Research Article

The impact of using Webquest method on Student's academic achievement in different Schools of District Ramban in Jammu and Kashmir

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Abstract

It is concluded that both the method taken for study are quite effective for teaching the Computer The main purpose of this study is to find the impact of Webquest method with the use of multimedia on students academic achievements in different Schools (Govt./Private) Rural/Urban areas of District Ramban in Jammu and Kashmir State.

This Research paper stresses about the role of webquest method (use of multimedia) and Traditional method of teaching Computer Science concepts in relation to student's achievement and retention. The interactive interface with the student is possible through computer, laptop and palmtop than any other media. The present experimental study compared the effectiveness of interactive multimedia and conventional direct method of teaching Computer in relation to students' achievement and retention.30 students of class 10th of aged 14-16 years was selected from one school for the study and two grouped were formed of 15 students each in controlled group and experimental group. Experimental group was taught through the webquest methods and control group was through the Traditional/conventional direct method for teaching Computer.

Science concepts to class 10th students but however, out of these two methods, Webquest/ multimedia method was found more suitable with respect to the marks achieved by them in Computer science. When students were taught through, both direct conventional method & Webquest method than it was found that the acquired retention was better in case of Webquest method. The current study is helpful to answer the below mentioned queries.

a. What is the impact of using Webquest on student's academic achievements in class 10th in Computer Science concepts?
b. Are there is any statistically significant difference between the average marks of experimental group and control group in the Pre-Test and Post-Test achievements in different Schools of District Ramban including Govt and Private Schools.
c. How much the students of 10th classgain in learning as a result of the difference in pre-test mean score and post-test mean scores in computer science concepts as a result of teaching computer concepts using web quest method and using Traditional methods.

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d. How much gain in learning in computer science concepts is retained after teaching using traditional methods at an interval of 10 days or after subsequent intervals of 10 days?
e. How much gain in learning in computer science concepts is retained after teaching using web quest method at an interval of 10 days or after subsequent intervals of 10 days?
f. How much is the difference in the mean gain score of retention of learning as a result of using web quest method and traditional methods?

Keywords: Interactive multimedia, Webquest method, Traditional method, Student's achievement, Retention of learning

Introduction

Education is mainly concerned with the ways and means of teaching and learning. Even of these two, the latter appears to be more vital as it is not only concerned with what the teacher does but also with what knowledge he transmits to the students and what the student does to assimilate the knowledge. For a very long time, it was understood that more information transfer was teaching. Traditional education was operated on the assumption that the time consuming steps of learning could be bypassed; that the final knowledge could by transmitted to the learner through a sort of intellectual feeling process. Thus, schools were considered knowledge shops and the process of education was only unidirectional. Subjects were taught according to the will of teacher and little attention was paid to the eagerness, curiosity and capability of the pupils.

The Goal of our government to provide equal opportunity and will remain as day dream unless problems associated with regular classroom are not overcome. It is very difficult task for teacher to take care of each and every student in a heterogeneous classroom comprised of many individual differences among the students. It is impossible for teacher to teach every individual according to their pace of learning and level of understanding in as limited time period. In a traditional classroom it is not possible for a teacher –

- To provide teaching material according to the need of each student.
- To teach every student according to his/her own pace of learning.
- To provide teaching material for as much time as the student review.
- To access the leaning of all individuals and keeping records of them.
- To guide the students keeping in view their individual differences.

Web Quest Strategy which is one of Piaget's most important educational applications that is based on his assumptions in the mental growth. This assumption states that educational applications affect greatly the methods of teaching. This means that the learner constructs his knowledge by himself and he can reconstruct it through the process of the social negotiation with others. And one of the assumption bases is that ideas are not given to the students but they have to build their own concepts and knowledge created through their thinking and self activity (Zeitoon, 2007).

The web quest idea can be summarized in building oriented activities and performances that investigate an issue or a specific topic, which are in great portion specialized and pre-selected sites over the internet. It has been classified in to two types (Gokalp, 2011).

1. Short-term web quest that its time extends from one class to three classes, often its objective is to provide the students with the knowledge and understanding.
2. Long-term web quest, which its time period ranges from one week to full month, it is about questions that require higher thinking skills (Such as analyzing composing and evaluating).

