the Study

- 1) To study the effectiveness of multimedia programme in terms of achievement of students.**
- 2) To study the effectiveness of multimedia Programme in terms of reactions of students.**

1.11 Hypotheses

Ho₁ There will be no significant difference in Mean achievement scores of Control Group and Experimental Group on Post-test.

Ho₂ There will be no significant difference between observed frequency and frequencies expected on various statements of reaction scale.

1.12 Variables of the Study

- Independent variable - Multimedia Programme
- Dependent variable – Achievement of students
Reaction of students

1.13 Delimitation of the Study

The multimedia programme is delimited to few activities of the chapter 2- ‘You Love English, Don’t You?’ From the English textbook of standard VIII.

1.14 Scheme of Chapterization

Chapter- 1: Introduction begins with an introductory note of the problem of study. It also states the objectives of the study, delimitation of the study, operationalization of the terms, hypotheses and rationale of the study.

Chapter- 2: Review of related literature focuses on reviews of researches already conducted. It includes different studies reviewed for the present work.

Chapter- 3: Research Methodology focuses on the methodology adopted in the present study. It describes in detail the research design selected for the present study, tools used and procedure adopted for data collection and data analysis.

Chapter – 4: Analysis and Interpretation deals with analysis of the data and interpretation of the data. It also presents the analysis of reaction scale of students collected by the researcher.

Chapter – 5: “Findings, Suggestions and Conclusion” is the last chapter which deals with the findings of the study and then educational implications of the study. It also presents some suggestions for future studies that can be undertaken in the field.

1.15 Conclusion

English is one of the most important language in the world. It can even be said to be the single most important language. English is important because it is the only language that truly links the whole world together. Through English the whole world is united. English can be used as a language in any part of the world. This is because at least a few people in each locality would know the language. Though these people might not have the same accent as others, the language at least will be understandable. So English is very important in the all aspects of life. So, in today's global era, English language learning is most necessary to deal with human being in the whole world.

The next chapter in this dissertation is about the review of related literature

Chapter – 2

Review of Related Literature

2.0 Introduction

This chapter provides a comprehensive review of related literature relevant to the research conducted in this area. The major focus of this chapter is to flourish better understanding regarding the effectiveness of use of multimedia program. It may be noted that most of the studies reviewed here are related to effectiveness of the program, development and implementation of the program, technology based program and computer assisted learning program. Review of these research studies has given the researcher a clear idea about the objectives, methodology, tools, procedure of research and techniques used for data analysis. After reviewing the researcher has divided the research studies into three categories experimental studies, survey studies and miscellaneous studies.

2.1 Review of Related Literature

The study of related literature also gives an idea about the different approaches, methods, tools and equipments, Identification of problem, selection of samples, statistical techniques, evaluation and measurement of the research work already done and major findings of the previous research work. Thus, the review of related literature provides some insight regarding some points and limitations of the previous studies. Researcher has bifurcated the studies into two parts .One is the studied conducted based on effectiveness of multimedia to teach English and second is the studies conducted based on effectiveness of multimedia to teach other subjects.

2.1.1 Studies conducted on effectiveness of multimedia to Teach English

Patel P. (2005) has conducted study on ‘ *Impact of Technology Integrated Project Based Learning on Students at the Higher Secondary Level(Second language)*’ it is an experimental study, the objective of the study are : to review the literature related to project based learning in general, Select the lesson from class XI Arts students of

second language and prepare a unit plan and teacher support materials for project based learning, select a school where there are more than one section of Gujarati medium students who are using this text book, give a pre and post test to the class, compare the result of the class. Collect feedback from the teacher and students. The findings of the study are: 1) Students of experimental group enjoyed more than the corresponding control group. They felt that they had been exposed to a natural way of learning a language. 2) They enjoyed working in groups and understanding the individuals' responsibilities regarding their project work more rather than sitting passively in classroom. 3) If the learners were given more exposure regarding their projects, they would definitely be able to frame hypotheses and test them on their own.

Parmar N.(2007) carried out the study to see the effect of '*Developing Technology Aided Material for Teaching Vocabulary to Class VIII Students*' used questionnaire as a tool, the 30 sample of class VIII and the objective of the study follows : to analyses the text book of class VIII (second language) and identify the vocabulary that can be taught through technology aided material, to prepare a set of technology aided materials to teach vocabulary of std VIII student , to validate the materials by experts of ELT, to apply these materials to teach vocabulary, to analyze the feedback, find out the usefulness and importance of material, effectiveness of teaching through technology aided. The study includes the following key findings: 1) Students enjoyed learning through the CALL materials which were used to support instruction made the students more motivated to learn. 2) The materials had a positive impact on improving vocabulary of the students. 3) The student learn with the interest and enjoyed the learning and learnt better through the CALL material useful and they liked the variety in the types of the tasks.

Patel R. (2008) in his research study '*A Study of Psychological Challenges of ICT Integration Faced by Teachers of English at Secondary School Level*' used questionnaire, observation and Interviews as a tool. The study had following objectives like identifying the psychological challenges of ICT Integration, offering suggestion based on the finding of the problem and sensitizing the teachers to integrate ICT while teaching. The findings of the study are: the ICT based result indicates the reduction of importance of teacher, ICT enhances the co ordination

among teacher and students among learning process, ICT also motivate the student and also helpful in designing curriculum in different way.

Bhusan, B.(2011). Conducted study on ***“Developing and Implementing Program for English at B.Ed. level”*** The objectives of the study were to develop and implement technology enable program for English at B.Ed. level, to study the effectiveness of the program in terms of the achievement of the students, to study the reaction of students towards developed program. Population of the study was all the B.Ed. colleges of Gujarat. The Sample was drawn by convenient sampling procedure. One college was selected as the sample. The Selection of the students was done by cluster sampling. The data analyzed by using ‘t’ test. The study found that TIP was effective for teaching English at B.Ed. level. It helped the students to improve four basic skills L-S-R-W. The students were found to have positive reactions towards the developed TIP on various dimensions such as colour pictures, understanding, commentary, explanation given by Researcher.

Gohil, M.(2011). Conducted study on ***‘Development and Implementation of Computer Assisted Learning Program in Teaching English at Standard 9th’***. The objectives of study were to develop and implement CAL program for teaching English language at Std. IX to study the effectiveness of the program in term of the achievement of students, to study the reaction of students towards the developed CAL programme, to study the reactions of teachers towards the developed CAL program. All the schools of Gujarat state were constituted the population for the present study. Convenient sampling technique was adopted for selection of the sample. One school was selected as a sample. The collected data were analyzed by using ‘t’ test. The study found that the significant difference score at control group and experimental group students, Most of the students and teacher were found to have positive reactions towards the CAL program. Teacher welcomed the media integrated approach towards students’ center learning and the result showed that the CAL method was more effective than the conventional method for the selected poems of the standard IX. The CAL program decreased teacher domination of discussion in classroom.

