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DEVELOPMENT & EFFECTIVENESS OF MULTIMEDIA PACKAGE IN ECONOMICS SUBJECT FOR STANDARD XI STUDENTS

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INTRODUCTION

Economics is the social science that analyzes the production, distribution, and consumption of goods and services. Political economy was the earlier name for the subject, but economists in the late 19th century suggested "economics" as a shorter term for "economic science" that also avoided a narrow *political-interest* connotation and as similar in form to "mathematics", "ethics", and so forth.

Everyone is a part of economy and everyone uses the rules of economy too. From the time we are born, we become consumers of various products and services (say, medical services, baby foods, and so on). We grow and diversify to attain various different roles as producers, traders, mediators and agents. Today's world is that of "economic imperialism", where economical factors, most importantly, money dictates all the elements of the society, not to forget close family relations. With recession wreaking havoc, economics is something which even ignorant households are learning. Economics is a science which deals with production, distribution and consumption of goods and services. Therefore, we can conclude that whatever involves "transfer of money" includes "economics". There are two schools of economics, namely, microeconomics and macroeconomics. The combined results of these two determine the actual effect of economics on people. To list all the important functions of economics would be literary impossible as newer issues keep creeping up. In the following lines, we have described some broad and basic functions of economics.

Economic analysis may be applied throughout society, as *in* business, finance, health care, and government, but also *to* such diverse subjects as crime, education, the family, law, politics, religion, social institutions, war, and science. At the turn of the 21st century, the expanding domain of economics in the social sciences has been described as economic imperialism. An increasing number of economists have called for increased emphasis on environmental sustainability; this area of research is known as Ecological economics

IMPLICATIONS OF THE RELATED LITERATURE REVIEWED FOR PRESENT STUDY IN INDIA

From the literature reviewed by the investigator it was found that studies **Jeyamani (1991),Rose Antony stella V (1992), Khirwadkar(1998),Balasubramanian (2001), Dalwadi(2001),Sharma(2003)** etc, these studies are related science, mathematics, Physics, chemistry in different class at primary & secondary level found that teaching through computer software were found effective. Also the studies **Himani(1990), Joshi and Mahapatra(1995), Yadav(2000), Parikh(2006), Thakkar(200)** etc. these studies was related on develop teaching through computer software for Microsoft based class, knowing vocabulary on grammar for std I and on 11th std commerce students, all studies were found effective.

Investigator was found Very few studies on languages like **Zyoud (1999)**,was conducted study on development of Computer assisted English language Teaching of VII standard students". **Rathwa (2007)** was develop multimedia package for teaching Gujarati subject and **Barot (2005) & (2010)** two studies were found the effectiveness of CAI in Sanskrit teaching it was found effective, so it inspired the investigator to work on development of multimedia package on grammar.

IMPLICATIONS OF THE RELATED LITERATURE REVIEWED FOR THE PRESENT STUDY

A sizable number of studies reviewed revealed that the CAI used as supplement to traditional instruction, produces an educationally significant improvement in students' achievement. Also in a large number of studies the CAI has been found significantly

more effective than conventional instruction. Students learning rate has been found faster with CAI than with conventional instruction. The students have been found to have favorable reactions towards CAI. The CAI has been found effective on various subjects. Some of the studies have found that composite modes of instruction may not always result into higher cognitive learning in languages. Interactive modes of instruction on languages through Computer Assisted Learning Material (CALM) have been found quite effective. CAI on various subjects has been found useful for learners of varied profiles.

The review of Related Literature reveals that the studies conducted on languages particularly Economics is very rare. The investigator has not come across various studies but only two studies on effectiveness of CAI on Economics found.

The Related Literature Reviewed definitely establishes the effectiveness of computer as a medium of educational instruction. The Related Literature motivated the learner to take up a study on Economics instruction through computer.

RESEARCH DESIGN

Pre-test, post-test experimental and control group design was employed for the study for the written test.

POPULATION

All the Std. IX Students of Gujarati medium Higher Secondary schools of Baroda city in Gujarat State followed GSHEB Syllabus will be the target population of the present study.

SAMPLE:

Investigator was make list of schools which have computer facilities and two division have at lest class 11^{th}. From this list one school was be selected randomly & all student of class 11^{th} was constitute two sample. (1) Division was called as experimental group (2) other division was control group. Treatment was given randomly to group. There are 60 students in each class.

TOOLS AND TECHNIQUES:-

Following tools were constructed to realize the above objectives:

1 Achievement test:- Achievement tests, written was constructed by the investigator. The written tests was constituted on Subject. covering the contents of 11th std Economics Subject.

Achievement test in Economics is prepared for administering pre-test and post-test. This achievement test is prepared by the researcher keeping in mind content of the Economics Subject, which is selected for purpose of preparing Multimedia Package. This achievement consists of 5 Question, Types of Question was open ended and close ended. The achievement has the total weight age of 20 marks. The researcher has considered 30 minutes of time for solving the test. The prepared test was be referred to the experts in the field of education and Economics for its content validation and modification. Considering the suggestions by the experts, the final achievement test was be prepared.

2 Reaction Scale:- In order to study the reactions of the students towards the developed Multimedia package, objective-3 the researcher constructed a five point-Strongly agree, agree, disagree, undecided, strongly disagree reaction scales.

3. Procedure of the study:

For developing multimedia package the investigator was considered the Std. IX Economics syllabus. The investigator was keep in mind the following objectives during the development of multimedia package.

1) The students will be able to give the meaning of all difficult words.
2) The students will be able to learn Economics with interest.
3) The student will be able to understand Subject easily.
4) The students will be able to develop confidence in Economics.

The multimedia package was developed on the principals of programmed learning material (PLM). Developed programme material has different small frames. Each frame contains one bit of contents of the topic. This content is followed by a question and its answers are known as stimulus- response. This way the entire multimedia package developed. This programme material was shown to two subject experts for validating it in terms of the content of the subject and clarity of the language used in the material is also given to the two experts in the field of programme learning for checking the systematic

flow of instruction and formation of frames. Finally, the suggestion given by the experts was incorporated.

After completion of the programmed material it was programmed through the computer software for converting it into a multimedia package. For the purpose of programming, the researcher has chosen the MACRO MEDIA FLASH, PAGE MAKER was chosen because of the following characteristics.

1) It is windows based and user friendly.
2) It permits the colorful figures, graphics and pictures that make the content interesting.
3) Ease of simulation, and animation, which helps in easy understanding of content.
4) Provision for presenting for more then one window on screen at a time, which helps the researcher to present the text and figure at the same time.
5) It also helps for the narration.
6) It is also helpful for background effects and color.

The researcher was entered all frames of programme material in the data files. Pictures and symbols from the Corel draw, front-page were used for construction of different formulas and graphical presentation of content which was needed for multimedia package. By using this graphics researcher was made an attempt for preparing the multimedia package more interesting.

The developed multimedia package was shown to two experts in the field of computer programming and multimedia package, for checking the mode of presentation, clarity of the graphics, contiguity and modality. The suggestions from the experts were in-corporate. The modified multimedia package was used for the experimentation.

Phase I – Designing of multimedia package

Using of the various packages like macromedia flash, coral draw, page maker, Sony sound recorder with the features of sounds, text, color and background investigator was developed the Package.

The Whole Package has been Divided in13 Frames and Each frame has contain Text, Sound, Colors, Background etc.

Phase II –Administration of pre-test

The study was conducted for 5days and before the investigation investigator will take pre-test. Duration of pre-test 35 minute.

Phase III- Implementation of multimedia package

Developed Multimedia Package was be implemented in Experimental Group. Five days investigator was teach multimedia package in computer lab. Two students was set gather on one computer. Duration of teaching one day two periods of 35 minute.