To an end an experiment of two equivalent group were designed, one is experimental group and the other is control group each of them consist of Males & Females students of 10^{th} standard from the sample of thirty students 15 in each. The Lecture was given to the first group using a Computer presentation programme which uses multimedia treated as an experimental group, while the send group was given the same Lecture using the traditional method which uses the dialog and discussion technique treated as control group. Both groups were subjected to Pre and Post test in the subject tackled by the Lecture. The analysis result of the pre test showed no statistically significant difference, which in turns proves the equivalence of the two groups. Meanwhile the analysis result of the Post test showed the great change in the following way. There are statistically significant differences between the experimental

group and control group at the significant level of 0.05 for the interest of experimental group.

Background of the Study

The greatest contribution of Information technology is the development of computer and its use in all sectors of life. They have become more powerful (i.e., able to process and store much more data), faster, cheaper, portable, easy to use and more convenient. Personal computers (PCs) and laptop are now within the reach of even ordinary people. In recent years, accessories such as- hard disk, CD- ROMs, flesh drive, printers used with computers had also developed rapidly. Using these, a computer program can handle sound, picture and video along with text. "Multimedia" is a buzzword today in the field of computer. Multimedia involves combining text, sounds, still pictures and video etc.

This means that the world of computers is getting easier to the world of human beings. As the hardware develops, computer displays become more realistic and cheaper. The computer with its virtually instantaneous response to the student input, its extensive capacity to store and manipulate information its unmatched ability to serve many individual students simultaneously is widely used in instruction. The computer has the ability to control and manage a wide verity of media and learning material – films, filmstrips, videos, slides, audiotapes and printed information.

Now days in teaching learning process are used various of media like Computer, Multimedia, Radio, TV etc. Among all of them computer plays tremendous role in teaching – learning process. It provides a dynamic interaction between computer and students. Computer used as a delivery tools present information, receive the response, analyze the response and give immediate feedback to the students. The process is known as Computer assisted instruction (CAI).

At the Government level, computerization in India was promoted through its National policy on Education, 1986.;" The policy laid emphasis on the role of computers in enhancing the efficiency of the learning process in making children more creative and in providing them with an individualized learning environment.

At the academic level, CLASS project was initially introduced as a pilot project during the year 1984-1985 by the NCERT in the wake of the British aid of BBC microcomputers was the first step in promoting the use of microcomputers in Indian secondary schools. The objectives of project were to create the awareness among the school students about the computer and its use in teaching learning process. So that students make full benefit of information and communication technology in their daily life and in education at every level.

The follow-up programme of MHRD, CLASS 2000, has three components, viz computer literacy in 10,000 schools, computer aided learning in 1000 schools and computer based learning in 100 smart schools (Mallik, 2001) and CLASS 2002 the project has intended to accelerate the pace of introduction of IT in schools and create models of school computer education - so as to achieve the goals of universalisation of computer literacy among school passed outs within next five years. By 1990, the NCERT hopes to have spread its CLASS programme, to nearly 14,000 higher secondary schools in the country.

In the present age of science and technology computers and computer – based technology are being used in every walk of life and even in classroom teaching. In classroom teaching, the instructions are imparted through computers. But even today the educationist, teachers and researchers are not sure whether computer based teaching approach is more effective than the traditional classroom teaching or the traditional class room teaching methods are more effective than computer based teaching approaches.

Background of webquest Method

The web quest consists of the following elements (Ismael &Abdo, 2008).

a. **Introduction**: that provides the students with the cognitive background about the lesson's topic in a way that induces their motivation.
b. **The Task:** it is the most important and basic part of the web quest and includes the sub tasks, such as the collection, design, creative production, persuasion and issuing the rule, and other tasks.
c. **The process:** at this stage the mechanisms are determined and explained clearly to the students, also the steps they will make to accomplish toe educational tasks.
d. **The Sources**: at this stage a list of available sources is determined which cover the students cognitive needs, to be designed professionally and reliably.
e. **Evaluation**: this stage considers an important component of the web quest, so the students will

be able to perform the self-evaluation and compare what they had learned and accomplished and the teacher evaluates his students, work at the previous stages.

f. **Conclusion:** at this stage we should place a set of recommendations regarding the web quest work, and about the students work and the results they had reached, encouraging them toapply what they had learned of experiences to other settings.

The web quest strategy characterizes by its capability to greatly increases the students,attention about it contains of the sites, pictures, maps, figures, models, sounds, videos andother features, while the advantages of web quest strategy in education represent the following.