Patel, P. (2012). Conducted study on ***“Effectiveness of Computer Assisted Learning Package in Teaching English At Standard VIII”*** The objectives of the study were to develop Computer Assisted Learning (CAL) package for teaching English at standard VIII, to implement Computer Assisted Learning (CAL) package for teaching English at standard VIII, to study the effectiveness of the Computer Assisted Learning (CAL) package in terms of achievement of students, to study the feedback of students towards developed Computer Assisted Learning (CAL) package. The population of the study comprised of all the students of Std VIII of the Gujarati Medium School of GSHSE in 2011-12. The study found that the analysis of the data obtained for assessing the effectiveness of CAL package in teaching English at standard VIII shows a positive impact on the experimental group. The performance of the students of the experimental group who were exposed to the CAL package was far better than the control group. Even the students of the experimental group showed better retention of the content than the control group. The improvement in performance of students both qualitatively as well as quantitatively can be attributed to the use of CAL package. As the developed CAL package was interesting and interactive for the students, its content was easy, meaningful and appropriate, students felt that learning through CAL package was joyful and meaningful. These factors together led the improved performance of the students.

Solanki, C. (2014) conducted a study entitled ***‘Effectiveness of a Computer Assisted Learning Package to Enhance English Language Proficiency of Pre-service Teachers.’*** The objective of the study were to develop and implement computer assisted learning programme to enhance English language proficiency of pre-service teachers, To study various Computer Assisted Learning (CAL) packages already prepared by experts with a view developing insights into preparation of CAL materials, To develop Computer Assisted Learning (CAL) package for teaching English to pre-service teachers in Gujarati medium. B.Ed course. To implement the Computer assisted learning package for teaching English to the pre-service teachers. All the Gujarati medium B.Ed colleges of the S.P.University formed the population of the study. The sample was drawn by Convenient sampling procedure .One college was selected as the sample. Major findings of the study were that, the use of CAL materials helped Pre-Service Teachers to do more interaction in the classroom. This made the classroom environment friendlier among the Pre-Service Teachers, the

computed 't' value of 33.61 is higher than the table value $t =$ value of 2.98 at 0.01 level and 2.14 at 0.05 level. So the null hypothesis that there will be no significant difference between pre-test and post-test mean is rejected. In term of implementation of the CAL package based plan in real teaching environment the responses indicated that Pre-Service Teachers developed basic and competencies.

Soni, P. (2014) "*Development and Implementation of Computer Assisted learning Program for Teaching English at Std VIII*" the objectives of the study were : to develop and implement computer assisted learning program for teaching English at standard VIII, to study the effectiveness of computer assisted learning program in terms of the achievement of the students, to study the effectiveness of computer assisted learning program in terms of the reaction of the students towards the CAL program .The population of the study comprised of all the students of Std VIII of the Gujarati Medium School of GSHSE in 2013-14. The sample was drawn by convenient sampling procedure. Major findings of the study were that, the significant difference existed in mean achievement score of control group and experimental group students, the study found that CAL program helped to develop interest in learning English, most of the students were found to have positive reaction towards the CAL program, the active participation of students reflected that they had enjoyed learning through computer, The developed CAL program motivates the students to go beyond the point of initial mastery and practice until they become autocratic.

2.1.2. Studies conducted on effectiveness of multimedia to Teach Other Subjects

Shah, S.G. (1979) has conducted study on "*Development and Tryout of Multi-media Package on Effective Questioning in the Context of Microteaching*" Ph.D. Edu. , SGU. The objectives of the study were: 1) to develop self-instructional multi-media package on effective questioning which would be helpful to pre-service and in-service secondary schools teachers and 2) to try out the package by experimentation and to explore the feasibility of the self-instructional multi-media package.

The sample consisted of thirty-two teachers selected randomly, out of whom sixteen were in-service teachers teaching in secondary sections of Gujarati- medium schools of Surat city and sixteen were teachers –trainees from a college of education. The researcher developed the multi-media package on questioning skill. Data were

collected through tools such as the background information sheet, attitude inventory scale, behaviour coding system, evaluation guide for ratters, perception of the teachers about multi-media package, and interview schedule for qualitative evaluation of multi-media package. The experiment was conducted by using single group design. The data collected were analyzed by using t-test and chi-square test.

The major findings of the study were 1) the teachers who were exposed to treatment of the self-instructional multi-media package course showed significant improvement in all the skills except one. 2) As regards the percentage of the pupil talk, there was significant improvement. 3) Sixteen of the seventeen measures showed significant difference at 0.01 levels between the pre-test scores and the retention scores. 4) The self-rating scores of the teachers showed that they had a feeling of improvement in the use of eleven questioning skills out of the twelve. 5) The result about the opinion of the teachers revealed that they did realize the utility of the microteaching technique for practicing the skills. 5) The qualitative evaluation of the package led to the conclusion that the teachers were quite satisfied with the package course so far as its educative importance was concerned.

Basu, M. (1981). Conducted study on ***“Effectiveness of Multimedia Programmes Materials in the Teaching of Physics”*** (Ph.D.). The main purpose of the study was to make an appraisal of the relative effectiveness of multimedia programmed instructions and programmed class-teaching on the criteria of immediate achievement and retention of a group of subjects at three levels of ability. The specific objectives of the study were 1) to develop instructional materials for the strategy of programmed class-teaching and to study its effectives, 2) to develop the programmed learning materials on light in school physics in four different styles- semi-programme, linear programme, branching programme, and hybrid programme 3) to develop a multimedia programme package using each style of programme in conjunction with audio-visual media 4) to compare the relative effectiveness of different strategies of instruction employing multimedia material and programmed class-teaching on the criteria of immediate achievement, retention and delayed retention, and 5) to study the interaction effects of instructional strategies, abilities and occasions (immediate learning, retention and delayed retention)

The sample consisted of 400 learners of standard IX which comprised an equal number of boys and girls. The tools used were A Group Test of Intelligence

B.E.P.R.T in Bengali, the Entry Level Tests, and criterion referenced Tests I, II and III. Five treatment groups were T-1 having programmed lessons, T-2 having a semi-programmed text, T-3 with a linear programmed text, T-4 having a branching programmed text, T-5 having a hybrid programmed text. The experiment was performed in schools for a pretty long time in three phases. The study has following findings: 1) there was a significant difference among the different strategy means on the criterion on overall achievement. 2) The strategies of multimedia programmed instruction enabled learners to reach the level of mastery learning. 3) It was found that a significant difference existed in the achievement through the different strategies due to differences in ability.

