USE OF MULTIMEDIA IN TEACHER EDUCATION: NEED OF THE FUTURE

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INTRODUCTION

In a global competitive environment, it is important that Indian products of the higher education institutions are as competent as graduates of other countries not only in their scholastic attainments, but also in terms of the value system and richness of their personality. Unless the quality and standard of Indian higher education institutions is enhanced and sustained at a high level through innovation, creativity and regular monitoring, it seems to be difficult for the Indian academics/professionals to compete in the world scene. It is equally applicable for teacher education. Even the scenario of teacher education in an global era is more deplorable in comparison to other professions. In some developing American and European countries, they do not recognize our teacher education degrees. For this there is an emerging need to change the process of teacher education programme in terms of its Input, process and output. In the present paper authors have emphasized how to bring quality in the process of teacher education programme using the available technology. Presently, traditional educational approaches have resulted in a mismatch between what is taught to the students and what the society needs. As such, many institutions are moving towards problem-based learning as a solution to producing graduates who are creative, can think critically and analytically, and are able to solve problems. It is focused to use multimedia technology as an innovative teaching and learning strategy in a problem-based learning environment by giving students a multimedia project to train them in their skill.

The progress of any country is dependent on its educational system and the education system will be able to discharge its set functions only when accomplished by right kind of teaching staff. It is the teachers that translate all educational theories into practice making the students learn. The teachers therefore have the most powerful influence in any system of education. It can be really understood, if one will see the observation of A.P.J. Abdul Kalam and Y. S. Rajan (1998). “If you are a teacher in whatever capacity you have a very special role to play because more than any body else you are shaping generations”. Teaching is the only field where we are handling the students who will become the citizens of next generation. Teachers are responsible to provide needed skills and positive attitude for the future citizens for which they are called as the nation builders. In this context it can be remembered the Education Commission (1964-66) as the commission started its report with the statement “the destiny of India is now being shaped in her classrooms. This, we believe is no mere rhetoric. In a world based on science and technology, it
is education that determines the level of prosperity, welfare and security of the people. On the quality and number of persons coming out of our schools and colleges will depend our success in the great enterprise of national reconstruction the principal objective of which is to raise the standard of living of our people”. Hence, the destiny of nation is shaped by teachers as teaching is a profession, which lays the foundation for preparing the individuals for all other professions. Therefore, the success of an educational system largely depends upon the quality of teachers available to it and again the quality of teachers depends upon the quality of teacher education programme that moulds them. Thus, it is the teacher education which prepares the teachers among those who want to join this profession through the process of discovering, analyzing, and synthesizing educative experiences. Venkataiah (2009) rightly observes that “The quality of its citizens depends not exclusively, but in critical measure upon the quality of their education. The quality of their education depends more than upon any single factor upon the quality of teachers”. So teacher is the backbone of the educational system, maker of mankind and architect of the society. Teachers are the torchbearers in creating social cohesion, national integration and a learning society. They are capable of generating and imparting knowledge as per the commands and demands of the society and such teachers are prepared or trained in the teacher training institutes. Future teachers need to tackle future students meaningfully and effectively which could be possible if the teacher is taking the help of technology available in the school. Using different available technology judiciously can be possible by using multimedia education in the teaching learning environment.

MULTIMEDIA EDUCATION

Multimedia is an interactive instructional method that uses a computer to present material, track learning and direct the user to additional material which means the students needs. It can also be used to describe Internet based instruction through the use of Web Pages, Web Bulletin Boards, Letters and Newsgroups, video and Real Audio, Graphics and Hands On Applications. Additionally self-teaching programmers on CD-ROM to the emerging DVD round out the group of available forms of multimedia package. Multimedia package provides varieties of audio and video presentation along with the content to make the learning interesting and self paced. Multimedia learning uses a combination of text, graphics, sound & video in the learning process. It is especially useful in distance learning situation. The explosion of the Internet as well as the demand for distance learning has generated great interest and expansion of knowledge.

PRINCIPLES OF MULTIMEDIA EDUCATION

Like the principles of programmed learning or Computer Aided Instruction, multimedia education follows certain psychological principles. In the broadest sense multimedia will refer to any use of computers that interacts with students in some or the other way in the educational process. Following are the principles on the bases of which multimedia education is designed.

Principle of Small and unique Steps

Multimedia is made up of a large number of small, easy to take and unique steps. A student can proceed from knowing very little about a topic to mastery of the subjects by going through a multimedia programme.
Principles of Active Responding

This principle rests on the assumption that a learner learns better by being active responding to different situations. Multimedia provides opportunity for learner to respond frequently. It not only presents material to the learner but also induces sustained activity.

Principle of immediate Confirmation

The psychological phenomenon of reinforcement is the basis of this principle. Necessity of providing immediate confirmation is important from two point of view viz. the learner will not wildly guess and when the learner is not sure of the responses he/she needs to be confirmed of the correctness of the response or provide with the right response.

Principle of Self Pacing

Multimedia is a technique of individualized learning based on another basic assumption that learning can take place better if an individual is allowed to learn at his own pace. The pupil is not forced to move with other members of the class. Some students naturally learn more rapidly or more slowly than others. In a normal class room some students may be left behind as they are not able to learn at their own pace. This principle controls individual differences in the process of learning.

Principle of Student Testing

Continuous evaluation of the learning process helps in maximizing learning is another assumption on which multimedia education is based. The students leaves behind a record of his responses because it is required to write a response for each frame in a response sheet. This detail record helps in revising and also provides a feedback to the teacher about the student’s progress.

All aspects being considered, multimedia does not necessarily replace teacher, text books, classrooms or laboratories. Multimedia education is another aspect of learning that harnesses the potential of computer and makes it a tireless participant in the educational process. Perhaps the greatest benefit of multimedia education is giving small boost to the marginal student and make them interesting, which leads to success.

ADVANTAGES OF MULTIMEDIA EDUCATION

In the age of technology the teacher has to develop a lot for the students requirement. Multimedia education is one such material which can help the teacher to cope up with the needs of the students. Besides that it also lessens the workload of the teacher and it can have many advantages, which are given as follow.

Provides Interactive Learning

Multimedia education helps the students to learn themselves and provide them the direct communication. They can get direct feedback at the same time of their learning. Another thing is that students actively learns without the help of the teacher. Even one can have the related clues for learning which make learning interesting and active.
Individulized Learning:

Learning through Multimedia education is totally an individualized instruction. Further it provides the students maximum flexibility. It provides them with different learning experiences according to their level of understanding and ample time for learning. It also provides the learner a choice to select the topic of one’s own interest at a specific point of time. The student can constantly know about one’s progress as one is provided with constant feedback during learning process. It does not allow the learner to proceed to new content without completing the previous one that makes learner to learn the particular topic and master it. Multimedia education also provides individual attention to each student, which is one of the basic requirements to improve the quality of teaching learning in overcrowded classrooms.