Phase IV- Administration of Post test

After the implementation of the developed Package investigator was be employed the post test

Phase V- Administration of Reaction Scale

After the implantation of the developed multimedia package investigator was employed the reaction scale

DATA COLLECTION:-

The presenter has major 2 aspects; one aspect is to study the effectiveness of multimedia package. For this purpose single group pre-test and post-test design was followed. As per research design, an achievement test was administered twice, before the experiment as pre-test and after the experiment post-test with the help of computer.

Before the student started studying Economics through Multimedia package the investigator conduct pre-test. The students attempted the test and also got their doubts clarified. Investigator collected the scores of students when they completed the pre-test. The time by students for answer the test was thirty minutes.

Then investigator implemented the developed Multimedia Package 2 day after. All the students who had given pre-test were also given post-test and investigator had collected scores of individual students.

The researcher also administered reaction scales by computer on the students to collect their reaction on the developed Multimedia Package.

For the purpose of the objective no 3 i.e. to study the reaction of the students regarding development multimedia package. The investigator had constructed a reaction scale for the students. Investigator have given the useful instruction regarding how to fill up the reaction scale. An on average time taken for fill up reaction scale was 30 minutes.

DATA ANALYSIS:

Collection data were analyzed using appropriate statistics techniques. To study effectiveness of developed multimedia package, Mean, Standard Deviation , Std Error of difference and t-value will be computed. To study the reaction of the students towards developed multimedia package frequencies and percentage will be calculated.

FINDINGS

Multimedia Package can use very well for remediation purpose.

Prepared Multimedia Package in Economics was found effective in teaching Economics Subject to 11th std. Students as the post-test score was found significantly more than pre-test score.

The reaction of students towards the prepared Multimedia Package in Economics Subject was found positive.

CONCLUSION

The study was conducted by the investigator has revealed that the Multimedia Package developed by the investigator on selected topics of Subject of class 11th students was found effective in terms of achievement of the learners and their reactions. Such Software's need to be developed and widely deployed for the revival of . Such attempts need to be made at a large scale at all levels of Education.

BIBLIOGRAPHY

Adhikari , R. (1992). Development of computer aided instructional material on cell reproduction for class IX. In Goel, D.R (2000). Educational media in India. Delhi: Bharatiya kala prakasha.

Apte,D.G. and Dongre, P.K.(1960). *Teaching of Sanskrit in secondary school*. The M.S. University of Baroda: Acharya book depot.

Balasubramaninan,N.(2001).*Relative effectiveness among different modes of computer based instruction.* Experiments in Education, Vol XXIX, (2) Feb.2001, pp.27-31.

Barot,H.(2005). To study the effectiveness of CAI in Sanskrit for std. VIII students. An unpublished M.Ed. dissertation. Vadodara:CASE. The Maharaja sayajirao University of Baroda.

Barot,H.(2009). Development and effectiveness of CAI in Sanskrit standard IX students. An unpublished Ph.D. thesis Vadodara:CASE. The Maharaja sayajirao University of Baroda.

Bharadwaj. S.(1982). *Linguistic study of Dharmasutras*. Printed in India by shubolanker Marjpure Delhi: Manthan publication Rohtak.

Bhatt,B.D. (1994) . Modern encyclopedia of educational technology Delhi: kanishka publisher and Distributors. VOI.IV.

Casanova, A. (2004). Conducted a study entitled *An analysis of computer media communication technologies as tool to enhance learning.* Dissertation Abstract International 65(12).

Crews, J.M. (2003). Helping poor readers : A study of computer assisted instruction. Retrieved from http//www.jcrews @cmi. Arizona.edu/.

Coulsom.M.(1976). *Sanskrit an introduction to the classical language*. Britain: Oxford University press

Deota , N.P. (1985). A linguistic analysis of Sanskrit selection of the XIth standard of Gujarati state. An unpublished M.Ed dissertation. CASE. The M.S. university of Baroda.

Deota, N.P. (2003). Analysis of the VII standard Sanskrit textbook from etymological point of view. An unpublished research project. Department of education. The M.S. University of Baroda.

Das, A. (1998). Exploring effectiveness of computer assisted learning material on rhymes in different modes. An unpublished Ph.D. thesis, Vadodara: CASE, the M.S. University of Baroda.

Galvis, A. T. (2007) *Computer- assisted instruction (CAI) as teaching tool for occupational therapy education: A guide to understand CAI design and effectiveness.* (Ph.D Thesis, Texas Women's University,2007) Dissertation Abstract International, Vol.68, no.7, 2907-A.

Gilbert, D. W. (2006) Effectiveness of computer- assisted instruction blended with class-room teaching methods to acquire automotive psychomotor skill. (Ph.D. Thesis, Southern Illionis University at Carbondale,2006) Dissertation Abstracts International, Vol.67, no.8. 2907-A.

Goel, D.R. (2000) Educational media in India. New Delhi: bharatiya kala prakashan.

Crews, (2003). EFFECTIVENESS OF COMPUTER ASSISTED INSTUCTION. In www.chinagmai.ac.th/abstract199926.html

Himmani(1990). *Development of Computer Aided Instructional Material on mincrobes for class VIII.* In Goel,D.R.(2000). Educational Media in India. Delhi: Bharatiya Kala Prakashan.

Hsu, J.J. (1994). Computer Assisted Language Learning (CALL) the effect of ELS students use of instructional modification on listing comprehension. Dissertation Abstracts International, Vol.55, no.4,p-851.

Jeyamani, P. (1991). *Effectiveness of simulation modes of teaching through CAI.* In NCERT (1992). Fifth Survey of Research in Education , New Delhi:NCERT.

Joshi, Anuradha and Mahapatra, B.C. (1995). *Effectiveness of computer Software in terms of higher mental ability in science.* Indian Journal of Psychometric and Education, Vol.26(2) , 105-108.

Khirwadkar,A . (1998). Development of Computer Software for Learning Chemistry at Std. XI. Unpublished Ph.D. thesis. CASE:MSU.

Kulkarni, S.S. (1996). a pioneer of educational technology in India. In ruhela, S.P.(1999). Essentials of educational technology. New Delhi : Indian publication distribution.

M.H.R.D. (1968). National policy of education. New Delhi: government of India.

M.H.R.D. (1986). National policy of education. New Delhi: government of India.

Nimtrakul, (1999). Effectiveness of computer assisted instruction on atomic structure in chemistry. In www.chinagmai.ac.th/abstract199926.html

Parikh,P.D. (2006). Development and implementing Computer Assisted Learning Material for 11th std commerce students on subject Introduction to book-keeping and Accountancy prescribed by GSEB. An Unpublished M.Ed. Dissertation. Vadodara: CASE. The Maharaja sayajirao University of Baroda.

Rathwa, M.(2007). Development and Implementation of Multimedia Package for Teaching Gujarati subject. An unpolished M.Ed. Dissertation. Vadodara: CASE The Maharaja Sayajirao University of Baroda.

Robkob (1999). Achievement and Retention in science of prathom Suska 5 students in science studying through CAI. Retrieved from www.chinagmai.ac.th/abstract199926.html

Rose Anotny Stela V.(1992). Effectiveness of computer- Assisted Instruction with special Reference to underachievers. Ph.D. Education Bharathidasan University. Fifth Survey of Rescarch in Education, New Delhi:NCERT.

Shah,Beena and Agrawal,Rashmi.(1994). Teacher's attitude towards computer assisted instruction and computer education in relation to sex, organization and experience. Journal of Indian Education, Vol.20(3), 40-45.

Sharma,B.(2002). *Modern Methods of Teaching Sanskrit*. Sarup & Sons, New Delhi: Published by sarup & sons.