Golani, T. (1982) has conducted study on ***“The Use of Audio-visual Aids in the Secondary Schools of District Thane”*** Ph.D., Edu. Poona Uni. The objectives of the study were: 1) to create awareness among teachers and headmasters of secondary schools about the importance of audio-visual aids, 2) To help in raising the academic standard in secondary schools of Thane district, 3) To know the existing situation regarding audio-visual materials in the secondary schools of Thane district, 4) To elicit the opinions of headmasters and concerned teachers about the measures for providing better and improvised materials on audio-visual education, and 5) To present these measures in the form of concrete proposals and their implications for secondary schools as well as for the professional courses in training teachers and preparing materials for audio-visual aids in education.

The methodology consisted of library study, empirical survey through questionnaire, interview, visits and observation and field experiment. A survey was conducted in 217 secondary schools in Thane district. Experiments were conducted in 20 schools to demonstrate the advantage of using audio-visual aids in teaching subjects like social studies, mathematics, sciences and languages.

The findings of the study were: 1) According to the opinions of the secondary schools under survey, the teaching aids were essential and useful in developing clear concepts and in stimulating learning. 2) The audio-visual aids being expensive, the schools could not afford to purchase them. Sophisticated aids like tape recorder, radio, television set and projectors, were out of the question in many of the schools as they were exorbitantly costly. 3) Audio-visual aids were not easily made available whenever required. 4) Due to difficulty of transport facilities in rural areas, the audio-

visual aids were not available even on loan. 5) The use of audio-visual materials could be increased if teachers were allowed some free time for the location and preparation of requisite materials; because they had to perform many other duties in addition to teaching, they did not usually find time. 6) Because of non-availability of trained personnel in audio-visual education, there was lack of guidance and assistance to the teachers. 7) Some schools had projectors, but few films and due to non-availability of technicians, the projectors were lying unused.

Ramachandra, K. (1982) has conducted study on ***“A Study on Use of Visual Aids by Teachers of University of Agriculture Sciences, Bangalore”*** Ph.D., Edu. (Agri.), Agri. Sci.Uni, Bangalore. The major objectives of the study were: 1) Evaluating the current use of visual aids by the teachers of Agricultural University. 2) Identifying the factors governing the use of visual aids. 3) Finding out the association between the visual aids use level and the factors governing their use. 4) Finding out the association between the visual aids, use level and the visual aids use determinant level. 5) Identifying the relative influence of the factors associated with the visual aids use level

All teachers, research workers and extension workers located in the four teaching campuses who had taught at least two courses to either undergraduate or post-graduate students for the last two years (1977-1978) were included as respondents in this study. Out of 279 respondents selected, only 234 responded, which formed the sample for the study. A simple and objective scale was designed to measure visual aids use level covering the visual aids such as chalk board, maps, graphs, charts, flip charts, flannel graphs etc. The indices of test-retest reliability for this ranged from 0.770 to 1.00. Mean, median, coefficients of correlation and multiple discriminant analysis were used for analyzing the data.

The major findings of the study were: 1) The visual aids use level index values were low in basic science and humanities and were high in other agricultural colleges, veterinary colleges, and fisheries colleges. 2) Though slight variations were seen in the mean and median values of visual aids use index among teachers of different age groups, the association between the age and the visual aids use level was significant. 3) The association between the visual aids uses indices and teachers' qualifications, experience, training status was significant. 4) Other factors like the number of times the course was offered, the number of students per class, undergraduate or

postgraduate level of teaching, training on visual aids, attitude towards visual aids, budget allotment on visual aids though they affected the mean values slightly, did not have significant association with the visual aids use level. 5) The association between the visual aids uses level and the visual aids use determinant level was positive and significant.

Ravindranath, M. (1982) has conducted study on ***“Development of Multi-media Instructional Strategy for Teaching Science (Biology) at Secondary Level”*** Ph.D. Edu., MSU. The main objectives of the investigation were: 1) To develop a duly validated multi-media instructional strategy for teaching the course in biology at Standard VIII, 2) To study the relationship between students’ achievement and intelligence, 3) To study the feasibility of the strategy in terms of time and cost, and 4) To develop alternative instructional components for teaching a few concepts and study their relative effectiveness.

The strategy developed by the investigator covered the prescribed content in biology for Standard VIII through different units. The multi - media strategy arrived at comprised twelve instructional components, namely, introduction by the teacher, programmed learning material (PLM), lecture, team teaching, inquiry technique, pupil activities with teacher demonstrations, discussions, audio-visual presentation, criterion test and feedback, and exercises and assignments. Achievement scores of students with respect to three levels of intelligence were analyzed with the help of analysis of variance. Relative effectiveness of two types of PLM, Namely, inductive PLM and deductive PLM, was studied in respect of a few selected units. The sample for this included all the forty-five students of the experimental group, who were divided into two matched groups of twenty-two and twenty- three students.

The major findings of the investigation were: 1) The experimental group students performed better than the control group on the comprehensive test and also on the annual examination conducted by the school authorities. 2) Development of scientific attitude was significantly higher for the experimental group students. 3) About 70 percent students expressed favourable reactions to all the components except towards team teaching. 4) There was positive and significant correlation between intelligence and achievement through the strategy. 5) The strategy was quite feasible in terms of time as it required only ten additional periods spread over the

whole year for completing the course. 6) Both types of PLM, namely, inductive and deductive, were equally effective as instructional material.

Krishnan, S. (1983). Conducted study on ***“Development of Multimedia Package for Teaching a Course on Audio-Visual Education”*** Ph.D. Edu., MSU. The major objectives of the study were 1) to develop a multimedia package for teaching a course on audio- visual education for the instructor training programme, 2) to find the effectiveness of the multimedia package in terms of achievement of trainees and change in attitude of the instructor trainees towards the multimedia package, and 3) to study the feasibility of the multimedia package in terms of time and cost for the instructor training programme.

To attain the above objectives, a single group design was evolved. As many as 127 instructor trainees enrolled during the year 1981- 82 at the Central Training Institute for Instructors, Madras were treated as the sample of the study. There were five modules containing the full course units. The components of the modules were programmed slides, programmed instructional materials, with a manual for practical exercises, feedback form, discussions etc. The tools used for data collection were criterion tests, comprehensive course tests and an attitude scale prepared by the investigator, and an English language ability test designed at the matriculation level.