Provides Motivation

It helps in motivating learners through special effects and the games added in presenting different topics which makes the learning more enjoyable. With simulation and animation, It gives unique experiences to the students and helps teachers to provide different topics in more interesting and realistic manner. It arouses motivation in the learner by presenting content systematically, interestingly and giving feedback efficiently. Even the games that are used to present content determine them to complete with themselves and to learn more.

Provides Wide Range of Experiences.

Multimedia education helps the teacher to provide wide range of experiences. One can illustrate the concept through manipulation of graphics in different dimensions. Graphics, drawing becomes handy for the teacher. And the most encouraging thing about it is that whenever the teacher wishes one can modify that particular thing at one’s convenience. Those graphics also attracts the students attention more and on the desired point. Concepts with the help of proper data. Teacher can present diagrams and graphs which help them to understand the concepts clearly with longer effect.

Besides all these advantages it has the big advantage of using the computer is that it gives the learner more confidence and freedom to design their own learning programme in terms of time, space and content. Unlike other audio-visual devices where the learners have limited option to listen to the dialogues, music etc. and/or watch the same cartoons movies etc. Variety and diversity according to the taste of the learner is possible through Multimedia education which makes the students to get involved in the process of learning.

MAINSTREAMING MULTIMEDIA IN TEACHER EDUCATION

Mainstreaming of multimedia in teacher education is very essential considering the need of the students of school education and teacher education. Some points are discussed here which will help the future students be computer savvy which in tern can handle the school education in a better way using multimedia education.

Inclusion of ICT in Teacher Education
If the present rate of explosion of knowledge continues, in a few years the teachers will find themselves in a world where their present knowledge and teaching skills to an extent would become obsolete. They will have to face the challenge of electronic media and information technology. Each and every school students in the future may demand an IT and ICT known teacher who can help students in the process of teaching learning and self learning. Teacher education curriculum should emphasize on the skills related to IT and ITC and should know how to maximally utilize the available IT and ICT resources. This component is more essential in the urban areas where the availability of IT and ICT resources are quite more in the school. Hence ICT inclusion in teacher education is very demanding for future teacher education students.

Creating Proper Media Culture

We all are living in the age of media crowd. Different media are rushing to our homes and institutions, but we are not sure about the use of an appropriate media. We are accessed to a huge number of TV channels, but without a proper decision, there is a clash in the family about the selection of specific channels at a specific time. Similar thing is also happening in our education institutions. We are getting different media for the educational purpose, but it is either mis-utilized or under-utilized. The cause is that we do not have a proper media culture, to synchronize different media to get more and more utilities. It is the time to prepare teachers to create a proper media culture among students. A proper media culture can help each and every one from media confusion and will lead one to media fusion. It could be added as a stepping stone towards infusion of multimedia education in future teacher education.

Creating a Pragmatic Mindset and Learning Culture

We need the teachers with pragmatic mindset to meet the changing demand of tomorrow. Teachers need to believe in experimental method of inquiry and reflective thoughts, role of experience and problem solving. It will help the teachers to act as change agents of modernization and social change. It will help the system to prepare professionally competent teachers to perform their roles effectively as per needs of the society. A pragmatic mindset will help to upgrade the standard of teacher education, enhance the professional and social status of teachers and develop amongst them a sense of commitment. With a pragmatic mindset teacher educators’ role will be shifted from teacher to knowledge workers, consultants and councilors. Teacher educators should internalize their changing role and to make themselves ready for this change.

Fusion of East and West

Due to globalization and liberalization the pattern of change in the society is taking place in a different order. The concept of import and export is going out of the market. The fusion of east and west is a remarkable in the changes phenomenon. This fusion has a great impact on the society including the culture, and life style of the people. Students need education to be skilled
workers for the global market. There is need to develop an indigenous, comparable and area-specific curriculum with a blend of eastern cultural ethos, unity and diversity synchronizing with change and continuity and western outlook, professionalism and discipline. There is a need to look at the present system of teacher education programme and to add the use of advance technology to the betterment of students teachers at teacher education institutes and students at the school education.

CONCLUSION

“An educational system can only be as good as its teachers. Research shows that a good teacher in every classroom is the most effective way of improving student performance. Teacher training, both pre-service and in-service, must be reformed so that teachers have the competence and motivation to interact with students and to facilitate their development. It is felt that pre-service training focuses almost exclusively on knowledge acquisition, with little attention to pedagogy, instructional practices and classroom management skills is not preparing teacher for the 21st Century” (NCTE, 1997).

The curriculum for teacher preparation, in future has to encompass the broader canvas, which is consistently emerging before the teachers and shall continue to change at a much faster pace in times ahead. Teachers shall have to take a global view of the new trends, strategies and practices, and focus on indigenous heritage and thoughts, which could fit in the local and national situations. A comprehensive, dynamic and responsive system of teacher education needs to be continually evolved keeping the overall scenario in view. There is a need of incorporating maximum available technology to help both teachers and students in the teacher education system. It can also help student teachers to be better teachers of tomorrow school whose can also be able to use maximum technology may be in the form of multimedia education for the betterment his/her teaching and students’ learning.

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EFFECTIVENESS OF MULTIMEDIA PACKAGE TO TEACH ENGLISH GRAMMAR TO STANDARD VII CBSE STUDENTS

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INTRODUCTION

Language teaching is somewhat a difficult and complicated process. Educators in the field of language teaching forever have to struggle hard to find ways to make language learning enjoyable for the learners. Different activities, games, and fascinating stories helped language teachers to accomplish this aim through many years and they still do. However, at the beginning of the eighties technology came into use in the language classrooms with films, television and language laboratory having video tapes and audio cassettes. Also, some Computer Assisted Language Learning (CALL) software was introduced using operant conditioning, drill and practice and other principles of teaching and learning. As technology developed, new programs came into use to create a more interactive and appealing environment for language learners and teachers than what is accessible in the traditional language classrooms.

Presently many CALL programs are used in language class rooms for developing Listening, Speaking, Reading and Writing (LSRW) skills among learners effectively and efficiently. Although technology provides us with many opportunities for a improved life and education, its usefulness need to be tested in real life situations. Considering the nature of English language teaching and learning, many researchers, in search of the best way to acquire English as first or second language used CALL in English language class rooms to find out its short term and long term effects on language learning. In the present study the researchers had made an attempt in this direction to make English language teaching, mainly grammar teaching more effectively using the help of multimedia approach. Therefore, the aim of the present study is to find out the effects of Multimedia Package on learner’s achievement in English grammar.