Sharma,D.(2003). A study of the effectiveness of computer Assisted Learning (CAL) in Chemistry for the students of standard XI. An unpolished M.Ed. dissertation. Vadodara: CASE. The Maharaja Sayajirao University of Baroda.

Singh R.D, Ahluwalia, S.P and Verma, S.K(1992). Teaching of mathematics. Effectiveness of Teaching Mathematics through Computer Assisted Instruction and Conventional method of Instruction. Indian Educational review, Vol 26(4): 15-34.

Vaisopha (1999). Construction of Computer Assisted Instruction in the Mathematics on topic 'Adding fraction' for prahom Suska 5 students. Retrieved from http://www.chinagmai.ac.th/abstract199921.htli/York: Bantam Books.

Yadav, s. (2000). A study of the effectiveness of the Computer Software for students of standard I. An unpublished M.Ed. dissertation. Vadodara: CAS. The Maharaja Sayajirao University of Baroda.

Zyoud, M. (1999). Development of Computer assisted English language teaching or VII standard students. An unpublished Ph.D Thesis. Vadodara: CASE. The M. S. University of Baroda.

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ENVIRONMENTAL ORIENTATION VALUE OF SECONDARY AND POST BASIC SCHOOL TEACHER IN THE CONTEXT OF THEIR GENDER

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INTRODUCTION

The concept of environment preservation and maintenance is increasingly by getting ground now a day. Environment education helps us easily performing Environment preservation and its maintenance. So it is inevitable for that imparting environment education to be inclined to words environment. The more the teacher is orientated to environment the more his environment teaching will be impressive effective and Successful. With this purpose this Research paper has been taken with the theme of the orientation value of teachers towards environment in context of the Schools stream and Gender, its method as to how this research work has been handled is given below.

PROBLEM SELECTION AND DEFINITION OF TERMINOLOGY

Environment:

The Hindi version of the word "Environment" is "Paryavaran". The word has been derived from a French word "Invoiren", Which means them atmosphere (Coverage) around. Hindi word "Paryavaran" is a compound word *viz* PARI+AVARAN Pari means around and avaran means siege or encirclement,. i.e. the things like air, water, land, trees and plants and animals (Flora and Flauna) included in nature are the part of environment. According to Oxford Adavanced Learners Dictionary of current English, environment means. The position conditions of impact around. According to chambers twentieth century Dictionary environment means the conditions effecting development of growth. According to National Environment (Preservation) Act 1986, item 2(c) environment

includes air, water, human being other animals-insects, Plants, minute creatures, bacteria and the inter relation present among them.

Orientation

Prasad (2005). He shoes face or sight is up going towards, eager (impatient).

English Kapoor (2011) Orientation (Inclination).

Value

Prasad (2005).Worth to be eradicated, worth to be uprooted, worth to be bought, that which is in the root, the money giver in turn of material, value, price, Salary.

Present research has been taken up to know the approach of teachers of secondary schools and post-basic schools about environment preservation and environment awareness i.e. to clearly understand what are their personal values about environment.

Secondary school

A school imparting education to the students of std IX and X.

Post basic school

One of the valued contribution of mahatma Gandhiji to India is the most important endowment of post-basic education. When congress Government prepared a programme for national resurrection in seven provinces of British India as a result of declaration of government of India act-1935, basic education of was one of its 14 mile stones. Gandhiji understood basic education as a tool (media) of social reconstruction. To him this was a major support of peaceful social revolution. He believed it as a major base of social revolution through reconstruction of individual` s physical, mental and spiritual aspects (development ). He wanted a social revolution (change) through individual` s physical, mental and spiritual change (development). He considered self-confidence and self-reliance as the base of individual` s comprehensive (all sided perfect) development. He believed that education was the birth right of every human being. That is why he believed it necessary (important) that all the children of 7-14 age group including boys and girls should be imparted free and compulsory education. Secondary schools run on the base of above philosophy are called post basic schools

Teacher

A teacher is an incarnation (idol) of that life which picks up others to the lofty heights of life by distributing the light of knowledge and marking their life dynamic, sensitive and

promoting them to do activities attached with high thinking (plain living and high thinking-our motto). Interns of present research work, an individual who performs the function of teaching learning in secondary schools by receiving pay (salary)

OBJECTIVES OF RESEARCH

1. To study of environmental orientation value of secondary and post basic school teachers in context of Male and Female teachers.

HYPOTHESES OF RESEARCH

1. There will be no significant difference in the mean of scores obtained in the environmental orientation value scale of secondary and post basic schools teachers.
2. There will be no significant difference in the mean of scores obtained in the environmental orientation value scale of secondary and post basic schools Male teachers.
3. There will be no significant difference in the mean of scores obtained in the environmental orientation value scale of secondary and post basic schools female teachers.

RESEARCH FIELD (SCOPE)

The field of present research is teachers working in secondary and post basic schools of Gujarat state.

LIMITATIONS OF RESEARCH

Present research is limited up to 412 teachers environmental orientation value scale score of secondary and post basic schools teachers of Gujarat state.

RESEARCH SAMPLE

The 209 secondary and 203 post basic schools teachers are sample of present research taken from all Gujarat secondary and post basic schools.

VARIABLES OF PRESENT RESEARCH IS GIVEN BELLOW

1. Schools Stream
2. Gender

RESEARCH METHODOLOGIES

Present research work is of numerical type. Survey method has been adopted for present research. Present Survey has been conducted through critical, measurement school survey method.

RESEARCH TOOLS

The Researcher has use "Environmental orientation Value Scale". Environmental Orientation Value Scale was developed by (Dr.Sheetala Prasad) Head Department of Psychology Ewing Christian College, Allahabad.

DATA COLLECTION

First of all 500 Environmental Orientation Value Scale were sent for data analysis out of which 412 Scale were filled in and returned by teachers of secondary and Post Basic Schools. There were 45 statements in all the Scale to test the Environmental Orientation Value. For those statements which were positive, the numbers given for all the options were 05 for completely agreed, 04 for agreed, 03 for neutral, 02 for disagreed and 01 for totally disagreed. The numbers of all given scale were counted. Then its mean, standard Deviation, t-value was found. At last the significant difference is got by researchers.

PURPORTS (GIST) OF RESEARCH

The formerly decided hypotheses were examined for the purport of research which yielded the following purports. Purport of present research are given under table.

Table

Purports of Research

Ho	Schools Stream	Variable of Research	N	MD	STD	T-Value	Significant level
1	Secondary Schools	Schools Stream	209	171.92	33.31	0.35	Not Significant
	Post Basic Schools		203	173.10	34.01		
2	Secondary Schools	Male Teachers	139	168	33.70	0.69	Not Significant
	Post Basic Schools		137	170.88	35.30		
3	Secondary Schools	Female Teachers	72	179.39	31.45	0.27	Not Significant
	Post Basic Schools		64	177.92	30.75		

ACADEMIC IMPLIED MEANING

1. No significant deference was found between the mean of scores on Environmental Orientation Value Scale obtained by Secondary and post Basic Schools teachers. Thus there was similarity between the Environmental Orientation Value of Secondary and Post Basic Schools Teachers. This shows Schools stream is not an effective variable on environmental orientation value.
2. No significant deference was found between the mean of scores on Environmental Orientation Value Scale obtained by Secondary and post Basic Male and Female Schools teachers. Thus there was similarity between the Environmental Orientation Value of Secondary and Post Basic Male and Female Schools Teachers. This shows Gender is not an effective variable on environmental orientation value.