Major findings of the study were: 1) Ninety-eight percent of the trainees obtained more than 80 percent of the marks on the final post-test. 2) The mean percentages of the post-test scores varied from 81.41 to 90.46. 3) The mean gain in the total scores for all the modules was found to be significant at 0.01 levels. 4) The mean gain scores of knowledge, comprehension and higher mental abilities were found to be significant at 0.01 levels. 5) The mean attitude change was found to be significant at 0.01 levels. 6) The achievement of trainees and their language ability were found to be positively related at 0.01 level of significance. 7) The feasibility of the multimedia package was established in terms of cost involved in reproduction of the various resource materials and the time scheduling in an actual institutional set-up.

Menon, M.(1984). Conducted study on ***“Evolving a Multimedia Approach to Teaching at Post- graduate Level”*** Ph.D, Edu, MSU. The major objectives of the study were 1) to develop a multimedia strategy in organizing a course in educational technology for postgraduate and research students, 2) to validate the strategy in terms

of students' performance in criterion tests and discussion sessions, and their attitude towards the strategy, 3) to study the relationship between achievement and intelligence, and achievement and English reading comprehension, and 5) to study the feasibility of the strategy. A single group design was worked out for carrying out the investigation over a long period of time. The sample for validation study consisted of 21 M.Ed. Students, 15 M.Sc , Home Science students and eight research students of Education during the 1977-18 session. The instructional inputs of the strategy were PLM, structured lecture, team teaching, seminar, slide-tape, commentary, work-book presentation, discussion, library work etc. The tools used for the study were the criterion test, an observation schedule, and an attitude scale prepared by the investigator, Govinda's English Reading Comprehension and Raven's Standard Progressive Matrices.

The findings of the study were: 1) In the initial year, around 90 percent Ph.D. students and M.Sc and M.sc students scored 60 percent and above marks on the Comprehensive Criterion Test, 2) In the subsequent year around 90 percent scored 75 percent and more marks. 3) An improvement trend was witnessed with regard to discussion sessions. 4) At different stages of implementation of the strategy, the students' attitude towards the multimedia approach went on increasing in a favorable direction. 5) During the period of tryout of the strategy for two years, the relationship between intelligence and academic achievement was found not significant.

Rao, L. (1984). Conducted study on ***“A Study of Factors Influencing the Effective Use of Audio- Visual Equipment and Materials in Classroom Teaching”*** Ph.D., MSU. The objectives of the study were 1) to find out the present position of the audio-visual equipment and materials in the secondary schools of East and West Godavari districts of Andhra Pradesh, 2) to determine the factors hindering the effective use of audio –visual equipment and materials in classroom teaching, and 3) to ascertain the attitude of the respondents towards the factors influencing the effective use of audio-visual equipment and materials in classroom teaching.

The study was conducted on a sample of eight schools by mailing four types of questionnaires for the availability of audio-visual equipment and materials and their effective use in classroom teaching. The following tools were developed 1) questionnaire on the availability of audio-visual equipment, 2) questionnaire on the

availability of audio-visual materials, 3) questionnaire on the effective use of audio-visual materials in classroom teaching.

The major findings were: 1) The position of the audio- visual equipment in the schools was poor. 2) There was a significant relationship between the availability of the equipment and the type of the management of the school. 3) There was association between the availability of the equipment in the schools and their locality. 4) There was a relationship between the availability of the audio-visual equipment and the age of the schools. 5) There was a relationship between the availability of the audio-visual equipment and the type of school. 6) There was no positive association between the availability of audio- visual equipment and the strength of the school. 7) There was no positive association between the effective or ineffective use of audio-visual equipment in classroom teaching and the type of management. 8) There was no significant relationship between the effective use of audio-visual equipment in classroom teaching and the locality of the schools.

Jayaraman S. (2006) in his study, '*A Study of relative Effectiveness of Computer Based Multimedia Learning Packages on Performance and Behavioural outcomes of Students of Different Age Groups*' the researcher has suitably employed experimental design using pre-test and post-test as a tool, the object of the study are, to identify hard topics, perceived by the teachers and students of the develop three multimedia packages separately each for, compare the gain percentage of different age group of students, study the relative performance and behavior of the different group of students. The study had arrived the findings as follow: 1) Signify the performance of the student who has learned through multimedia is higher than the student learned through traditional. 2) The higher age group of students have been found mere auditory and the lower group found visual to student were found satisfied with the study.

Patil A. (2006) studied on '*Development of Multimedia Instructional System on Computer Education for B.Ed pupil Teacher*', used pre-test and post-test as a tool. The study had following objectives: analyze the conventional system for computer in education, design and construct multimedia in system for computer education, to test the effectiveness of the constructed multimedia instructional system, to compare the

effectiveness of the constructed multimedia instructional system with the conventional of instruction, equip the pupil teacher and teacher educators with reliable system to overcome the difficulties in course of computers education instruction.

The study has arrived at quite meaningful findings as follows: the present setting of teaching of computer education in B.Ed colleges was found unsatisfaction, it found design develop and implement a computer based multimedia instruction system for computer education. 1) No significant difference was found between the performance of the pupil teacher on control group and experimental group on pre-test, significant difference was found between the performance of the pupil teachers of control and experimental group on post test. 2) Significant difference was found between the performances of the pupil teachers of experimental group from pre to post test. 3) There is significant difference between the performances of the pupil teachers of experimental group from pre to post test. 4) There is significant difference between the gains in achievement in terms of scores in pre test and post test of the pupil teachers from pre to post test. 5) There is significance difference between the performance of the pupil teachers from control and experimental groups in retention test.

Rayappan. (2007), has conducted study on ***“Development and Implementation of a Computer Based Multimedia Software Program to Enhance Environmental Awareness in the Students of Standard IX”*** The objectives of the study were to develop a computer based multimedia software program on environmental awareness in the students of standard-IX, to study the effectiveness of the program in terms of mean achievement of students on environmental awareness, to study the effectiveness of the program in terms of reactions of the students towards environmental awareness programme. Population of the study was all the students of std.IX studying in English medium in the schools of Baroda. Sample was drawn by convenient sampling procedure. Two schools were selected as the sample. The study found that the multimedia instructional software program was found to be effective in enhancing environmental awareness. Reaction of students on Multimedia program on Environmental Awareness in terms of frequencies and percentage responses found to be effective.

Parmer A. (2009) conducted a study '***A Study in Developing Self-Directed Learning Skills and Learner Autonomy through Web Blogs***'. The researcher employed quantitative and qualitative method for the study. The sample selected was B.C.A. (second year) students of P.M. Patel College of Computer Science and Technology. The research study had these following objectives to identify range of SDL skills used by the BCA students, investigate the effect of blogging on SDL skills, Arrive at set of language learning strategies being used by good self directed learner. The findings of the research study as follow : 1) Blog assisted language learning can faster learner autonomy by developing their SDL skills and making them more self reliant by giving them power of making choices about their decisions, 2) Blogging can developed independent decision making skills and the ability to take independent action, can provide be creativity used to advance independence in group learning, 3) Can provide new learning environment to the learners rather than traditional model of learning in class. 4) Can help learners assume personal and carry out learning plan sequence and systematically, can be effectively used in language learning in general and English in particular.