REVIEW OF RELATED LITERATURE

The researcher had review a long list of literature related to English language learning and effectiveness of computer packages in teaching and learning. From the review of related literature it is clearly visible that several efforts have been done for the betterment of English language teaching and learning. In the study conducted by Joseph (1983) one can find that he used computers corresponding to the needs of the teachers in language teaching and language learning process. The investigator found several studies conducted by Hsu (1994), Das (1998), Zyoud (1999), Yadav (2004) and Singh (2007) which dealt with English language teaching using computer. The study conducted by Das (1998) dealt with rhymes. The study conducted by Zyoud (1999) focused on some aspect related to the present study in which the researcher has developed an English language teaching program for Gujarati medium students. The investigator found that study conducted by Yadav (2004) and Rathod (2005) are very much
related to the present study. The study by Yadav (2004) was dealt with standard VIII English medium students of CBSE Board and in many aspects her study was similar to the present study but the package she used was prepared using Microsoft PowerPoint and was lacking the components like, evaluation, drill, exercise and feedback aspects. All the studies reviewed except that of Iheanacho (1997) lacked focused on the long term impact of the CALL instruction on learning and higher aspects of learning were neglected in the studies. So the present study is an attempt to study the effect of CALL package based on the use of multimedia for effective learning of English language particularly English grammar.

**RATIONALE OF THE STUDY**

Teaching of language undergoes changes with demand and need of the time. Even language teaching and learning becomes a difficult job if the goal of developing language efficiency among the students is not achieved well. Teaching English language, covering the syllabus and fulfilling the taste of the students, may be difficult. The teacher should yield to change his/her way of teaching. Though old approach may be well known very through and effective, one has to give place to new methods to fulfill the need. Methods followed for decades cannot be easily abandoned but feeling the reality, change in teaching method is indispensable to develop English language ability of the students of India in general.

The language that is used by many people and which opens the window of the world information’s has great importance. English language holds that important place as it has been one of the most important languages of the world. It is called as the library language as a vast amount of world information and literature is available in English. It is considered as a link language in multilingual and multicultural country like, India with different local and state languages. It is also considered as the language of trade and commerce as a very large portion of world trade and commerce is done through this language. This language has a great importance for the students in Secondary and Higher Secondary as they study it as the first language (L1) or as a second language (L2) all over the country.

English is one of the mostly used web languages, students cannot use web (internet) effectively without the knowledge of English. The impact of the English at present is so much that the teaching learning of English language plays an important role in the society at large and school at particular from futuristic perspectives. Besides all these things, grammar of any language is very important, as without which language learning cannot be possible. And the English grammar provides a sound structure to the English language learning. Considering the importance of English language the researcher took the present study to contribute to enhance the teaching learning of English grammar.

Further in this technological driven era, which the whole cosmos is at one’s desktop with just a single mouse click affects and enters into every sphere of life. The advancement in technology has made it quite possible to take advantage of many modern facilities in different facets of communication. The language teaching learning process is not exception, since language in its strict technical sense is a means of communication. Audio visual devices, such as, tape-recorders and video tapes have frequently been used effectively in language classes. However, since both human nature and the language teaching-learning process are dynamic phenomena, the need for the newest techniques and technological devices is felt. As computer is a versatile device with
many advantages of storing huge amount of information and processing them as per one’s wish and need, it can be utilized as a complementary device to other audio visual aids in teaching language. During the computer based language activities, learners can observe several structural changes occurring to words, sounds, rules and meanings of the language they are learning. Multimedia package is one the forms of Educational Technology using the potential of computers and following the pedagogy of teaching and learning, which has great impact in field of education. With its unique features like, drill, simulation, animation, tutorial and gaming, it makes teaching and learning more interesting and encouraging for the students.

At present, day by day classroom is becoming overcrowded due to which there is change in teacher and pupil ratio. It has made the condition of classroom worse due to teacher’s difficulty to give proper attention to the students. This overcrowded classroom makes it difficult for the teacher to give individual attention to the students. It allows the teacher to give attention to individual students and teachers. It allows the teachers to give attention to individual students being a facilitator and the students can proceed according to their pace. It also satisfies the need of the students’ imagination as they can modify the presented content according to their imagination, which can provide them the different situation to use the language differently.

Besides these, VII standard is the initial stage of the students in the secondary education so, it is very important to pay attention in teaching of English subject and guiding them properly to prepare them for the board examination and for better understanding about the subject which makes a strong base for higher education. Teaching them through Multimedia package will help to be familiar with the teaching and learning with the help of computer which will expose them to technology. Teaching at this stage will provide them enough time for the preparation of board examination on which teachers as well as parents give more stress. Another reason for considering this study that English language teaching and computer are complimentary to each other as both hold importance place at present.

The researcher has selected the topic of English grammar, a English language needs special attention in grammar as it provides the base of English language to the students. Even grammar needs different situations for better explanation as many topics are considered to be complex for the students to understand. By introducing the students into different situations the base for grammar can be strengthen. In that Multimedia package can provide more drilling practice with different situations, which may not be possible for teacher at least at individual level.

From the reviewed literature, the researchers has found that there been a great concern regarding learning of English. As many researches have been conducted on this aspect, which can be seen from the studies conducted by Dewal (1973), Jain (1987), Kapadia (1988), Jayshree(1989), Sharma(1989) and Ngangbam(2000). All the six researchers have been related with the topics like, programme teaching, curriculum of English and the resources in schools, course design in English for communicative approach and difficulties in teaching or learning of English and the remediation. Researches by Sabharwal (1978), Joseph(1983), Dubey(1990), Hus(1994), Khirwadkar(1998) and Das (1998) were conducted to see the effectiveness of the different methods to teach different subjects. Those researches have been on Multimedia package, PLM, CALM, CALL, and play way method etc. These researches have been conducted on teaching of English, Listening Comprehension, Hindi, Chemistry, etc. It shows that multimedia package has been effective and it has been positive in the process of teaching and learning with reference to
the studies conducted by Khirwadkar(1998), Hsu(1994), Zyod(1999) ans Das(1998). Even the researcher has found that very few studies have been conducted to teach English language especially at the lower secondary level.

The researcher has found the few studies were based on the teaching of English. They were for the students of early stage of their education and most of the studies conducted with students of Gujarati medium where English is considered as a minor subject. Because of these reasons the researcher had taken up the present study in English medium schools of Gujarat, where English is considered to be the first language. Besides this the researcher also felt that sometimes the students of English medium do make common errors in grammar while communicating so as to provide them the experiences of different situations and structures the researcher had taken the study on English Medium students.