- Encouraging the collective work and exchange of ideas between the students.
- Enabling the students the opportunities for searching deeply for specific topics.
- Equipping the students with searching skills over the internet web.
- Encouraging the students, self-evaluation.
- Dealing with the information sources regarding the quality and efficiency.

Before starting the research work, researcher goes through the researches already done in this area and presenting you few researches which is related to the compression of Multimedia and traditional methods of teaching. In this regard, Yune-Kuang Cliff Liao (2007) investigated a Meta analysis to synthesize research comparing the effects of CAI and traditional instruction on students' achievement in Taiwan and suggested that CAI is more effective than traditional instruction in Taiwan and had positive effects on achievements. Positive outcomes were found for students with CAI were reported by Blok et. al.(2002), soe et. al.(2000). chiu (2002), and Ho (2000).

Retention of learning: It refers to the status of learning in computer science after 10 days of teaching either with traditional method or web quest method in 10^{th} class students of secondary schools located in Ramban District of Jammu & Kashmir.

Students: It refers to 10^{th}grade students of secondary schools located in Ramban District of Jammu & Kashmir.

Computer Science Concepts: It refers to topics or aspects of computer science covered in text books of secondary schools located in Ramban District of Jammu & Kashmir.

Delimitation of the study: The present study limited to students of 10th class enrolled in secondary schools of District Ramban of J&K State.

Statement of the Problem: "A study of retention of learning in Computer Science concepts in students with and without the use of webquest methods".

Area of Research: The area of research in the present research work is application of internet in teaching the teaching and learning of school subjects in school situations in the state of Jammu & Kashmir.

Review of Literature

Edwards, et.al (1975) reviewed some researches on the effects of CAI on achievement, retention and learning rate and its effects on students of different ability levels and revolved that CAI as supplement to traditional teaching in terms of achievement and learning rate. Hassel bring (1984) summarize results of research studies and meta analysis on the effects of computer based instruction on student achievement and attitudes and result favored the use of CAI over the traditional instruction. Wu (2002a), Wu (2002b) were reported similar findings. Dacany & Cohen (1992), Roblyeret.al. (1992) were found the similar finding in their researches and supports the computer based individualized instruction. Lie (1998), Li (1994), Huang (2003) shyu (1996), Zhau (1986) all reported significant gain for CAI over traditional instruction. But on other side Hsiao (2002), Hus (2000), Huang (2003), Lai (2002), Liu (2001) and Yu (2002) have found no significant difference between CAI and traditional instruction.

Bhatt (2002) investigated the effectiveness of multimedia package on atomic structure and chemical bonding and reported that both method CAI and traditional was equally effective. Naevdal (2007) investigated the relationship between home computer use and performance in English at school. The sample consists a 656 10th class students of age grouped 10 to 16 years in upper secondary schools in Bregen, Norway. Researcher reported that both boys and girls who seldom used home computers achieved low scores in English. However those students who spent two or more hours per day on computer, girls performed very well in English while boys failed.

Sharma. Indu. (2006). Learning Guarantee Programme: An Innovation for Improving Retention and Learning Achievement of Children. NCERT, New Delhi.

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Objectives

The objectives of the study were – (i) To identify major initiatives adopted under the Learning Guarantee Programme to improve retention and learning achievement of children at the elementary level; (ii) to document the processes adopted under the Learning Guarantee Programme for improving the retention and learning achievement of children at the elementary level; and (iii) to document significant features of the innovative practice for wider application as a replicable model and for upscaling in the concerned state. The practices of remedial teaching and group learning helped comparatively weaker children in improving their performance from lower to higher levels. This provided them an opportunity for exploration, experimentation and better interaction among themselves and with the teachers.

Zigicet. al. (2007) developed an interactive computer based learning strategy to assist in teaching water quality modeling to out Computer Based Instruction (CBI) effects. In the study CBI aid comprised a hyper textmarkup language (HTML) module and concluded that all the students found CBI aid helpful and easy to follow also felt they were able to complete their project with minimum supervision.

Singh, Y.P. (2007) conducted a comparative study of learning English spelling through computer and traditional method and revolved that CAI method was found superior than traditional method to teach English. Similar findings was reported by Singh, Y.V. (2007) when investigated the effectiveness of computer assisted instruction Vs traditional method in teaching science at upper primary level. In another study, Rani (2007) investigated the effects of CAI on language achievement of children with learning disability and reported that CAI method was found highly superior than traditional method for disabled students and also reported that no gender difference was found.