Gadhvi, H. (2011). Conducted study on "***Development and Effectiveness of Multimedia Program in Sanskrit Grammar for Standard IX students***" The objectives of the study were – to develop multimedia program on Sanskrit grammar for standard IX students, to study the effectiveness of the multimedia program in terms of achievements of standard IX students on Sanskrit grammar, to study the reaction of the standard IX students on the multimedia program developed by the investigator. All the standard IX students of the Gujarati Medium secondary schools of Baroda city in Gujarat state followed GSHSEB syllabus were the target population of the present study. One school selected as the sample for the present study. Pre-test and post-test are used to collect the data. Data are analyzed by statistics techniques. To study the effectiveness of developed multimedia program, Mean, Standard Deviation, Standard Error of difference and 't' value were computed. To study the reactions of the students towards developed multimedia program CHI- SQUARE was calculated. The study found the multimedia program can use very well for remediation purpose; prepared multimedia program in Sanskrit was found effective in teaching Sanskrit to standard IX students as the post- test score was found

significantly more than pre-test score. The reaction of students towards the prepared multimedia program in Sanskrit was found positive.

Jat,S. (2014). Conducted study on **“Effectiveness of Computer Assisted Programme for Students of Std- IX in Mathematics”** The objectives of the study were to study the reaction of students towards developed programme, to evaluate the effectiveness of the programme by comparing the mean scores of post-test between Experimental Group and Control Group. The population of the study comprised of all the students of Std-IX of the English Medium Schools of Gujarat. The sample of the study comprised 80 students of Charotar English Medium School, Anand. School was selected through convenient sampling and students were selected through cluster sampling. Major findings of the study were that, computer assisted programme learning helped to clear the doubts of the learners, interaction between teachers and students increased, the result of this study strongly suggest that the Computer assisted programme had positive impact the learner as it develop interest among learners, the data from the research has confirmed a significant increase in academic achievement of students taught through CAP.

2.2 Conclusion

The researcher came to know about the research procedure, different tools were used, suggestion findings of the studied on the different evolution of the textbook were recommended. It also helped the researcher to find out the related study and brought forth ideas related to the further study.

Chapter – 3

Research Methodology

3.0 Introduction

This chapter contains research design, research type, population, sampling technique, tools description, data collection process and an overview of the data analysis techniques. It gives the clear idea of the study conducted by the researcher and the process of the research endeavour.

The present chapter presents effectiveness of Multimedia program to teach English in terms of the mean achievement scores of control group and experimental group. The methodology used to study the effectiveness of multimedia program is describe below in terms of population, sample, design of the study, tool used, procedure of data collection, data analysis, interpretation and conclusion.

3.1 Research Type

The present research is experimental in nature.

3.2 Research Design

The present research is experimental research. The Present study employed control group and experimental group – post –test design.

E X₁ O₁

C X₂ O₁

E - Experimental Group

C - Control Group

X₁ -Teaching through Multimedia

X₂ -Teaching through traditional method

O₁- Post Test

3.3 Population

The population is said to be the scope of the study i.e. the unit where generalizations with respect to the findings of the study can be made. Population in this study comprised class VIII students of Anand District of the academic session 2014-15, having English as the second language.

3.4 Sample and Sampling Procedure

The sample of students of std. VIII for the present study was selected conveniently. One School Shree D.N. Patel High School and S.V.Patel High school were selected as a sample for the purpose of the present study, as it fulfilled the following requirements of the present study.

Selection of the students was done by cluster sampling.

Table: 3.4.1 Sample Selected for Experiment

No	Groups	Name Of the Schoool	
		Shri D.N. High School, Anand.	Shri S.V. Patel High School, Karamsad
1	Experimental Group	50	-
2	Control Group	-	50
Total		100	

3.5 Tools of Data Collection

Research tools plays a vital role in any worthwhile study as it is the significant factor in determine the sound data which helps in arriving at database conclusions about the study in hand. In the present study, the researcher used two tools.

1. An achievement test for collecting the data (Experimental group – Control group)
(Appendix – A)

2. A reaction scale to find the reactions of the students about the program.

(Appendix – B)

3.6 Procedure for Construction of Tools

The procedure followed for preparing each tool is mentioned below:

3.6.1 Preparation of an Achievement Test

For measuring the achievement of the students of two groups the teacher made achievement test was used in the present study. It consisted of objective type of questions. The test was prepared by the Researcher keeping in mind the content of the selected topics. The weightage of the test was 30 marks. Time allocated for attending paper was 45 minutes. The prepared test was referred to the expert in the field of education. Finally the validated post-test is presented in the Appendix. [Appendix – A]

3.6.2 Preparation of a Reaction Scale

The Investigator prepared Reaction scale for Students to measure the reaction of Students on developed Multimedia program. Investigator had taken into consideration different aspects like language, videos, graphics and synchronization of A.V methods adopted in demonstration of content. The alternatives in the scale were ‘Always’, ‘Often’ and ‘Never’. The Students were asked to respond to those alternatives. To measure reactions of students three point scales was developed by the investigator. The scale is presenter in the Appendix. [Appendix- B]

3.7 Data Collection

The present study is based on effectiveness of multimedia program to teach English to Std. VIII. This required preparation of multimedia program by the researcher. After preparing the multimedia program it was implemented and then its effectiveness was measured. In the third stage reactions of the students were sought out.

For data collection, The Researcher took the permission from one school D.N. High School and S.V. Patel High School. One Division was taken as Control Group and one as Experimental Group.

Data collection was done with the help of above mentioned tools.

Day -1

On the First day, the researcher observed the school, class and given primary instruction to the Experimental Group students regarding of the multimedia program. On the same day they learnt the activity -1 of the Unit -2 ‘You Love English, Don’t You?’

Day -2

On the second day, Researcher has taken 45 minutes for the implementation of the multimedia program on the Activity – 2 of the Unit – 2 ‘You Love English, Don’t You?’

Day – 3

On the third day, Researcher has taken 45 minutes and implemented the multimedia programmes on the Activity – 3 and 4 of the Unit – 2 ‘You Love English Don’t You?’ and observed the responses of the Students and the teacher of English. They told that such type of Programme accepted by the schools immediately for improving the teaching patterns and takes the changes in the learning.