Besides this, the school teacher centered approach while teaching English and due to that the teaching learning becomes teacher dominated, boring and therefore the researcher made an effort to develop the package with which the students can learn the presented topic with their own pace and interest. The researcher also developed the package for standard VII students because they need to improve their fundamental and basic English at this stage to be prepared for the X standard board examination. Besides that the syllabus of English Secondary and Higher Secondary education Board (CBSE) has just been changed by the board and the new syllabus of English has been prescribed to be taught with the help of the communicative approach instead of translation method and structural approach that found to be quite difficult for both students and teachers. And purposefully attempt has been made in the present study Similarly the attempt is also made to see whether Multimedia package can be combined with class room discussion after the study of each unit by students as class room discussion is considered as one of the active components of students learning. Considering all these points, the researcher had made an attempt to develop and try out a multimedia package on standard VII students to teach English Grammar.

**STATEMENT OF THE PROBLEM**

Effectiveness of Multimedia Package to teach English Grammar to Standard VII CBSE Students

**OBJECTIVES OF THE STUDY**

The study was carried out with the following objectives.

1. To develop the multimedia package to teach English Grammar to Standard VII English Medium CBSE students.
2. To study the effectiveness of the developed multimedia package in terms of achievement of standard VII English medium CBSE students in English grammar.
3. To study the effectiveness of the developed multimedia package in terms of the reactions of standard VII English medium CBSE students.
HYPOTHESIS OF THE STUDY

Following null hypothesis was formulated to achieve the objectives of the present study which would be tested at 0.01 level of significance.

H₀: There will be no significant difference between the mean achievement scores in English grammar of the standard VII English medium CBSE students of control group those studied through traditional way and that of experiment groups those studied through multimedia package.

EXPLANATION OF TERMS

Multimedia Package: For the present study Multimedia Package was, developed by the researchers with the help of power point presentation, Flash 0.8. It was based on four English grammar topics Viz. Types of Sentences, Tenses, Preposition and Article.

OPERATIONAL DEFINITION OF TERMS

Achievement in English Grammar: The marks scored by the students in the test constructed by the researchers on the topics selected in English grammar were considered as the achievement of the students in English grammar for the present study.

Reactions of Students: The scale value of the preferred belief of the students regarding the component of the multimedia package on a five point-scale was considered as the reaction of the students towards the component of the multimedia package. The aggregate qualitative scale value was considered as the reaction towards the developed multimedia package.

POPULATION OF THE STUDY

All the students studying in Standard VII English Medium CBSE schools in Gujarat will constitute as the population for the present study.

SAMPLE

For the present study Om International School was selected purposively as the sample school. Students of section A and Section B of Standard VII of this school constituted as the sample for the present study. 25 students from each sections those were made equivalent on the basis of the pre-test achievement score in English grammar constituted as the sample for control and experimental group.

TOOLS FOR DATA COLLECTION

Following tools were constructed by the researcher for the purpose of data collection.
Achievement Test: An Achievement test was constructed in English Grammar and used for pre-testing, and post-testing purpose. This test was constructed of four topics of standard VII English Grammar viz. Types of Sentences, Tenses, Preposition, and Article. The test was of 50 marks. The constructed test was validated with the help of experts in the field of test construction and English language.

PROCEDURE OF DATA COLLECTION

The study was conducted in three phases like, pre-testing, experimentation and post testing. In the first phase, the researchers administered the achievement test in English grammar as the pre-test on the students of both experimental and control group. In the second phase, the researchers implemented the developed multimedia package on experimental group for 21 days, one hour daily after a gap of 9 days from pre-testing. The control group students were taught the same four topics by their English language teacher for 21 days one hour daily using traditional method. After 21 days of experimentation the researcher administered the achievement test as post-test on the students of both the experimental and control groups to study the effectiveness of the developed multimedia package. The reaction scale developed by the researcher was administered on the experimental groups to know the reaction of students about the developed multimedia package.

ANALYSIS AND INTERPRETATION OF DATA

The collected data were analyzed by employing quantitative data analysis techniques. Mean, Standard Deviation, Standard Error of Mean and Mann-Whitney U-test were used to analyze the quantitative data. The non-parametric Mann Whitney U-test was used to analyze the data as the sample was taken purposively The detailed analysis and interpretation of the data is given as follow.

ACHIEVEMENT OF EXPERIMENTAL AND CONTROL GROUP IN ENGLISH GRAMMAR

To achieve objective 2 of the present study data were analyzed and given in table 1 and table 2.

Table 1: Mean, Standard Deviation and Standard Error of Mean wise distribution of Achievement in English Grammar of Experimental and control group Students

<table>
<thead>
<tr>
<th>Achievement in English Grammar</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error of Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group</td>
<td>25</td>
<td>45.44</td>
<td>3.19</td>
<td>0.65</td>
</tr>
<tr>
<td>Control Group</td>
<td>25</td>
<td>40.80</td>
<td>4.11</td>
<td>0.84</td>
</tr>
</tbody>
</table>

From the table 1 it was found that the Mean achievement in English grammar of experimental and control group students were 45.44 and 40.80 respectively out of total score of 50. The Standard Deviations from the Means for the achievement in English grammar were found to be
3.19 and 4.11 respectively for experimental group and control group students with Standard Error of Means of 0.65 and 0.84 for achievement in English grammar for the experimental and control group respectively. Comparing the Means it was found that the Mean achievement in English grammar of experimental group students was higher than that of control group students. From the Standard Deviations and Standard Error of Means of both the groups it was also observed that the experimental group was more homogeneous in terms of their achievement in English grammar in comparison to their control group counterpart. The higher mean achievement score of experimental group in English grammar achievement and less standard deviation and standard error of mean of the experimental group in comparison to the control group, may be due to the implementation and effect of multimedia package. To find whether the difference in the mean was significant or by chance and to test the null hypothesis i.e. \( H_0 \), Mann-Whitney U-test was used. The summary of the Mann-Whitney U-test is given in table 2, which is followed by analysis.