Nematullahet. Al. (2008) investigated the classroom interaction with reference to gender and technology. The study data were gathered through partial ethnography by a non– participant observer; two sessions of the course language laboratory that were carefully observed and notes were taken a focus on the nature of interactions. Results of the study show that the interaction patterns are gender –related only to some extent. Also, the interaction pattern in the laboratory classes is similar to, but not the same as, the whole– class discussion patterns proposed in earlier literature.

Khoo (2008) investigated that the primary objective of teaching activities is the flow of information between teacher and students. Direct and indirect methods of instruction are two main categories that many educators find useful for classifying teaching methods. No single method of instruction is ideal for a given topic of discussion. Traditional methods have the advantages of delivering very specific learning targets, where students are explained the importance of a subject with examples, logical reasons can be stressed upon to provide experiences that can inspire learning processes. However traditional teaching is highly developed on knowledge base and skill of the teacher. Communication is mostly one way and often requires some level of imaginative perception from the students.

Nwaocha (2010) carried our a study in Nigeria to Enhance students interest in mathematics via multimedia presentation and reported multimedia presentations can improve students' understanding, enthusiasm, class attendance and satisfaction. Kumar and Tiwari (2011) has dome a study to the effectiveness of computer assisted instruction program and traditional method of teaching English in standard –9th. In the study effect of gender, and methods on teaching English in class 9th evaluated

Sharma (2012) investigated a comparative study of the effectiveness of Language lab and conventional method of teaching English in developing oral communication skills among secondary school students and concluded that Language methods is more suitable for secondary level students as for as teaching English in developing Oral communication skills is concerned. Therefore it is very essential for teachers to change their traditional view about Computers & adopt language lab method of classroom teaching. Chen (2012) carried out a research on the learning effects of multimedia assisted instruction using information technology model. And in the study researcher favored multimedia assisted instruction to improve the information literacy. Yet the findings of these researchers are not consistent and definite. Therefore, there was an emergent need to conduct more researches in this direction. In the present investigation the relative effectiveness of computer-based interactive multimedia method and conventional direct method of teaching is compared.

Al-khidr (2014) and Al-Kasab (2011) pointed that one of the important challenges facing achieving the Geography Subject's objectives is the lack of using modern strategies in teaching. As many researchers stated, the common method in teaching Geography depends on memorization and drilling that make the students rely on the teacher in obtaining the geographic concepts and take them away from enquiry, research and thinking skills (Al-Edwan& Al-Shra, 2008).

(Gokalp, 2011). In 1995, Bernie Dodge and Tom March from San Diego State University developed a form of a lesson plan that incorporated links to the World Wide Web. Students were asked to complete some project and to solve problems. The scenario they were given was intriguing and motivating. The students were asked to build and analyze the information that they collected on the Internet and to fine solution to the problems.

(Lacina, 2007; Wang &Hannafin, 2008).Web Quest Strategy is considered one of the most important strategies that links between the educational planning of the educational process in an accurate form and between using the Internet. It is considered a constructive educational pattern that based on the learner model as a traveller and explorer, and it assured the interaction between the learners and the teacher during the educational process. Additionally, it reflects the idea of the modern teaching that relies on the latest technology as a source of knowledge.

(Al-Hila & Nofal, 2008:206): The Web Quest Strategy is defined as purposeful educational activities, guided by enquiry thatdepends on searching processes in the Internet to reach the correct information with less time andeffort and to develop the students' mental capabilities. It is an educational mean which aims at presenting a new learning system through integrating the Internet in the educational process, it is a flexible learning mean that can be used at all stages form school to the university.

Sen & Neufled (2006) see that this strategy is a cognitive journey in the Web to reach the correct information with less effort and time to develop thinking, this strategy makes the learning process an interesting process to the students that increases their motivation and participation in the classes.

Schweizer & Kossow (2007) assured the same idea as they also believe that Web Quest Strategy is a logical method used for the cognitive sailing in the Internet to deepen the students' understanding and expanding their thinking. And Halat (2008a) considered it as a teaching approach based on the student and on the constructive theory, thinking skills, and on the cooperative learning.