Day – 4

On the fourth day, Researcher has taken 45 minutes and implemented the multimedia programme on the Activity – 5 and 6 of the Unit – 2 ‘You Love English Don’t You?’ and on the base of that activity – 5 and 6, Researcher has given activity -7 as a homework.

Day – 5

On the Fifth day, Researcher has taken 1 hour and implemented the multimedia programme on the Activity – 8 of the Unit – 2 ‘You Love English Don’t You?’ in which there was a story. First researcher has introduced the new words and their meanings. Then researcher has made them to listen the sound and told them that listen and see the images and learn the pronunciation of the new words and through images try to understand the story.

Day – 6

On the last and sixth day, Researcher implemented the Reaction Scale to the students for giving responses towards developed multimedia programme. And on the same day Researcher administered Post-test to both groups, Experimental Group as well as

Control Group. On the same day they gave a confirmation letter as a feedback to the Researcher. This way data collection was done.

3.8 Conclusion

In the present chapter the researcher has presented research design, population, sample, tools for data collection. This chapter is followed by the next chapter data analysis and data interpretation.

Chapter - 4

Data Analysis and Interpretation

4.0 Introduction

This present chapter is devoted to the analysis and interpretation of the collected data to achieve objectives and to test the hypothesis presented in the previous chapter. The present chapter deals with the scores of Post-test, tabulation of the data, data analysis & interpretation. Thus, the objectives and the outcomes of the research have been verified and the hypotheses have been tested.

In this study the calculations are based on the scores of pre-test and post-test. These scores are analyzed and frequency distribution prepared on the same. In addition to that for every frequency distribution Mean and Standard Deviation are calculated.

4.1 Data Analysis and Interpretation

4.1.1 To test the **Hypothesis - 1: There will be no significant difference in Mean achievement scores of Control Group and Experimental Group on Post-test,**

The collected data were analyzed quantitatively using 't' test.

The analyzed data have been presented through Table 4.1.1

Table 4.1.1 Analysis of post- test Mean, SD, SEm, Df, and 't' value

Group	No. of Students	Mean Scores	SD	SEm	Df	t- Value & Significance Level
Experimental	50	21.97	1.96	0.07	98	21.72 & 0.01
Control	50	16.54	3.08	0.18		

Interpretation

The computed 't' value 21.72 is greater than that of the table 't' value of 2.63 at 0.01 level for 98 degree of freedom.

Therefore, the Null hypothesis that there will be no significant difference between the mean achievement scores of Control Group & Experimental Group is rejected.

It means, there is significant difference between the mean achievement scores of Control Group and Experimental Group, which in turn shows effectiveness of the Multimedia Programme to teach English. So, the treatment is found to be effective as evident through the analyzed data.

The Effectiveness of Multimedia Programme to teach English has been found effective as evident through the significant difference in Mean achievement scores of experimental group and control group.

According to the second objective the reactions of the students were analyzed and convert into the percentage. The interpretation of students' reactions has been presented below:

4.2 Data Analysis and Interpretation of Reaction Scale

Prior to commencing the research through the intervention, the researcher had formulated a null hypothesis, i.e. "There will be no significant difference in the observed frequencies and frequencies expected against equality hypothesis on various statements of scale".

To test the hypothesis on each statement frequencies and χ^2 (chi-square) were calculated and then % analysis was done to get a more precise picture of responses.

Reactions of the students were analyzed in terms of frequencies, percentages and χ^2 they have been presented below, statement wise.

STATEMENT-1: Learning through Multimedia Programme was interesting.

TABLE 4.2.1 Analysis of responses of Students on statement-1

	ALWAYS	OFTEN	NEVER	χ^2 and level of Significance
f_o	31 (62%)	19 (38%)	—	29.32 (0.01)
f_e	16.67	16.67	16.67	

Interpretation

62% of Students said that Learning through Multimedia Programme was always interesting. While 38% of the Students said that Learning through Multimedia programme was interesting often. Hence, Researcher found that majority of the Students said that Learning Multimedia Programme was interesting.

The computed χ^2 Value 29.32 is greater than that of table χ^2 value 9.21 at 0.01 levels for 2 degree of freedom.

Therefore, the Null Hypothesis is rejected. That means there is significant difference between the observed frequencies and expected frequencies.

Statement- 2 Developed Multimedia Programme can also be used for self-learning.

TABLE 4.2.2 Analysis of responses of Students on statement-2

	ALWAYS	OFTEN	NEVER	χ^2 and level of Significance
f_o	24 (48%)	23 (46%)	3 (6%)	16.82 (0.01)
f_e	16.67	16.67	16.67	

Interpretation

48% of the students said that Developed Multimedia Programme can also be always used for self-learning. And 23% of the students said that Developed Multimedia Programme can also be often used for self-learning. While only 6% of the students said that Developed Multimedia Programme cannot be used for self-learning. Therefore, the researcher found that the Developed Multimedia Programme can be used for self-learning.

The computed χ^2 Value 16.82 is greater than that of table χ^2 value 9.21 at 0.01 levels for 2 degree of freedom.

Therefore, the Null Hypothesis is rejected. That means, there is significant difference between the observed frequencies and expected frequencies.

Statement – 3 Activity carried out during the programme have consolidated understanding.

TABLE 4.2.3 Analysis of responses of Students on statement-3

	ALWAYS	OFTEN	NEVER	χ^2 and level of Significance
f_o	27 (54%)	23 (46%)	-	25.47 (0.01)
f_e	16.67	16.67	16.67	

Interpretation

54% of the students said that activity carried out during the programme have developed their consolidated understanding. And 46% of the Students said that activity carried out during the programme have often consolidated their understanding.

Therefore, the researcher found that majority of the Students said that activity carried out during the programme have developed their consolidated understanding.

The computed χ^2 Value 25.47 is greater than that of table χ^2 value 9.21 at 0.01 levels for 2 degree of freedom.

Therefore, the Null Hypothesis is rejected. That means there is significant difference between the observed frequencies and expected frequencies

Statement –4: The language used in the programme was intelligible.

TABLE 4.2.4 Analysis of responses of Students on statement-4

	ALWAYS	OFTEN	NEVER	χ^2 and level of Significance
f_o	19 (38%)	27 (54%)	4 (8%)	16.36 (0.01)
f_e	16.67	16.67	16.67	

Interpretation

54 % of the Students said that the language used in the programme was often intelligible. And 38% of the Students said that the language used in the programme was always intelligible. While 8% of the Students said that the language used in the programme was not intelligible. Therefore, the researcher found that the language used in the programme was intelligible.