### Table 2: Summary of Mann-Whitney U-test for English Grammar Achievement of Experimental and Control group students with the Number of sample, Sum of Ranks, U-value, z-value and Probability

<table>
<thead>
<tr>
<th>Students</th>
<th>N</th>
<th>Sum of Ranks</th>
<th>U-value</th>
<th>z-value</th>
<th>Probability (( p ))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group</td>
<td>25</td>
<td>848.5</td>
<td>530.5</td>
<td>4.23</td>
<td>0.00003</td>
</tr>
<tr>
<td>Control Group</td>
<td>25</td>
<td>419.5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From table 2 it was observed that the Sum of Ranks of experimental group and control group students in English grammar achievement score were 848.5 and 419.5 respectively with 25 students in each group. The U-value and z-value were found to be 530.5 and 4.23 respectively. Referring Table for normal probability (Table A of Siegel, 1956) under null hypothesis (\( H_0 \)) of \( z \), for \( z \leq 4.23 \), the two tailed probability was found to be 0.00003 which is lesser than our decided significance level (\( \alpha \)) i.e. 0.01. Hence the null hypothesis i.e. ‘There will be no significant difference between the post-test mean achievement scores of the students of control group those studies through traditional method and that of experiment groups those studied through Multimedia Package in English grammar,’ is rejected and it can be said that experimental group and control group students differ stochastically in terms of their achievement in English grammar. From table 1, it was also found that the mean achievement of experimental group in English grammar achievement is more than the mean achievement of control group in English grammar which is due to teaching English grammar using multimedia package. Hence it showed that the developed multimedia package in teaching English grammar is effective in enhancing achievement of students in comparison to traditional approach.

The effectiveness of the developed multimedia package was also measured with the help of the reaction of students of experimental group. Out of 21 statements in the reaction scale that describes different aspects of the developed multimedia package, students had highly favourable reaction for two statements, favorable reaction for 18 statements and undecided reaction...
towards one statement. The overall reaction of the students towards the multimedia package was also found to be favorable. Hence it can be concluded that students have favorable reaction towards the multimedia package through which they learned the English Grammar. So it can be observed that the multimedia package to teach English grammar was found to be effective in terms of the reaction of students towards the package.

**MAJOR FINDINGS**

Following Major findings were drawn for the present study on the basis of analysis and interpretation of the data.

1. The developed multimedia package was found to be stochastically (significantly) effective in terms of enhancing students’ achievement in English Grammar in comparison to the traditional approach.
2. The developed multimedia package to teach English grammar was also found to be effective in terms of the reaction of students towards the package.

**IMPLICATION OF THE PRESENT STUDY**

The findings of the present study have implication for using Multimedia Package in teaching English Grammar in schools . The findings show that where and when the developed Multimedia Package was implemented it created an atmosphere where the students learnt and achieved more.

An English teacher can use such Multimedia Package during instructional process in the classroom and make teaching learning process more effective and interesting. With the help of the computer a teacher can also develop such kind of Multimedia Package and can use in the classroom while developing such Multimedia Package he/she can produce a number of drill exercise , meaningful exercise and can teach English Grammar by showing different functions and structures with the help of graphics, pictures and animated effect.

The findings of the present study also have implications for the schools to start and utilize their computer laboratory and multi media projector for teaching English instead of just using the computers for teaching computer subject only.

**CONCLUSION**

Ideal Multimedia Package software remains not an alternative but a complementary tool in reinforcing classroom activities. A part from relying on the ability of educators to create suitable Multimedia Package courseware, the effectiveness of Multimedia Package depends on the teachers readiness to adopt new attitudes and approaches toward language teaching. The teacher should avoid being skeptical about the use of computer in language teaching and begin to re-evaluate his or her methods in the light of computer’s tremendous teaching potential and boldly address to the challenges offered. The computer can best assist teachers if it is seen not as a replacement for their work but as a supplement to it. By the way, the computer, will not replace the language teachers, but used creatively, it will relieve them of tedious tasks and will enable students to receive individualized attention from both teachers and machines to a degree that has hitherto been impossible.
REFERENCES


EFFECT OF MULTIMEDIA PACKAGE ON DELAYED ACHIEVEMENT OF STANDARD VII CBSE STUDENTS IN ENGLISH

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ABSTRACT OF THE PAPER

English is considered as a most essential language in the globe considering it’s importance in almost all the areas. It is considered as the library language worldwide. Most of the technical literature is available in English language. It is also the language spoken by largest population of the world. It is considered as the link language in India considering our diversity of languages. Hence, it is taught as one of the language in Indian schools, first language or second language or as third language. But it is considered as a very difficult subject in all the schools. Educators in the field of English language teaching forever have to struggle hard to find ways to make English learning enjoyable for the learners which can also help to retain the learning for more duration.

In the present study the researchers had made an attempt to make English language teaching, mainly grammar teaching more effective using the help of multimedia approach and to have a long term effect of students in English learning. The researchers developed a multimedia package to teach English grammar and taught students of standard VII using this package for 21 days. The data were collected through pre-test, post-test and delayed post-test from both the experimental and control groups. The collected data were analyzed using Mean, Standard Deviation, Standard Error of Mean and Mann-Whitney U-test. In The findings the developed multimedia package was found to be stochastically effective in terms of enhancing students’ post-test achievement in English in comparison to the traditional approach and the multimedia package was also found to be stochastically effective in terms of enhancing students’ delayed post-test achievement in English in comparison to the traditional approach. The findings showed that the developed Multimedia Package created an interesting atmosphere where the students learnt and achieved more for both short term and long term benefits.
EFFECT OF MULTIMEDIA PACKAGE ON DELAYED ACHIEVEMENT OF STANDARD VII CBSE STUDENTS IN ENGLISH

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INTRODUCTION

English is considered as one of the most essential language worldwide considering it’s importance in almost all the areas. It is considered as the library language globally. Most of the technical literature is available in English language. It is one of the language mostly used in internal as well as external trade and commerce. It is also the language spoken by largest population of the world. It is considered as the link language in India considering the diversity of language in Indian Union. Considering the importance of English language in India, it is being taught in all levels of education in India from elementary education to higher and technical education. At the school education, none can escape learning English as three language formula is implemented in all the states of the union. It is taught as one of the language in Indian schools, first language or second language or as third language according to the mother tongue of the state. It is also considered as one of the difficult language to learn by the Indian students due to a number of factors. One of the factor is related to the teaching learning of English language in schools. Mostly, it is taught in the schools with the help of such methods and approaches that the negative influence of mother tongue (other than English) is felt in the acquisition of basic skills in learning English i.e. listening, speaking, reading and writing (LSRW) of English. It is felt and suggested that apart from choosing the right approach and method for teaching English, there is a need to take the help of contemporary available technology which can help both the teachers and students to deal the teaching learning of English in a better way. Educators in the field of English language teaching forever have to struggle hard to find ways to make English learning enjoyable for the learners which can also help to retain the learning for more duration. Different activities, games, and fascinating stories helped language teachers to accomplish this aim through many years and they still continue it. In the beginning of eighties, technology came into use in the English language classrooms with films, television and language laboratory having video tapes and audio cassettes. Later computers are used to help the teachers and students in this process. With the development of third generation computer languages, Computer Assisted Language Learning (CALL) software was introduced using operant conditioning, drill and practice and other principles of teaching and learning. As technology developed, new programs came into use to create a more interactive and appealing environment for English language learners and teachers. Now, the concern of the experts is to develop more and more user friendly CALLs to make the learning more interesting and long lasting giving more emphasis to the retention factors of language learning.
Presently many CALL programs are used in language class rooms for developing Listening, Speaking, Reading and Writing (LSRW) skills among learners effectively and efficiently. Although technology provides us with many opportunities for improved life and education, its usefulness need to be tested in real life situations. Considering the nature of English language teaching and learning, many researchers, in search of the best way to acquire English as first or second or third language used CALL in English language class rooms to find out its short term and long term effects on language learning. In the present study the researchers had made an attempt in this direction to make English language teaching, mainly grammar teaching more effective using the help of multimedia approach and to have a long term effect of students in English learning. Hence the present study i.e. to study the effect of Multimedia Package on delayed achievement of standard VII CBSE Students in English.