Significance of the Study

This study is compatible with the modern trends in teaching process in terms of its concentration on the concept of qualitative teaching which is characterized by being technological learning at the time the world started to increase the interaction between the teacher and the student on one hand and between the students themselves on the other hand. And the Web Quest Strategy considers an aspect of this global trend.

- The significance of this study lies in its harmony with the modern developmental thinking of which is represented by the project of knowledge economy that focuses on using technology and helping the student constructing the concepts by himself.
- Making the teachers of Computer Science aware of the Web Quest Strategy to improve the methods of teaching which have been already used and to develop them continuously at schools.
- Benefiting from the theoretical literature of the Web Quest Strategy in clarifying itseducational applications.
- It encourages the researchers to do more researches and experimenting in the teaching strategies of the Computer subject.
- It raises the student's academic achievement in Computer subject.
- It develops the teacher's abilities of using Webquest methods /multimedia in teaching and learning Computer subject in different School of District Ramban in Jammu & Kashmir state.

The present study is an effort to investigate the integration of internet in teaching and learning of computer science as a school subject at the secondary level using web quest method. India and all other countries of the world are making all possible efforts to integrate ICT knowledge, pedagogical knowledge and content knowledge. Research work on the present work especially in school situations in Jammu & Kashmir has not been undertaken. The findings of the research will provide the directions regarding possible use of web quest & multimedia in school situations in Jammu & Kashmir.

The Study's Limits and Determinants

Generalizing the study's results in the light of the following:

- The study is limited to a sample representing the 10th class students (500) of Govt./Private school located in Rural and Urban area of both males and Females who are enrolled for the session 2016 in different schools of education department of District Ramban in J&K State.
- The study is limited to teaching the concepts mentioned in the study of Computer Science concepts of 10th grade students.
- The study is limited to the teaching plans according to the web quest strategy and testing the acquisition of the Computer Science concepts prepared by the researcher for the purposes of this current study.

Methodology of Study

The researcher used the experimental method to studying the impact of an independent variable (a Computer presentation programme full use of multimedia and PowerPoint slide with sounds) on dependent variable (academic achievement) a comparison was made between the experimental group who studied by using a Computer presentation programme which uses multimedia along with a teacher, and the other group is control one who studied by using tradition way of discussion and dialog along with a teacher. The variable are controlled, which means that both groups are equivalent in terms of speciality, class room atmosphere, academic level, both males/Females, area included rural and urban, Teacher and teaching location and the two groups have undergone a pre and post academic achievement tests.

The Study Population and its Sample

The population of the study are School students of class 10th of different schools including rural and urban area (both males & Females) located in District Ramban in Jammu and Kashmir state.

Table 1.Distribution of Study Individuals According To the Strategy of Teaching and Gender

Gender	Strategy of Teaching		Total	Urban	Total Sample
	Experimental	Control		200	200
Males	60	55	115		
Females	40	45	85		

Procedures of the Study

The following procedures were followed to conduct this study:

- Identifying the Computer Science concepts that should be taught by analyzing the unit of Computer Fundamentals from 10th grade students.
- Preparing the plans of the lessons of the Computer Fundamental Unit in the 10th grade bokk of Computer Science according to Web Quest Strategy which includes the educational outputs of theunit, prepare power point presentation, tools and the educational means used in implementing the activities and identifying the steps of carrying out the lesson according to the Web Quest Strategy followed by evaluative questions tomea sure the students' degree of acquisition at every level.
- Preparing a test of the Computer Science concepts' acquisition and affirming its validity andreliability.
- Selecting the study Individuals from the 10th grade students studying at different High School Govt./Private in District Ramban Jammu and Kashmir state for the academic year 2016.
- Interviews with the 10th grade students (the study's individuals) were conducted to clarify the objective of the study, to make them aware of the web quest strategy and its importance in teaching. They were asked about some concepts related to Computer Science, but the researcher found that they had wrong concepts and unclear understanding of them. The steps of the web quest strategy and practical exercises and activities were provided before starting the experiment.
- Applying the pre-test to the Study groups to test their equivalence.
- Applying the post-test of Computer Science concepts' acquisition to the study Individuals directly afterfinishing the experiment.

Independent Variables

Learning Variable: Initial level of learning of computer science concepts by 10th class students of secondary schools located in Ramban District of Jammu & Kashmir.

Dependent Variable

Learning

Final level of learning of computer science concepts by 10th class students of secondary schools located in Ramban District of Jammu & Kashmir.