SUGGESTIONS OF RESEARCH

1. Provision for training should be made in the environment related curriculum for teachers of all schools.
2. Environment (training) camp under Ecco club should be organized for the teachers of those schools that are found to be below average.
3. Eagerness (tendenly) towards environment should be increased with the increasing age.
4. The environment eagerness (Attachment) of village teachers should be more intense from that of urban teachers due to their direct contact with environment.

CONCLUSIONS

Present study tries to study Environment attachment value of teachers working in secondary schools and Post-Basic Schools of Gujarat state. As a result it was known that the teacher who is the architect of society, has to show his duty bounded ness not only with the class-room, but also with society, He was also to be interested in environment. It includes Gender of school in which he is working and also the stream of school in which he has studied, All these have their impact on his work. The researcher has come to the conclusion through his research work that no type of above mentioned differences has their impact on teacher's environment attachment in any way. Thus the teacher is not

made, but born so as soon as he becomes a teacher, his environment attachment value is increased. Thus I will be happy if my research work teachers that teacher world.

REFERENCES

Andre H. (2011). Value Orientation Awareness Of Consequences And Environmental Concern. Unpublished Doctoral Dissertation. University of Gothenburg.

Sweden. Laza V(2009). Knowledge, attitudes, and environment oriented behaviours for year old children. Applied medical informatics. Vol.24, No.1-2/2009, pp: 59-66

Sangsan P.(2013). Environmental Value Orientation and Environmental Impact Perception of Visitors to Khao Yai National Park. Park, Recreation, and Tourisim, Department of conservation, Faculty of Forestry, Kasetsart University, Bankok. Thailand.

Sujak B. (2013). Environmental Orientation Of Government Procurement In Singapore. Unpublished Doctoral Dissertation. School of Business Information Technology & Logistics Faculty of Business Rmit University.

Winston w. (2011). Excel 2010 Data Analysis and Business Modeling. PHL Learning Private Limited. Delhi

Kapil h. (1975). Shankhyiki ke mul tatv, agara. Vinod pustak mandir.

Pathak (2008). Paryavaran shiksha evam prabandhan. Anubhav publishing hous,alhabad.

Prasad. (2005). Bruhat hindi kosh, banarash.gyan mandal limited.

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STUDY OF ENVIRONMENTAL AWARENESS AMONG STUDENT TEACHERS

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Introduction

These ideologies were well recognized long ago by Mahatma Gandhi in his words what was required was:

"Education for life;

Education through life;

Education throughout life."

We have entered the new millennium looking forward to the expectations and excitements this millennium is going to offer. We would like to think that we are better off today than we were hundred years ago. It is possible that the future may be more marvelous and hilarious than the past and it is quite certain that our lives may change accordingly, keeping pace with the technological advancement and new discoveries. Nevertheless there are some solemn environmental issues Earth is possibly the only planet in the whole of the universe capable of sustaining life. Man appears to be the best creation of nature. Apart from man, the earth is also inhabited by animals, plants, birds, reptiles, insects, etc. The ascent of man begins from his habitat. Habitat is not just providing a roof over the head of an individual or family, but it is his environment on which his entire life depends.

The relation between man and nature is inextricably interwoven. Man belongs to nature and all his needs are satisfied by nature. He constitutes the most important consumer predator species in the world. Nature and humankind form an inseparable part of the total life support system. This system has five elements air, water, land, flora and fauna which are interconnected, interrelated and interdependent and finally symbiotic to each other so as to support the existence and survival of man.

To be aware of the fragility of the environment and of the interdependence between the environment and mankind. Also to behave considering those factors. Environmental

awareness is about being conscious of the world around you. Having concern for the world and the environment is what environmental awareness is all about. Living a 'green' lifestyle is the main concern of environmental awareness.

Environment is the surrounding of an object and it is an essential for all living things in this world and we, humans are part of the environment. Every living has the right to enjoy and nourish the natural environment. We are inherited the environment for our young generation. As for that, we are responsible to take care and protect our environment in order to live in a comfort and healthy environment. Clean environment will give us the lively and vibrant lifestyle. "To examine an individual's environment consciousness is to recognize how the physical place is significant, and look at the people/place relationship"
However, nowadays our environment is polluted. It is all are caused by our own self, the human beings.

Humans, in their overzealous attempts to develop the world around them, have set in motion the process of its deterioration. Today, we hear of environment problems such as pollution, acid rain, ozone depletion and the greenhouse effect. Pollution issue is a global issue that needs commitment from everyone. Pollution refers to the contamination or poisoning of the environment. Unfortunately, environment pollution has become part and parcel of modern-day living. Environmental pollution occurs when impure or harmful substances are released into the environment, either towards the air, water, land and others. This is because rapid industrialization and urbanization have contaminated both air and water.Air and water are the most essential needs of humans. Without them, humans would perish.

Education and Environment

The conjunction of the two entirely different words 'environment' and 'education' raises the key questions as to why, when and for what purpose these words have been linked However it has soon become apparent that the present imbalance in the environment has heel created by an unbalanced relationship between man and environment and urgent remedial measures arc required in preserving the good earth on which we live. But this cannot be achieved through enacting laws or by understanding.

Environmental education is a broader concept and its objectives and interdisciplinary nature car be seen from the definitions given by various commissions and agencies. In order to develop a useful holistic perspective of environment and its conservation, the supporters and practitioners recommended a variety of interrelated subjects like physics, chemistry, geography, commerce, accountancy, botany, zoology, economics, sociology, psychology and languages. It is very difficult for any single institution to undertake studies which would include all the aspects covered by such a wider concept.

Environmental education is the study of nature, natural resources, the interrelationship with man, human activities, disturbances to the environment and the attempts to improve the environment. It is the application of knowledge from different disciplines to study and manage the environment. It is also study and manages the environment. It is also study of the conditions, circumstances and influences that affect life and how life in turn responds. Life requires the correct balance of environmental conditions to survive. The study is conducted by researcher with a view to increase level of awareness of student teachers in Anand district. This study of connections in nature can explain how environment is being used and abused.

Objective of the study:

- To find the level of environmental awareness of student teachers of teacher training institute in Anand district.
- To find the level of participation in extension activities of student teachers of teacher training institute in Anand district.
- To find the level of environmental awareness of student teachers of teacher training institutes in Anand with regard to their gender.
- To find the level of environmental awareness of student teachers of teacher training institutes in Anand with regard to their subjects.

Hypotheses of the study:

- There will be no significant difference between environmental awareness mean scores of male and female student teachers of Anand district.

- There will be no significant difference between environmental awareness mean scores of student teachers of Anand district having languages and Accountancy-Commerce teaching methods.
- There will be no significant difference between environmental awareness mean scores of student teachers of Anand district having languages & Maths-Science teaching methods.
- There will be no significant difference between environmental awareness mean scores of student teachers of Anand district having Accountancy-Commerce & Maths-Science teaching methods.

Methodology of the Study:

The investigator adopted "survey method "and "random sampling Technique" to collect data. The sample is 280; the investigator has planned to take student teacher studying in Anand district teacher education institutes during year 2013-14. Therefore the investigator has taken five Teacher Training Institutions located around Anand. From each Teacher Training Colleges the Investigator has taken out 40-50 student teachers satisfying the population as male and female and different methods.

The investigator has prepared the tool with the help of experts and experienced teachers teaching various subjects in the schools of Anand district. Since there is no standard tool available for assessing the EVIRONMENTAL AWARENESS, The investigator worked out strategy to prepare and validate his own research tool studying the environmental awareness.

Three point scales of 45 statements about environmental awareness were prepared and administered to 150 male and 130 female student teachers of Anand district. Questionnaire is containing following topics related to environmental awareness.