REVIEW OF RELATED LITERATURE

Literature survey in the area of English language learning helped the researchers to know the work done in this area and to find out the gap which would be worth studying by the researchers. The researchers had reviewed a long list of literature related to English language learning and effectiveness of CALL packages in teaching and learning. From the review of related literature it was found that several efforts have been done for the betterment of English language teaching and learning. In the study conducted by Joseph (1983) one can find that he used computers corresponding to the needs of the teachers in language teaching and learning process. The investigator found several studies conducted by Hsu (1994), Das (1998), Zyoud (1999), Yadav (2004), Singh (2007) and Patel (2010) which dealt with English language teaching using CALL. The study conducted by Das (1998) dealt with English rhymes in different modes. The study conducted by Zyoud (1999) focused on some aspect related to the present study in which the researcher has developed an English language teaching program for Gujarati medium students to teach English grammar. The investigator found that study conducted by Yadav (2004) and Rathod (2005) are very much related to the present study. The study by Yadav (2004) was dealt with standard VIII English medium students of CBSE Board and in many aspects her study was similar to the present study but the package she used was prepared using Microsoft PowerPoint and was lacking the components like, evaluation, drill, exercise and feedback aspects. The study conducted by Patel (2010) was related to use of multimedia package to see the effectiveness in different modes. All the studies reviewed except that of Iheanacho (1997) lacked focused on the long term impact of the CALL instruction on learning and higher aspects of learning were neglected in the studies. So the present study is an attempt to study the effect of CALL package based on the use of multimedia for effective learning of English language particularly English grammar for both sort term and long term achievement of students.

RATIONALE OF THE STUDY

English language is used by largest people in the globe and it opens the window of the world information. English language holds that important place as it has been one of the most important languages of the world. It is called as the library language as a vast amount of world information and literature is available in English. It is one of the mostly used web languages, students cannot use web (internet) effectively without the knowledge of English. It is considered as a link language in multilingual and multicultural country like, India with different local and state languages. It is also considered as the language of trade and commerce as a very large portion of world trade and commerce is done through this language. The impact of the English at present is
so much that the teaching learning of English language plays an important role in the society at large and school at particular. This language has a great importance for school education as students study it as the first language (L1) or as a second language (L2) or as a third language (L3) all over the country. English grammar provides a sound structure to the English language and it is considered as one of the very important aspect of English language without which English language learning cannot be possible. Hence, considering the importance of English language the researchers took the present study to contribute to enhance the teaching learning of English grammar.

Further in this technological driven era, The advancement in technology has made it quite possible to take advantage of many modern facilities in the language teaching learning process. Since both human nature and the language teaching-learning process are dynamic phenomena, the need for the newest techniques and technological devices is felt in language teaching. Multimedia package is one the forms of Educational Technology using the potential of computers and following the pedagogy of teaching and learning, which has great impact in the field of education. With its unique features like, drill, simulation, animation, tutorial and gaming, it makes teaching and learning more interesting and encouraging for the students. It can help to retain the learned concepts for a longer time hence can be more useful in the life. Hence, attempt is made in the present study to use multimedia for long term effect in the teaching learning of English as Multimedia package can be more advantageous to both students and teachers. It allows the teacher to give attention to individual students. It also satisfies the need of the students’ imagination as they can modify the presented content according to their imagination, which can provide them the different situation to use the language differently.

As standard VII is the preparatory stage for secondary education, it is very important to pay attention in teaching of English subject and guiding the students for better understanding about the subject. Teaching them through Multimedia package will help them to be familiar with the teaching and learning with the help of computer which will expose them to technology in the further years. Hence, standard VII was considered for the present study.

From the reviewed literature, the researchers have found that there been a great concern regarding learning of English. Many researches have been conducted on this aspect, which can be seen from the studies conducted by Dewal (973), Jain (1987), Kapadia (1988), Jayshree (1989), Sharma (1989), Ngangbam (2000). All these researches have been related with the topics like, programme teaching, curriculum of English and the resources in schools, course design in English for communicative approach and difficulties in teaching or learning of English and the remediation. Researches by Sabharwal(1978), Joseph (1983), Dubey (1990), Hus (1994), Khiwadkar (1998), Das (1998) and Patel (2010) were conducted to see the effectiveness of the different methods to teach different subjects. Those researches have been on Multimedia package, PLM, CALM, CALL, and play way method etc. It shows that multimedia package has been effective in teaching-learning. As the researchers found very few studies conducted in English language teaching at the lower secondary level, they decided to conduct the present study. Similarly the attempt is also made to see whether learning through Multimedia package could have a long term impact on students. Considering all these points, the researcher had made an attempt to develop and try out a multimedia package on standard VII students to teach English Grammar and to see its effect on delayed achievement of students.
STATEMENT OF THE PROBLEM

Effect of Multimedia Package on Delayed Achievement of Standard VII CBSE Students in English.

OBJECTIVES OF THE STUDY

The study was carried out with the following objectives.

1. To develop the multimedia package to teach English to Standard VII English Medium CBSE students.

2. To study the effectiveness of the developed multimedia package in terms of achievement of standard VII CBSE students in English.

3. To study the effectiveness of the developed multimedia package in terms of delayed achievement of standard VII CBSE students in English

HYPOTHESIS OF THE STUDY

Following null hypothesis were formulated to achieve the objectives of the present study which would be tested at 0.01 level of significance.

H01: There will be no significant difference between the mean English achievement scores of the standard VII CBSE students of experiment groups those studied through multimedia package and those of control group those studied through traditional method.

H02: There will be no significant difference between the delayed mean English achievement scores of the standard VII CBSE students of experiment groups those studied through multimedia package and those of control group those studied through traditional method.

DELIMITATIONS OF THE STUDY

Followings were the delimitations of the present study.