Retention of learning

Retention of computer science concepts by 10th class students of secondary schools located in Ramban District of Jammu & Kashmir after treatment with traditional method of teaching or web quest method of teaching after an interval of 10 days or subsequent level of learning after an interval of 10 days.

Treatment

Teaching with webquest method and traditional method

Tools to measure learning and retention of learning

The pre and post tests will be developed to measure the learning before and after teaching with traditional method or web quest method. The post test will be used to measure the retention of learning after an interval of 10 days.

Research Questions

1. How much the students of 10th classgain in learning as a result of the difference in pre-test mean score and post-test mean scores in computer science concepts as a result of teaching computer concepts using web quest method?
2. How much the students of 10thgain in learning as a result of the difference in pre-test mean score and post-test mean scores in computer science concepts as a result of teaching computer concepts using traditional methods?
3. How much the students of 10th classgain in learning as a result of teaching computer concepts using web quest method and traditional methods of teaching computer science?
4. How much gain in learning in computer science concepts is retained after teaching using traditional methods at an interval of 10 days or after subsequent intervals of 10 days?
5. How much gain in learning in computer science concepts is retained after teaching using web quest method at an interval of 10 days or after subsequent intervals of 10 days?
6. How much is the difference in the mean gain score of retention of learning as a result of using web quest method and traditional methods?

Objectives of Present Study

1. To investigate the gain in learning in computer science concepts in 10th class students as a result of the difference in pre-test mean score and post-test mean scores after teaching with traditional methods.
2. To investigate the gain in learning in computer science concepts in 10th class students as a result of the difference in pre-test mean score and post-test mean scores after teaching with web quest method.
3. To investigate the difference in the mean values of gain in learning computer science concepts in 10th class students as a result of teaching with traditional methods ad web quest method.
4. To investigate the retention of gain in learning of computer science concepts using traditional methods of teaching in 10th class students after an interval of 10 days.
5. To investigate the retention of gain in learning of computer science concepts using web quest method of teaching in 10th class students after an interval of 10 days.
6. To investigate the difference in the retention of gain in learning of computer science concepts using web quest method and traditional method of teaching in 10th class students after an interval of 10 days.

Null Hypotheses

1. There is no statistically significant gain in learning in computer science concepts in 10th class students as a result of the difference in pre-test mean score and post-test mean scores after teaching with traditional methods.
2. There is no statistically significant gain in learning in computer science concepts in 10th class students as a result of the difference in pre-test mean score and post-test mean scores after teaching with web quest method.
3. There is no statistically significant difference in the mean values of gains in learning computer science concepts in 10th class students as a result of teaching with traditional methods ad web quest method.
4. There is no statistically significant retention of gain in learning of computer science concepts using traditional methods of teaching in 10th class students after an interval of 10 days.

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5. There is no statistically significant retention of gain in learning of computer science concepts using web quest method of teaching in 10th class students after an interval of 10 days.
6. There is no statistically significant difference in the retention of gain in learning of computer science concepts using web quest method and traditional method of teaching in 10th class students of after an interval of 10 days.

Analysis and Interpretation of Results

Experimental Research step wise

Firstly I visited 16 Schools (Govt/Private) of District Ramban for pre Test and collect data related to Computer concepts in which 30 thirty questions given to students, as it is pre-test activity no treatment is given to any of the group.

Step-I: Pre-Test Activity: Two groups A and Group B Allot them printed questionnaire to both the groups by giving them fixed time of 40 minutes. After that I collect all the answer sheets from the students.

Step-II: Teaching phase: In this phase both the groups taught with different strategies, Group A taught by Webquest methods by taking the complete use of projector, laptop and students show all the contents with Powerpoint presentation and also allot them related task in relation to Webquest method. Group B also taught but with traditional method i.e with the use of Black board, pointer and by use of all the skills except technology. In this phase I taught both the groups separately, Group-A by Webquest methods (use of Projector and Laptop and all contents shown to students with PowerPoint presentation) and Group-B with as usual traditional Lecture method.

Step-III: After a gap of 7-10 days: When I visited to all the a schools once gain for Post-test both the groups again Tested for the same questionnaire by giving them same time of 40 minutes for testing "Retention of Learning".

Break/Gap of 7-10 days: Suddenly check their retention level again after a gap of 7-10 days respectively but no any direction was given to both the groups for conducting the same questionnaire again.