- Basic knowledge about environment
- How to save environment through positive thinking
- Environmental pollution and how to reduce it?
- Minimum use of water- Energy and land
- Futuristic role of student teachers in sustaining Environment.
- What do students like or dislike from environment?

For testing stated hypotheses the following statistical technique are adopted.

- Mean.
- Standard deviation.
- T-test.

Student teachers have obtained score of environmental awareness scale between 45*3 = 135 and 45*1= 45 .Data were analysed and interpreted with the SPSS-21 programme. Findings and results are as under.

Analysis and Interpretation of the study

Collected data were analysed and interpreted according to hypotheses.

Hypothesis: 1 There will be no significant difference between environmental awareness mean scores of male and female student teachers of Anand district.

Table: 1 Significant difference between environmental awareness mean scores of male and female student teachers of Anand district.

Subject	Numbers	Mean	Standard Deviation	t value	t table	Significance
Male	150	59.33	13.01	2.02	1.96(0.05) 2.58(0.01)	Significant difference at 0.05 level only
Female	130	62.41	12.44			
TOTAL	280					
	t value	**2.02**	**Ho1 is rejected at 0.05 level only**			

According to Table: 1 at df = 278 t table values are 1.96(0.05) and 2.58 (0.01) levels. Here t calculated value 2.02 is higher than t value at 0.05 levels. The hypothesis 1 is rejected at 0.05 levels. There is seen significant difference between environmental awareness mean scores of male and female student teachers of Anand district. Environment awareness of female student teacher is higher than male female student teachers in Anand district.

Hypothesis:2 There will be no significant difference between environmental awareness mean scores of student teachers of Anand district having languages and Accountancy-Commerce teaching methods.

Table: 2 Significant differences between environmental awareness mean scores of student teachers of Anand district having languages and Accountancy-Commerce teaching methods.						
Subject	**Numbers**	**Mean**	**Standard Deviation**	**t value**	**t table**	**Significance**
Languages Method	110	60.92	12.01	2.29	1.96(0.05) 2.58(0.01)	Significant difference at 0.05 level only
Accountancy-Commerce Method	105	57.02	12.88			
TOTAL	215					
	t value	**2.29**	**Ho2 is rejected at 0.05 level only**			

According to Table: 2 at df = 213 t table values are 1.96(0.05) and 2.58 (0.01) levels. Here t calculated value 2.29 is higher than t value at 0.05 levels. The hypothesis 2 is rejected at 0.05 levels. There is seen significant difference between environmental awareness mean scores between languages and Accountancy-Commerce method student teachers of Anand district. Environment awareness of languages student teacher is higher than Accountancy -Commerce student teachers in Anand district.

Hypothesis3 There will be no significant difference between environmental awareness mean scores of student teachers of Anand district having languages and Maths-Science teaching methods.

Table:3 Significant differences between environmental awareness mean scores of student teachers of Anand district having languages and Maths-Science teaching methods.						
Subject	**Numbers**	**Mean**	**Standard Deviation**	**t value**	**t table**	**Significance**
Languages Method	110	60.92	12.01	1.96	1.96(0.05) 2.58(0.01)	Not Significant difference
Maths-Science Method	65	64.44	11.11			
TOTAL	175					
	t value	**1.95**	**Ho3 is accepted**			

According to Table: 3 at df = 173 t table values are 1.96(0.05) and 2.58 (0.01) levels. Here t calculated value 1.95 is not higher than t value at 0.05 levels. The hypothesis 3 is accepted. There is no significant difference between environmental awareness mean scores between languages and Maths-Science method student teachers of Anand district. Environment awareness of languages and Maths- Science student teachers are same.

Hypothesis4 There will be no significant difference between environmental awareness mean scores of student teachers of Anand district having Accountacy-Commerce and Maths-Science teaching methods.

Table: 4 Significant difference between environmental awareness mean scores of student teachers of Anand district having Accountancy-Commerce and Maths-Science teaching methods.

Subject	Numbers	Mean	Standard Deviation	t value	t table	Significance
Accountancy-Commerce Method	105	57.02	12.88	1.96	1.96(0.05) 2.58(0.01)	Significant difference at 0.01 level
Maths-Science Method	65	64.44	11.11			
TOTAL	170					
	t value	3.98	Ho4 is rejected at 0.01 level			

According to Table: 4 at df = 168 t table values are 1.96(0.05) and 2.58 (0.01) levels. Here t calculated value 3.98 is higher than t value at 0.01 levels. The hypothesis 4 is rejected at 0.01 levels. There is seen significant difference between environmental awareness mean scores between Accountancy-Commerce and maths-Science method student teachers of Anand district. Environment awareness of Maths-Science student teacher is higher than Accountancy -Commerce student teachers in Anand district.

Findings of the study

- Minimum Environmental awareness score was 52 and maximum score was 74 from the scale. It shows that Student teachers of Anand district are sincere about Environment as they are going to be a teracher.

- Environmental awareness of Maths-Science student teachers is higher than all groups.
- Environmental awareness of Accountancy-Commerce student teachers is less than all groups.
- There is seen significant difference between environmental awareness mean scores of Male and Female student teachers of Anand district.
- There is seen significant difference between environmental awareness mean scores of Languages and Accountancy- Commerce method student teachers of Anand district.
- There is no significant difference between environmental awareness mean scores of Languages and Maths-Science method student teachers of Anand district.
- There is seen significant difference between environmental awareness mean scores of Accountancy- Commerce and maths- Science method student teachers of Anand district.

From the light of the findings of the present study, the investigator would like to recommend the following. It is very essential to bring environmental education to make awareness of environmental concerns and legislations to the teacher training students. Seminars, workshops, debates, booster programs, interactive programmes, organizing may be conduct about environmental awareness of the teacher training students. Teacher training institute should joint venture of environmental awareness among male and female student teachers.

Camp activities like cleaning; planting trees, making awareness to urban and illiterate people through teacher trainees will increase aptitude and attitude towards environment.

Conclusion:

The completion of this present study the investigator has been prompted to conclude that the independent variable and the background variables included the present study are to be developed for the welfare of the teacher training students. Therefore, the investigator feels that on the compulsion of the proposed topics of research given here, valid information may be obtained with regard to environmental awareness.

The student teachers of Anand district showed significant variation in environmental education awareness. This suggests that the level influences the environmental education awareness of teachers. The male and female student teachers having different teaching methodology showed significant variation in environmental awareness.

References

Bawa, R. & Singh, R. (1987). Heritage conservation of natural protected area. In Desh Bandhu & G. Berberet. (Eds.) Environmental education for conservation and development. New Delhi: Indian Environmental Society.

Best, J.W & Kahn, J.V. (1989). Research in education. (6Ih ed.) New Delhi:Prentice Hall of India.

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

Gandhi, Indira (1992) Safeguarding environment. New Delhi: Wiky Eastern Limited.

R.A.Sharma, (2005-06) Philosophical Problems of Education, International publishing house, Meerut.

R.P.Bhatnagar, Poonam Rani Bhatnagar (2002), Readings in methodology of research in Eduaction and Psychology, Rajhans Publications, Meerut.

World Summit on Sustainable Development (WSSD) (2002). Johannesburg Declaration on Sustainable Development. Earth Summit 2002.

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PERSONALITY TYPE AND ACADEMIC ACHIEVEMENT OF SECONDARY SCHOOL STUDENTS

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INTRODUCTION

Personality is the sum total of the behavioural and mental characteristics that are distinctive of an individual (Andrew M. Colamn, 2009, p.565). It refers to individuals' unique and relatively stable patterns of behaviour, thoughts and feelings (Robert A. Baron, 2006, p.450). The nature of individuals varies, the personality of the individuals too varies and this is the law of nature and this varying nature has a tremendous impact on making life a success or a failure, including the life of the students.