1. Achievement in English is delimited to English Grammar only consisting of four English grammar topics Viz. Types of Sentences, Tenses, Preposition and Article.

2. Standard VII CBSE students are delimited to standard VII CBSE English medium students only.

EXPLANATION OF TERMS

Multimedia Package: For the present study Multimedia Package was, developed by the researchers with the help of power point presentation, Flash 0.8. It was based on four English grammar topics Viz. Types of Sentences, Tenses, Preposition and Article.
OPERATIONAL DEFINITION OF TERMS

**Achievement in English:** The marks scored by the students in the test constructed by the researchers on the topics selected in English grammar were considered as the achievement of the students in English grammar for the present study.

**Delayed Achievement in English:** The marks scored by the students in the achievement test in English administered after three months (delayed) of the post testing were considered as the delayed achievement of the students in English for the present study.

POPULATION OF THE STUDY

All the students studying in Standard VII English Medium CBSE schools in Gujarat will constitute as the population for the present study.

SAMPLE

For the present study Om International School was selected purposively as the sample school. Students of section A and Section B of Standard VII of this school constituted as the sample for the present study. 25 students from each sections those were made equivalent on the basis of the pre-test achievement score in English grammar constituted as the sample for control and experimental group.

TOOLS FOR DATA COLLECTION

Following tool was constructed by the researcher for the purpose of data collection.

**Achievement Test** : The Researchers constructed an achievement test in English grammar for the pre-testing, post-testing and delayed post-testing purposes. The English grammar topics viz. Types of Sentences, Tenses, Preposition, and Article of standard VII CBSE English Medium curriculum were selected for teaching with the help of multimedia package. Hence the achievement test in English grammar was prepared with these selected topics. A blue print was prepared for the construction of the achievement test in English grammar considering the type and level of questions. The blue print was of 50 marks with all objective type questions equally from all these four topics having knowledge, understanding and application levels. Following the prepared blue print, the achievement test in English grammar was constructed by the researchers. The prepared achievement test in English grammar was shown to ten subject experts in English language teaching for the purpose of validation. The suggestions of the experts were duly incorporated in the English grammar achievement test. After determining the content validity of the English grammar achievement test, the test was administered to 120 standard VII English medium CBSE students and the reliability of the achievement test was determined using split-half method. The reliability coefficient using split-half method was found to be r= 0.92. Following this procedure the English grammar achievement test was standardized.
DEVELOPMENT OF MULTIMEDIA PACKAGE

The researchers developed the Multimedia package to teach English grammar, after analyzing standard VI English text book of English medium school following the prescribed syllabus of CBSE. The Flash was prepared taking four topics like, Types of Sentences, Tenses, Preposition and Article from the English Syllabus of standard VII of CBSE English medium. Presentation was also included giving explanation of each topic with enough examples so that the students will be clear about the concept of each topic. Graphics in the forms of animation and simulation were also added with the presentation. Branching style of programmed learning was followed while preparing the multimedia package. Provision of testing was there after each topics added with reinforcement and fun. The concept of play way method was also added in the prepared multimedia package. The developed Multimedia Package had scope for the teacher to be the facilitator and guide wherever one wants to get involved in the process of teaching. It included the examples related to each topic with theoretical and structural aspects during the explanation. The pictures used in the developed package were related to the life like situations that children come across in their life or they have the direct or indirect experiences of thereby. The developed package was shown to the experts in the field of education technology as well as the English language teaching. The suggestions from these subject experts were duly incorporated time to time by the researchers which resulted into present form of Multimedia package. The pilot study of the package was done with the standard VII CBSE English medium students of another school and on the basis of the reaction of the students, necessary modifications were done for the package.

PROCEDURE OF DATA COLLECTION

Data collection was done in three phases like, pre-testing, post testing, and delayed post-testing. In the first phase, the researchers administered the achievement test in English as the pre-test on the students of both experimental and control group. As one of the researchers was working as an English teacher in the sample school, taking permission from the school authority for the experimentation, she arranged 21 classes of 1 hour duration for the experimental group in the time table for teaching English grammar. A similar arrangement was done for the control group in the time table i.e. 21 classes of 1 hour duration for teaching English grammar. The researcher implemented the multimedia package for teaching English grammar for 21 days @ 1 hour per day on the experiment groups. The researcher acted as a facilitator and guide and cleared the doubts of the students. The researcher took the help of communicative approach during the process of the implementation of the multimedia package. During the same time the control group was taught the same topics by their respected English Teacher using their traditional method for the same 21 days @ 1 hour per day. In the second phase of data collection, the researcher administered the achievement test as post-test on the students of both the experimental and control groups to study the effectiveness of the developed multimedia package after 21 days of experimentation. In the third phase of data collection, the researcher administered the achievement test as delayed post-test on the students of both the experimental and control groups to study the delayed effectiveness of the developed multimedia package after 90 days of the post testing.
ANALYSIS AND INTERPRETATION OF DATA

The collected data were analyzed by employing quantitative data analysis techniques. Mean, Standard Deviation, Standard Error of Mean and Mann-Whitney U-test were used to analyze the data. The non-parametric Mann Whitney U-test was used to analyze the data as the sample was taken purposively. The detailed analysis and interpretation of the data is given as follows.

ACHIEVEMENT OF EXPERIMENTAL AND CONTROL GROUPS IN ENGLISH

To achieve objective 2 and 3 of the present study data were analyzed and given in table 1 and table 2.

Table 1: Mean, Standard Deviation and Standard Error of Mean wise distribution of Post-test and Delayed Post-test Achievement in English of Experimental and control group Students

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Post-test Mean</th>
<th>Delayed Post-test Mean</th>
<th>SD of Post-test</th>
<th>SD of Delayed Post Test</th>
<th>SE of Post-test Mean</th>
<th>SE of Delayed Post test Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expt. Group</td>
<td>25</td>
<td>45.44</td>
<td>46.12</td>
<td>3.19</td>
<td>3.64</td>
<td>0.65</td>
<td>0.73</td>
</tr>
<tr>
<td>Control Group</td>
<td>25</td>
<td>40.80</td>
<td>38.20</td>
<td>4.11</td>
<td>5.32</td>
<td>0.84</td>
<td>1.09</td>
</tr>
</tbody>
</table>

From the table 1 it was found that the mean achievement in English of experimental and control group students in post-test were 45.44 and 40.80 respectively out of total score of 50. The Standard Deviations from the post-test means for the achievement in English were found to be 3.19 and 4.11 respectively for experimental group and control group students with Standard Error of means of 0.65 and 0.84 for post-test achievement in English for the experimental and control group respectively. Comparing the post-test means it was found that the mean achievement in English of experimental group students was higher than that of control group students. From the Standard Deviations and Standard Error of means of both the groups in post-test, it was also observed that the experimental group was more homogeneous in terms of their achievement in English in comparison to their control group counterpart. The higher mean achievement in post-test score of experimental group in English and less standard deviation and standard error of mean of the experimental group in comparison to the control group, may be due to the implementation and effect of multimedia package. To find whether the difference in the mean of the post-test means of experimental and control group was significant or by chance and to test the null hypothesis, Mann-Whitney U-test was used. The summary of the Mann-Whitney U-test is given in table 2, which is followed by analysis.