The computed χ^2 Value 16.36 is greater than that of table χ^2 value 9.21 at 0.01 levels for 2 degree of freedom.

Therefore, the Null Hypothesis is rejected. That means there is significant difference between the observed frequencies and expected frequencies.

Statement – 5 Audio used in the programme was meaningful and helped in understanding the concept.

TABLE 4.2.5 Analysis of responses of Students on statement-5

	ALWAYS	OFTEN	NEVER	χ^2 and level of Significance
f_o	38 (76%)	11 (22%)	1 (2%)	43.95 (0.01)
f_e	16.67	16.67	16.67	

Interpretation

76% of the Students said that the Sound used in the programme was always meaningful and helped in understanding the concept. And 22% of the Sound used in the programme was often meaningful and helped in understanding the concept. While 2% of the sound used in the programme was not meaningful and helped in understanding the concept. Therefore, the researcher has found that the Sound used in the programme was meaningful and helped in understanding the concept.

The computed χ^2 Value 43.95 is greater than that of table χ^2 value 9.21 at 0.01 levels for 2 degree of freedom.

Therefore, the Null Hypothesis is rejected. That means there is significant difference between the observed frequencies and expected frequencies

Statement – 6: The colour combination of the programme was suitable.

TABLE 4.2.6 Analysis of responses of Students on statement-6

	ALWAYS	OFTEN	NEVER	χ^2 and level of Significance
f_o	35 (70%)	14 (28%)	1 (2%)	35.32 (0.01)
f_e	16.67	16.67	16.67	

Interpretation

70% of the Students reported that the colour combination of the programme was always suitable. 14% of the Students reported that the colour combination of the programme was often suitable. While only 2 % of the Students reported that the colour combination of the programme was not suitable. The majority of the Students said that the colour combination of the programme was suitable. Therefore, the researcher has found that the colour combination of the programme was suitable.

The computed χ^2 Value 35.32 is greater than that of table χ^2 value 9.21 at 0.01 levels for 2 degree of freedom.

Therefore, the Null Hypothesis is rejected. That means there is significant difference between the observed frequencies and expected frequencies

Statement – 7 The explanation given by the Researcher facilitated understanding.

TABLE 4.2.7 Analysis of responses of Students on statement-7

	ALWAYS	OFTEN	NEVER	χ^2 and level of Significance
f_o	14 (28%)	34 (68%)	2 (4%)	31.36 (0.01)
f_e	16.67	16.67	16.67	

Interpretation

68% of the students reported that the explanation given by the Researcher was often facilitated understanding. 28% of the students reported that the explanation given by the Researcher was always facilitated understanding. While only 2% of the students reported that the explanation given by the Researcher was not facilitated understanding. So, Researcher has found that the explanation given by the Researcher facilitated understanding.

The computed χ^2 Value 31.36 is greater than that of table χ^2 value 9.21 at 0.01 levels for 2 degree of freedom.

Therefore, the Null Hypothesis is rejected. That means there is significant difference between the observed frequencies and expected frequencies

Statement – 8 Learning of English language became easy through Multimedia Programme

TABLE 4.2.8 Analysis of responses of Students on statement-8

	ALWAYS	OFTEN	NEVER	χ^2 and level of Significance
f_o	14 (28%)	31 (62%)	5 (10%)	20.92 (0.01)
f_e	16.67	16.67	16.67	

Interpretation

62 % of the students reported that the often learning of English language became easy through Multimedia Programme. 28% of the students reported that the always learning of English language became easy through Multimedia Programme. While only 10% of the students reported that the Learning of English language not became easy through Multimedia Programme. Therefore, researcher found that the majority of the Students said that the Learning of English language became easy through Multimedia Programme.

The computed χ^2 Value 20.92 is greater than that of table χ^2 value 9.21 at 0.01 levels for 2 degree of freedom.

Therefore, the Null Hypothesis is rejected. That means there is significant difference between the observed frequencies and expected frequencies.

Statement – 9 Content in Multimedia Programme was appropriate.

TABLE 4.2.9 Analysis of responses of Students on statement-9

	ALWAYS	OFTEN	NEVER	χ^2 and level of Significance
f_o	30 (60%)	18 (36%)	2 (4%)	23.68 (0.01)
f_e	16.67	16.67	16.67	

Interpretation

60 % of the Students said the Content used in Multimedia Programme was always appropriate. And 36% of the Students said the Content used in Multimedia Programme was often appropriate. While 4% of the Students said the Content used in Multimedia Programme was not appropriate. Therefore, the Researcher found that the majority of the Students said the Content used in Multimedia Programme was often appropriate.

The computed χ^2 Value 23.68 is greater than that of table χ^2 value 9.21 at 0.01 levels for 2 degree of freedom.

Therefore, the Null Hypothesis is rejected. That means there is significant difference between the observed frequencies and expected frequencies.

Statement – 10 Learning through Multimedia was joyful.

TABLE 4.2.10 Analysis of responses of Students on statement-10

	ALWAYS	OFTEN	NEVER	χ^2 and level of Significance
f_o	18 (36%)	29 (58%)	3 (6%)	20.44 (0.01)
f_e	16.67	16.67	16.67	

Interpretation

58% of the Students said that the Learning through Multimedia was often joyful. And 36% of the Students said that the Learning through Multimedia was always joyful. While only 6 % of the Students said that the Learning through Multimedia was not joyful. Therefore, the researcher found that the majority of the students said that the Learning through Multimedia was joyful.

The computed χ^2 Value 20.44 is greater than that of table χ^2 value 9.21 at 0.01 levels for 2 degree of freedom.

Therefore, the Null Hypothesis is rejected. That means there is significant difference between the observed frequencies and expected frequencies

Statement – 11 Multimedia Programme should be used in classroom teaching.

TABLE 4.2.11 Analysis of responses of Students on statement-11

	ALWAYS	OFTEN	NEVER	χ^2 and level of Significance
f_o	20 (40%)	30 (60%)	-	28 (0.01)
f_e	16.67	16.67	16.67	

Interpretation

60 % of the students said that the Multimedia Programme should be often used in classroom teaching. While 40% of the students said that the Multimedia Programme should be always used in classroom teaching. So, researcher found that the Multimedia Programme should be used in classroom teaching.

The computed χ^2 Value 28 is greater than that of table χ^2 value 9.21 at 0.01 levels for 2 degree of freedom.

Therefore, the Null Hypothesis is rejected. That means there is significant difference between the observed frequencies and expected frequencies

Statement – 12 There was a logical flow throughout the programme.