NEED FOR THE STUDY

In its simple and broad perspective, the multitude of individuals' personality may be classified as introverts and extroverts, a classification originally made by Carl Jung, and reinforced by Eysenck. But Eyesenck believes that the concepts of Introversion-Extroversion did not originate in Jung but had a 2000 years history in Philosophy and Medicine of Hippocrates and Galden that combined Biological Constitution and Psychology (Dandapandi, 2006, p.326). The theory of person-situation interaction predicts that the extrovert will adapt best when he is asked to collaborate with others and that the introvert will adapt best when she is asked to carry out tasks independently (John W. Santrock, 2006, p.126). Extroverted individuals are outgoing, sociable and assertive; introverts are quiet and shy (Stephen P. Robbins, 2005, p.103). The extraverts prefer to be in the company of others while the introverts in being alone or with a chosen few. John Bearden places 'extroversion and introversion' as the first dimension, considering its significance and value, in his recently developed 'The Big-Five Model', more

typically called 'Big Five' that encompasses the significant variation in human personality. Learning occupies a significant role in one's life (Mangal and Uma Mangal, 2009, p.141) learning means modification of behaviour (Santi Dutt, 2007, p.160) and the students' learning output is mostly measured using the yardstick of academic achievement. Therefore the author has worked out a research design to study the influence of personality type on academic achievement of secondary students. On completion, this study would yield findings, based on which to the academic achievement of students could be improved in tune with their personality types as 'research is directed towards the solution of a problem (John W. Best and James V. Kahn, 2001, p.20)

TITLE OF THE STUDY

Personality Type and Academic Achievement of Secondary School Students

OBJECTIVES

1. To find out the personality type of secondary school students with reference to background variables – gender, residence, medium of instruction, nature of management and family size.
2. To find out academic achievement of secondary school students with reference to background variables.
3. To find out the significant difference in personality type of secondary school students with reference to background variables.
4. To find out the significant difference in academic achievement of secondary school students with reference to the background variables.
5. To find out the significant relationship, if any, between personality type and academic achievement of secondary school students with reference to background variables.

NULL HYPOTHESES

1. There is no significant difference in personality type of secondary students with reference to background variables - gender, residence, medium of instruction, nature of management and family size.
2. There is no significant difference in academic achievement of secondary school students with reference to background variables.

3. There is no significant relationship between personality type and academic achievement of secondary school students with reference to background variables.

METHOD AND PROCEDURE

After reviewing the characteristics of different methods of educational research, the investigator used survey method for the present study. All the secondary school students studying in the high and higher secondary schools in Tirunelveli form the population of the present study. From the population, the investigator selected 300 students using simple random sampling technique. For collecting the data, the investigator used Multidimensional Personality Inventory developed by Manjurani Aggarwal (1985) as the tool of the study. For measuring the academic achievement of secondary students, the investigator took quarterly marks of the students. For analyzing the data, Mean, Standard Deviation, 't'-test and Pearson's Product Moment Correlation were used.

DATA ANALYSIS AND FINDINGS

Table - 1

Personality Type of Secondary School Students

Variable	Category	Introvert		Ambient		Extrovert	
		N	%	N	%	N	%
Gender	Male	8	5.7	133	94.3	0	0.0
	Female	4	2.5	155	97.5	0	0.0
Residence	Rural	5	6.9	67	93.1	0	0.0
	Urban	7	3.1	221	96.9	0	0.0
Medium of Instruction	Tamil	10	5.4	176	94.6	0	0.0
	English	2	1.8	112	98.2	0	0.0
Nature of Management	Aided	9	4.5	193	95.5	0	0.0
	Unaided	3	3.1	95	96.9	0	0.0
Family Size	Small	6	2.8	209	97.2	0	0.0
	Large	6	7.1	79	92.9	0	0.0

It is understood from the above table that majority of the secondary school students classifying in terms of their gender, locality of residence, medium of instruction, nature of management and family size are ambivert.

Table - 2

Academic Achievement of Secondary School Students

Variable	Category	Low		Average		High	
		N	%	N	%	N	%
Gender	Male	4	2.8	121	85.8	16	11.3
	Female	11	6.9	131	82.4	17	10.7
Residence	Rural	6	8.3	57	79.2	9	12.5
	Urban	28	12.3	171	75.0	29	12.7
Medium of Instruction	Tamil	25	13.4	132	71.0	29	15.6
	English	13	11.4	75	65.8	26	22.8
Nature of Management	Aided	32	15.8	146	72.3	24	11.9
	Unaided	13	13.3	63	64.3	22	22.4
Family Size	Small	27	12.6	163	75.8	25	11.6
	Large	5	5.9	71	83.5	9	10.6

It is understood from the above table that majority of the secondary school students classifying in terms of their gender, locality of residence, medium of instruction, nature of management and family size are average in their academic achievement.

Null Hypothesis - 1

There is no significant difference in personality type of secondary school students with reference to background variables - gender, residence, medium of instruction, nature of management and family size.

Table - 3

Difference in Personality Type of Secondary School Students with reference to Background Variables

Variable	Category	N	Mean	SD	Calculated 't' Value	Table Value	Remark
Gender	Male	141	42.69	3.79	9.09	1.96	S
	Female	159	38.53	4.13			
Residence	Rural	72	41.92	4.40	3.16		S
	Urban	228	40.04	4.41			
Medium of Instruction	Tamil	186	41.13	4.65	3.35		S
	English	114	39.44	3.97			
Nature of Management	Aided	202	40.88	4.64	2.29		S
	Unaided	98	39.68	4.02			
Family Size	Small	215	40.44	4.38	0.27		NS
	Large	85	40.60	4.72			

Since the calculated value of 't' is greater than the table value at 5% level of significance, the null hypotheses with reference to gender, residence, medium of instruction and nature of management is rejected. Hence, there is significant difference in the personality type of secondary school students with reference to gender, residence, medium of instruction and nature of management.

In the case of family size of secondary school students, the calculated value of 't' is less than the table value at 5% level of significance, the null hypotheses with reference to family size is accepted. Hence, there is no significant difference in the personality type of secondary school students with reference to family size.

Null Hypothesis- 2

There is no significant difference in the academic achievement of secondary school students with reference to background variables.

Table - 4

Difference in Academic Achievement of Secondary School Students with reference to Background Variables

Variable	Category	N	Mean	SD	Calculated 't' Value	Table Value	Remark
Gender	Male	141	47.29	10.27	4.53	1.96	S
	Female	159	52.40	9.13			
Residence	Rural	72	46.07	6.98	4.80		S
	Urban	228	51.24	10.49			
Medium of Instruction	Tamil	186	45.38	5.66	10.99		S
	English	114	57.54	10.94			
Nature of Management	Aided	202	46.47	6.35	8.33		S
	Unaided	98	57.27	12.05			
Family Size	Small	215	49.95	9.78	0.12		NS
	Large	85	50.12	10.59			

Since the calculated value of 't' is greater than the table value at 5% level of significance, the null hypotheses with reference to gender, residence, medium of instruction and nature of management is rejected. Hence, there is significant difference in the academic achievement of secondary school students with reference to gender, residence, medium of instruction and nature of management.

In the case of family size of secondary school students, the calculated value of 't' is less than the table value at 5% level of significance, the null hypotheses with reference to family size is accepted. Hence, there is no significant difference in the academic achievement of secondary school students with reference to family size.

Null Hypothesis - 3

There is no significant relationship between personality type and academic achievement of secondary school students with reference to background variables.