From the same table, it was also found that the mean achievement in English of experimental and control group students in delayed post-test were 46.12 and 38.20 respectively. The Standard Deviations from the delayed post-test means for the achievement in English were found to be 3.64 and 5.32 respectively for experimental group and control group students with Standard Error of means of 0.73 and 1.09 for delayed post-test achievement in English for the experimental and control group respectively. Comparing the post-test mean and delayed post-test
mean of the experimental group it was found that the mean delayed achievement in English of experimental group students was higher than that of the post-test achievement in English, that may be due to the practice effect of grammar and more learning during this three months. From the Standard Deviations and Standard Error of means of the group in post –test and delayed post test, it was also observed that there is slight increase in standard deviation and standard error of the mean in the delayed post test of the experimental group. Similarly, comparing the post-test mean and delayed post test mean of the control group, it was found that the mean delayed achievement in English of control group students was lower than that of the post-test achievement in English. From the Standard Deviations and Standard Error of means of the control group in post –test and delayed post test, it was also observed that the there is increase in standard deviation and standard error of the mean in the delayed post test of the control group. From this analysis it can be said that teaching English through multimedia package has more positive effect in the long term retention in terms of achievement in English in comparison to traditional method.

Comparing the delayed post test means, it was found that the delayed mean achievement in English of experimental group students was higher than that of control group students. From the Standard Deviations and Standard Error of means of both the groups in post –test, it was also observed that the experimental group was more homogeneous in terms of their delayed achievement in English in comparison to their control group counterpart. The higher mean achievement in delayed post-test score of experimental group in English and less standard deviation and standard error of mean of the experimental group in comparison to the control group, may be due to the implementation and effect of multimedia package. To find whether the difference in the means of the delayed post test means of experimental and control group was significant or by chance and to test the null hypothesis 2 of the present study, Mann-Whitney U-test was used. The summary of the Mann-Whitney U-test is given in table 2, which is followed by analysis.

Table 2: Summary of Mann-Whitney U-test for English Achievement and the delayed English Achievement of Experimental and Control group students with the Number of sample, Sum of Ranks, U-value, z-value and Probability

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Sum of Ranks for Post-test</th>
<th>Sum of Ranks for Delayed Post-test</th>
<th>U-value for Post-test</th>
<th>U-value for Delayed Post-test</th>
<th>z-value for Post-test</th>
<th>z-value for Delayed Post-test</th>
<th>Probability (p) for Post-test</th>
<th>Probability (p) for Delayed Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expt. Group</td>
<td>25</td>
<td>848.5</td>
<td>910.0</td>
<td>530.5</td>
<td>40</td>
<td>4.23</td>
<td>5.53</td>
<td>0.00003</td>
<td>0.00003</td>
</tr>
<tr>
<td>Control Group</td>
<td>25</td>
<td>419.5</td>
<td>358.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From table 2 it was observed that the Sum of Ranks of experimental group and control group students in English grammar achievement score were 848.5 and 419.5 respectively with 25
students in each group. The U-value and z-value were found to be 530.5 and 4.23 respectively. Referring Table for normal probability (Table A of Siegel, 1956) under null hypothesis ($H_0$) of z, for $z \leq 4.23$, the two tailed probability was found to be 0.00003 which is lesser than our decided significance level ($\alpha$) i.e. 0.01. Hence the null hypothesis $H_01$ i.e. ‘There will be no significant difference between the mean English achievement scores of the standard VII CBSE students of experiment groups those studied through multimedia package and those of control group those studied through traditional method’ is rejected and it can be said that experimental group and control group students differ stochastically in terms of their achievement in English.

From table 1, it was also found that the post-test mean achievement of experimental group in English is more than the post-test mean achievement of control group in English which is due to teaching English using multimedia package. Hence it showed that the developed multimedia package in teaching English is effective in enhancing achievement of students in comparison to traditional approach.

From the same table, it was also observed that the Sum of Ranks of experimental group and control group students in delayed English achievement score were 910 and 358 respectively. The U-value and z-value for delayed post-test were found to be 40 and 5.53 respectively. Referring same Table for normal probability under null hypothesis ($H_0$) of z, for $z \leq 5.53$, the two tailed probability was found to be 0.00003 which is lesser than our decided significance level ($\alpha$) i.e. 0.01. Hence the null hypothesis $H_02$ i.e. ‘There will be no significant difference between the delayed mean English achievement scores of the standard VII CBSE students of experiment groups those studied through multimedia package and those of control group those studied through traditional method’ is rejected and it can be said that experimental group and control group students differ stochastically in terms of their delayed achievement in English.

From table 1, it was also found that the delayed post-test mean achievement of experimental group in English is more than the delayed post-test mean achievement of control group in English which is due to teaching English using multimedia package. Hence it showed that the developed multimedia package in teaching English is effective in delayed achievement and effective in retaining and enhancing achievement of students in comparison to traditional approach.

**MAJOR FINDINGS**

Following Major findings were drawn for the present study on the basis of analysis and interpretation of the data.

1. The developed multimedia package was found to be stochastically (significantly) effective in terms of enhancing students’ post-test achievement in English in comparison to the traditional approach.
2. The developed multimedia package was found to be stochastically (significantly) effective in terms of enhancing students’ delayed post-test achievement in English in comparison to the traditional approach.
CONCLUSION

The findings of the present study have implication for using Multimedia Package in teaching English Grammar in schools for better achievement and long term retention of the English knowledge. The findings showed that the developed Multimedia Package created an interesting atmosphere where the students learnt and achieved more for both short term and long term benefits. An English teacher can use such Multimedia Packages during instructional process in the classroom and make teaching learning process more effective and interesting. With the help of the computer a teacher can also develop such kind of Multimedia Package and can use in the classroom while developing such Multimedia Package he/she can produce a number of drill exercise and can teach English Grammar by showing different functions and structures with the help of graphics, pictures and animated effect. The findings of the present study also have implications for the schools to start and utilize their computer laboratory and multi media projector for teaching English and other subjects instead of just using the computers for teaching computer subject only.

REFERENCES