Step IV: Post-test: When same groups A & B once again tested after a gap of 7-10 days respectively and allot them same time of 40 minutes to attempt the Post-test questions.

Statistical Processing of the Study

The researcher in the statistical processing used the statistical package SPSS for analyzing all process.

1. Calculating the median.
2. Calculating the standard deviation.
3. T-test to examine the difference between the performance of experimental and control groups.

The Study Result and Its Discussion

After analyzing the experiment, the researcher conducted a post academic achievement test then he analyzed the study outcomes to figure out the impact of using Webquest and multimedia on student's academic achievements and the result were as follows:

Table 1.Result of pre academic achievement test for the control and experimental group

Group	Number	Median	Standard deviation	Student T-value	Significant difference
Control	20	5.05	1.637	1.915	0.063
Experiment	20	5.16	1.316		

Table 2.Result of post academic achievement test for the experiment and control group

Group	Number	Median	Standard deviation	Student T-value	Significant difference
Control	20	6.06	1.231	9.121	0.00
Experiment	20	10.00	1.239		

Table 3.Comparison between the result of pre and post achievement test for the control and experiment and control group

Group	Pre achievement test		Pre achievement test		Student T-value	Significant difference
	The Median	Standard deviation	The median	Standard deviation		
Control	5.05	1.637	6.06	1.231	3.639	0.002
Experiment	5.16	1.316	10.00	1.239	1.152	0.00

The result related first questions

Question (1) What is the impact of using multimedia on the student's academic achievements in the curriculum of Computer and its uses in education.

The result related to second question

Are there any statistically significant difference between the average marks of the students of experimental and control group in the pre-academic achievement test in the Computer and its uses in education curriculum.

To answer this question the medianand the standard deviation of the pre-academic achievement test for the experimental and control group were extracted as shown in table.1

Table 1 reads that there are no statistically significant difference between the experimental and control group at the significant level of 0.05 in the pre-test which indicates the equivalent of the two groups.

Result related to third question:

The result related to Third question

Question (3): Are there any statistically significant difference between the average grade of the experimental and control group in the post academic achievement test to students in the curriculum of Computer and its uses in education.

To answer that question, the standard deviation and the median were calculated for both the control and experimental group in the post academic achievement test shown in table-2.

Table-2 shown statistically significant different between the control and experimental group at the significant level of 0.05 in the post academic achievement test in favour of experimental group.

Findings

In a sample of 200 students of District Ramban J&K state comprising 15 different Schools including Govt. as well as Private recognised schools of class 10th and found that teaching with web quest methods has higher rate of Retention of learning in comparison to Traditional method of teaching. If Teacher use webquest method while teaching there will be maximum retention of learning in Students in different schools weather these schools are located in Rural/Urban areas and even there is co education or Boys/Girls only doesn't matter.

After getting the statistical result of pre and post academic achievement test of control and experiment group in a sample of 200 students of class 10th of District Ramban in Jammu and Kashmir State. The positive impact of webquest including multimedia was clear on teaching the curriculum of Computer and its uses in education and better scientific academic achievement of the experimental group in comparison to the result of control group (traditional method) which clearly proves that webquest method with full use of multimedia in education as an effective means and teaching a better learning in all situations and oriented better result on students academic achievements.

Study Recommendations

According to study results which indicated the effective use of multimedia compared to the traditional methods of teaching, the study recommends the followings.

- Using Webquest method & multimedia in theoretical subjects like English, Science & History.
- Expansion in using Webquest method & multimedia in teaching other theoretical curriculum and stressing the use of computer as an educational tool in teaching.
- Giving refresher training courses to all teachers regarding the use of Webquest method & multimedia in teaching educational subject Primary and secondary level provided that these courses will be available over the academic year.
- Conducting more Research studies using Webquest& multimedia in the academic curriculum in School Education Department and Higher Education Department at University level.

In this arena students of class 10th unable to understand all the concepts well due to the use of Traditional methods of teaching and no proper use of technology in Teaching Learning process. If teaching become more affective and interesting and we are able to take full concentration of the students. Teaching learning process should including learning Chain learning, Projector based, use of Technology. That's why I recommended Webquest method of teaching which include all these strategies which are helpful to make lesson, more affective, interesting and understandable, and also encourage learning by doing.

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