Table - 5

Relationship between Personality Type and Academic Achievement of Secondary School Students with reference to Background Variables

Variable	Category	Calculated 'r' Value	Table Value	Remark
Gender	Male	-0.234	0.166	S
	Female	0.051	0.156	NS
Residence	Rural	-0.074	0.232	NS
	Urban	-0.177	0.132	S
Medium of Instruction	Tamil	-0.273	0.145	S
	English	0.046	0.185	NS
Nature of Management	Aided	-0.355	0.138	S
	Unaided	0.085	0.199	NS
Family Size	Small	-0.198	0.135	S
	Large	-0.175	0.213	NS

Since the calculated 'r' value is greater than the table value at 5% level of significance, the null hypotheses with reference to male, urban, Tamil medium, aided, small family categories of students is rejected. Hence, there is significant relationship between personality type and academic achievement of secondary school students.

In the case of female, rural, English medium, unaided, large family categories of students, the calculated 'r' value is accepted. Hence, there is no significant relationship between personality type and academic achievement of secondary school students.

IMPLICATIONS

The study reveals that the personality type of secondary students is ambient. Only a negligible percent of students is found to be introvert and none is an extrovert. This finding confirms the finding of Subahashini and Kalaimathi (2013). This finding exactly mirrors and pictures the existing social scenario of a social urban living. The youngsters, especially the growing adolescent students, are caught in-between the traditional and cultural bound family system and brought-up which is just contrary to the modern

materialistic, consumerist and westernized world outside, leading to the development of neither introvert nor extrovert in tune with their personality, but rather ambient. It is an attention-seeking finding that no secondary student is extrovert, typically representing the fact that the growing school students are tamed and warned by parents and elders, not to ask anything bold, even if it is ethically wrong or immoral or socially evil for the fear of inviting troubles directly or indirectly either sooner or later. Hence it goes without saying that secondary students should be given orientation and motivation to develop extrovert personality type to lead the future world where justice and equality blossoms for all.

This study exposed the fact that academic achievement of secondary school students is average. It corroborates the findings of Arul Lawrence and Deepa (2013). When comparing the low and the high achievers with the average achievers in terms of percentage, it is very marginal. Hence, the teachers, the parents and the schools should reflect and implement the ways and means of increasing the low performers to the average category and the average performers to the level of high achievers by providing necessary and all guidance and assistance.

There is significant difference in personality type and academic achievement of secondary school students with reference to the background variables gender, residence, medium of instruction, nature of management except family size. This may be because of the heredity and environment factors that have a sizable quantum of impact on personality type and academic achievement. Therefore keeping in mind the influence of these two major determinants, efforts should be made to minimize the differences.

The study reveals that there is relationship between personality type and academic achievement of secondary school students with regard to some categories of variables. This confirms the findings of Chowdhury (2006). At the same time there is no relationship between personality type and academic achievement of secondary school students with regard to some other categories. This confirms the common belief of the educationists that personality alone cannot decide the achievement of students, suggesting that there could be some other factors, and this beckons the teachers and parents to explore and find out those influencing factors and thereby helping the students in their academic advancement. Yet, the influence of personality on academic

achievement can never be kept off in its entirety and therefore a healthy orientation and support should be given to the children to develop the right personality type in congruence with the nature of individuals and the demands of the society for leading a happy and successful living because since 'a substantial volume of reported research support that personality has a dominant influence' (Sreelatha and Krishna Prasad, 2011).

REFERENCE

Baron, R. A., (2006). *Psychology.* New Delhi: Prentice Hall of India.

Best J.W. and Kahn, J.V., (2001). *Research in Education* (7th Ed.). New Delhi: Prentice Hall of India.

Chowdhury, M., (2006). Students' personality traits and academic performance: a five-factor model perspective. *College Quarterly, 9*(3). Retrieved from http://www.collegequarterly.ca/2006-vol09-num03-summer/chowdhury.html

Colman, M. A., (2009). *Dictionary of Psychology*. New York: Oxford University Press.

Dandapani, S., (2006). *Advanced Educational Psychology*. New Delhi: Anmol Publications.

Dutt, S. (2007). *Educational Psychology*. Kolkata: New Central Book Agency.

Lawrence, Arul. A. S., and Deepa, T., (2013). Emotional intelligence and academic achievement of high school students in Kanyakumari district. *International Journal of Physical and Social Sciences, 3*(2), 101-107.

Mangal, S.K., and Uma Mangal, (2009). *Essentials of Educational Technology*. New Delhi: PHI.

Robbins, S. P., (2005). *Organizational Behaviour* (11th Ed.). New Delhi: Prentice Hall of India.

Santrock, J.W.(2006). *Educational Psychology* (2nd Ed.). New Delhi: Tata McGraw-Hill.

Sreelatha, S., and Prasad, S.K., (2011). Relationship between personality and teacher effectiveness of mathematics teachers. *Research and Reflections on Education*, *9*(4), 21-24.

Subhashini, T., and Kalaimathi, H. D., (2013). Relationship between altruism and personality type among higher secondary school students -a survey. *Paripex - Indian Journal of Research, 2*(7), 55-56.

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VALUES FOR INFORMATION REVOLUTION

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INTRODUCTION

Values education is known internationally by a number of names, including moral education and character education, among others. Each variant has a slightly different meaning, pointing to one or other distinctive emphasis. Each variant is nonetheless united in the common belief that entering into the world of personal and societal values is a legitimate and increasingly important role for teachers and schools to play. This is not an attempt to supplant the influences of the home but rather to supplement them and, where necessary, to compensate for them. International research into teaching and schooling effects is overturning earlier beliefs that values were exclusively the preserve of families and/or religious bodies and that, as a result, schools function best in values neutral mode. This research is not only pointing out the hollowness of such a belief but the potential for it to lead to diminished effects in all realms of student achievement, including academic attainment. In fact, it could be asserted that, in a sense, teaching and schooling that function in values-neutral mode might actually serve to undermine the potential effects of other socializing agencies, including families.

THE POSITIVE IMPACT OF VALUES EDUCATION

Carr (2006, 2007, 2008, 2010) has argued persistently that values and effective teaching are inextricably interwoven and that, in that sense, values education goes to the heart of the role of the teacher and effective learning for the student. He focuses especially on the issue of relationships and the moral mentoring of the teacher as being central to teaching as an inherently relational profession. There is more than a hint of John Dewey (1916, 1929) and R. S. Peters (1981) in such postulations and, furthermore, recent empirical studies have provided confirming evidence of them.

Among these studies are those of Benninga et al. (2006, 2010) that, using the California Academic Index as a guide, were able to show a correlation between high quality values (character) development and strengthened academic achievement. Davidson et al. (2007,

2010) provide explanation and evidence for a similar correlation in their linking 'performance character' and 'moral character' as integrally related in the development of personhood. Osterman (2010) offers further evidence of these joint effects in showing that it is the teacher who both provides quality content in the context of effective pedagogy and establishes good relationships with students who enjoys the greater academic impact. In other words, establishing positive relationships with students is itself part of effective pedagogy and, in a circular effect, high quality teaching has its own positive impact on strengthening student-teacher relationships. In confirming this twin effect, Osterman (2010) cites results of a study that showed positive relationships among students were an inherent feature of teachers achieving optimal results. Studies that provide both fortified conceptual proffering and empirical verification of the inherent interconnections between values education and holistic student wellbeing, including academic enhancement, are growing in number and scope (Nucci & Narvaez, 2008; Lovat & Toomey, 2009; Lovat et al., 2010a; Lovat et al., 2011).