TABLE 4.2.12: Analysis of responses of Students on statement-12

	ALWAYS	OFTEN	NEVER	χ^2 and level of Significance
f_o	38 (76%)	11 (22%)	-	45.89 (0.01)
f_e	16.67	16.67	16.67	

Interpretation

76% of the students reported that the there was always logical flow throughout the programme. And 22% of the students reported that the there was often logical flow throughout the programme. So, Researcher found that the there was a logical flow throughout the programme.

The computed χ^2 Value 45.89 is greater than that of table χ^2 value 9.21 at 0.01 levels for 2 degree of freedom.

Therefore, the Null Hypothesis is rejected. That means there is significant difference between the observed frequencies and expected frequencies.

4.3 Conclusion

So, thus Experimental group students have shown higher achievement than the control group students. A large majority of the students were found to have favourable reactions towards the Multimedia Programme. So, from the analysis and the interpretation of the data it was clearly visible that the multimedia programme is effective in terms of achievement and reactions of Students.

Chapter- 5

Summary, Findings and Suggestions

5.0 Introduction

This Present chapter is the last chapter of this study. It brings out the significance of the study. In the previous chapter the researcher analyzed the data which researcher has collected from the experimental group to prove the validity of research hypothesis. In this chapter researcher focused on findings of the study. Based on the findings of the study, implications and suggestions are drawn by the researcher which is presented in this chapter.

The researcher conducted study on Effectiveness of the Multimedia Programme to Teach English at Std VIII. The statistical as well as descriptive analyses have conformed in the previous chapter the positive outcome of the experiment. This positive outcome encourages the researcher to make generalizations regarding Multimedia Programme used in the present study work. This chapter includes the major findings of the research and their educational implications and suggestions.

5.1 Statement of the Problem

Effectiveness of the Multimedia Programme to teach English

5.2 Rationale of the Study

Now days so many new experiments have been conducted in education. Among all this experiments multimedia has played its unique role to enhance the quality of education. The multimedia has not restricted up to technological subjects but language learning as well. The investigator found the importance of the prevalent of technology very effective mode to teach language in better way. For the selection of the research problem the investigator selects the specific problem for the research study. The reason of selecting the research problem is that, in present era the use of multimedia in each and every field is important and necessary. One cannot neglect the efficiency of multimedia in every field. In education multimedia is used in different way for teaching and learning in classroom. Learning with the help of multimedia provides

exposure, develops inner abilities and thinking skills and also helps to remove the fear, shyness in communicating in a group of people and develops language and confidence in speaking the language.

5.3 Objectives of the Study

- 1) To study the effectiveness of multimedia programme in terms of achievement of students.
- 2) To study the effectiveness of multimedia Programme in terms of reactions of students.

5.4 Hypotheses

H₀₁ There will be no significant difference in Mean achievement scores of Control Group and Experimental Group on Post-test.

H₀₂ There will be no significant difference between observed frequency and frequencies expected on various statements of reaction scale.

5.5 Tools

Tools enable researcher to interact with the subject and get their response. To the present study the researcher used post-test and reaction scale for collecting data.

5.6 Research Type

The present research is experimental in nature.

5.7 Research Design

The present research is experimental research. The Present study employed control group and experimental group – post –test design.

E X₁ O₁

C X₂ O₁

E - Experimental Group

C - Control Group

X₁ -Teaching through Multimedia

X₂ -Teaching through traditional method

O₁- Post Test

5.8 Findings

- The significant difference existed in mean achievement score of control group and experimental group students, in favour of experimental group students.
- All the students scored higher in Achievement test. It shows that they learnt better and understand well by the developed multimedia programme.

Table : 5.8.1. Analysis of Responses of students on the Reaction Scale

Sr.No	Statements	ALWAYS		OFTEN		NEVER	
		fo	%	fo	%	fo	%
1	Learning through Multimedia Programme was interesting	31	62%	19	38%	-	-
2	Developed Multimedia Programme can also be used for self-learning.	24	48%	23	46%	3	6%
3	Activity carried out during the programme have consolidated understanding	27	54%	23	46%	-	-
4	The language used in the programme was intelligible.	19	38%	27	54%	4	8%
5	Audio used in the programme was meaningful and helped in understanding the concept	38	76%	11	22%	1	2%
6	The colour combination of the programme was suitable.	35	70%	14	28%	1	2%
7	The explanation given by the Researcher facilitated understanding.	14	28%	34	68%	2	4%
8	Learning of English language became easy through Multimedia Programme	14	28%	31	62%	5	10%
9	Content in Multimedia Programme was appropriate.	30	60%	18	36%	2	4%
10	Learning through Multimedia was joyful.	18	36%	29	58%	3	6%
11	Multimedia Programme should be used in classroom teaching.	20	40%	30	60%	-	-
12	There was a logical flow throughout the programme.	38	76%	11	22%	-	-

- Students were found to have positive reactions towards the Multimedia programme.
- The Multimedia programme motivates the students for self- learning.

5.9 Suggestions

The developed Multimedia programme was found to be effective for teaching English in Gujarati medium school. Suggestions are listed below:

- Effectiveness of Multimedia programme for slow learners can be assessed.
- Teacher can also prepare programmes in other subjects like Science, Maths and Social Sciences.
- Multimedia programme can be developed for higher educational level so that they can be used for self – learning and correspondence courses.
- Multimedia programme can also have the teachers to teach their students by using multimedia rather than using simple conventional method.

5.10 Implications of the Study

- The Multimedia programme helped to improve spoken competence and enhance their confidence level. So it's better to use such type of learning programme in all Classrooms to teach the students more effective.
- This study is useful to develop the ICT and language skills among students and teachers
- This kind of Multimedia programmes should be prepared at large scale and should be implemented in study from the initial stage.
- The study proves that there is a need to provide some Multimedia programme for students so they can learn by their own.

5.11 Suggestions for the Further Studies

- The researcher has done her research on multimedia in teaching English but there can be other research studies in similar topics.
- Use of multimedia in teaching grammar topics.
- Research can be done on the prose and on the poems in English.
- Research can be done in different field like in Marketing, Business and in IT companies.
- Research can be taken up for Arts, Commerce and Science students by developing Multimedia programme.

5.12 Conclusion

In the conclusion, Researcher has made the following observations:

- The performance of the students of the experimental group who were exposed to the Multimedia programme was far better than the control group.
- Even the students of the experimental group show the better retention of the content than the control group.
- As the developed Multimedia package was interesting and interactive for the students, its content was easy, meaningful and appropriate.
- Researcher said that use of technology will be more effective method than traditional method.
- We should use more and more technique in teaching learning process.
- Students felt that learning through Multimedia programme was joyful and meaningful.

Thus, the researcher conclude that the Multimedia programme developed and implemented for teaching English at standard VIII was effective for the students.

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