VALUES EDUCATION FOR TODAY'S WORLD

Our first priority s to help our students to become fully HUMAN PERSONS, with minds that can think clearly and critically, with hearts that can love and care deeply, and with wills that can decide to act freely and responsibly. This means, we have to enable our students how to value, to choose among alternatives, and to translate knowledge and skills into practice. This is what is referred to when we speak of VALUES EDUCATION, neglected component in today's education. Indeed, VALUES EDUCATION which is the heart of all education should be an integral part of a holistic education that develops all the human faculties of intellect, emotions and will: That it is not simple matter to introduce it in the school curriculum is no reason why we should not try.

There are many misconceptions regarding VALUES EDUCATION. A relatively new field in the behavioral sciences, it has a cognitive base with an affective element which finds its expression in behavior. One cannot deny that values are a powerful motivating force in one's life, because they have the power to translate knowledge and skills into practice. Values development embraces more than the formal subjects of

Religion and Ethics. It enables the student not only to know and understand norms and rules of conduct, but to accept and treasure them as guides to decisions and life-choices. It does not prescribe or dictate, but leads the learner to discover and to commit oneself to chosen ideals and values. It teaches one how to prioritize, to reflect on the consistency between one's values and behavior, to evaluate, to reinforce or to modify.

Since Values Education requires different approaches and strategies, its methodology varies from that of content subjects or skills training. Hence, values educators have to be trained or re-trained, administrators re-oriented, curriculum materials developed, research carried out. Universally recognized and shared values have to be situated in the socio-cultural milieu of the learner and adapted to the person's needs and experiences.

Value sources abound in the cultural heritage and traditions of humankind and of each specific group; in their histories and accumulated achievements, as they too are found in the living contemporary present, in daily life and occurrences, as well as in the people's aspirations and dreams of a preferred future. The world's great religions, the belief and normative systems of cultural groups as well as universally shared and common values of humankind, - such as respect for Human Rights and Fundamental Freedoms, Truth, Justice and Peace, Security and Liberty, Life, Health, Love and Happiness, are rich sources of values education. The complexity and difficulty of introducing the values dimension in education is not insurmountable. It is feasible to integrate values in the formal curriculum since every subject area has a value component or to introduce it as a separate course, where values as motivations and mainsprings of human behavior are dealt with in a total cognitive-affective-experiential approach.

The saying that values are caught rather than taught is a truism. We all know too well that personal example, not precepts, is the best teacher and that the values educator to be effective has to be a role model, for one teaches more by how one lives than by what one says.

VALUES for GLOBALISM and the INFORMATION REVOLUTION

Today, people are beginning to view globalism as a trend in the relationships of nations and their citizens with one another towards interdependence and solidarity. They

envision a global village made possible by the increasing exchange of information, current events, views, and opinions, free trade, common enterprises, agreements, treaties, and networks through the information and communication superhighways that crisis-cross the globe.

Our universities today are in hurry to adapt the curriculum to the trends and goals of their respective national economies/democracies towards Globalism, to produce graduates who have competitive advantage in knowledge and skills required in the global market, who are functional in the global arena. Van Steenbergen (1994) suggests a new stage of global ecological citizenship and Sakamoto (1994) announces the beginning of the age of global democracy. In truth, there has been a great progress on the universalisation of human rights and democracy, on the liberalization of trade and commerce, but there is also a widening gap between the ideal as enshrined in international documents and agreements, and the practices of the real world.

In too many places, we see cruelty and inhumanity inconceivable in this modern enlightened age, and the outlook to reverse the trend is not too promising. The rights of future generations are at stake. The way we live today does not guarantee their survival and development. Even in developed countries, there is widespread discontent. Chomsky (1994) hold a vision of democracy's slow death as a de facto world government takes shape, by and for the rich. Globalism gradually leads to a super culture, a monoculture imposed by the powerful and the rich, threatening the existence of diverse cultures and depriving us of the wealth of our cultural diversity, of the contributions of nations less materially developed but possessed of valuable spiritual and cultural heritage the world can learn from – unless we learn and teach the values of tolerance and mutual respect, of acceptance and appreciation of "the other", of open-mindedness, of harmony and peace.

Educators should be able to identify the main tensions central to the problems of the future which pose great risks and grave threats to the freedom of the human person and of society. Jacques Delors in his Commission's Report to UNESCO on Education for the Twenty-first Century writes about the tensions between:

- The global and the local: how to become world citizens without losing one's roots and while continuing to play an active role in the life of their nation and local community;

- The universal and the individual: as cultures become gradually globalized the risks of forgetting and ignoring the unique character of human beings, their right to choose their own future and to achieve their full potential in the context of their own rich cultures and traditions;
- Tradition and modernity: how to adapt to change without losing the past, how to assimilate scientific progress without losing one's freedom and cherished values;
- Long-term and short-term considerations: how to balance the over-abundance of transient information and emotions, and the dependence on quick answers and ready solutions, - with the need for well-thought of, carefully-planned, concerted and negotiated strategy for reform, which requires time and patience;
- The need for competition and the concern for equality of opportunity;
- The knowledge and information revolution and the capacity of human beings to assimilate, to reflect and to discern, to choose, to accept or to reject; and,
- Lastly, the spiritual and the material, for the world, without realizing it, has a longing for deep human, ethical and spiritual values.

A related phenomenon today is the rapid expansion of information and communication technologies. This on-going revolution may have faster and greater impact than any of the past technological advances humankind has ever known. The world is being transformed from an industrial to an information society. Computer technology, telecommunications, and satellites are already revolutionizing the economy, production, consumption and trade, as well as our cultural values, tastes and habits, our forms of entertainment and lifestyles. What their effects on education and learning of our youth, on lifelong education, on cultural diversity and pluralism, on citizenship and governance, on the moral, ethical and spiritual fiber of peoples around the globe, - is a serious matter to ponder about.

From print to electronic media, instant rapid information holds its viewers especially the young as captive audiences, all their senses glued tot he tube, so to speak, rendering them vulnerable to the onslaught of views, sounds and images dictated by powerful conglomerates who, knowingly or unknowingly, control the thinking, judgments, emotions and values of a susceptible public who are unprepared to sift and evaluate

information, to weigh alternatives, to form reasoned opinions, and to make intelligent and free decisions.

The "City of Bytes" is sketched as the new capital of the 21st Century. Some view the increasing globalization of communication as facing the risk of cultural homogenization, the rise of a monoculture swallowing up the world's diverse cultures. Others fear the existing gap between the info-rich and the info-poor may widen and lead to further imbalances between developed and less developed countries, leading to a new type of exclusion. Already in 1980, the MacBride Report stated that the rapid increase of the volume of information and entertainment has brought about the homogenization of different societies, and people have become more cut-off from the society in which they live.

And what about the internet and the e-mail? They have revolutionized our modes of learning and communicating. They have opened wide avenues of knowledge, expanded horizons as never before, bridged distances; overcome the barriers of time and space. Yet, untold risks and dangers abound, especially for the young. Who care and who sees to it that their young minds and hearts, their needs and problems, their rights and sensibilities are taken into consideration? Who protects the right to privacy and decency? Who safeguards intellectual properties?

The issue of the uses and challenges raised by the internet was discussed by the Executive Board of UNESCO in its 150th Session in October 1996. It was recognized that the internet is "a revolution that changes our vision of things," and that the issue is not merely technical, but also ethical, including aspects of intellectual property and confidentiality; that the new information technologies are already affecting people's lives in many important ways; and that UNESCO will take the lead in reflecting on legal, ethical and societal issues while maintaining the "free flow of information and ideas" as a top priority.

CONCLUSION

Indeed, information technology is a two-faced coin. As it informs and spreads knowledge, it can form and transform us or it can destroy and deform the humanity in us. Whatever opinions are expressed about the pros and cons of the new revolution, there is a

common emerging realization that technology should accommodate itself to the needs and capabilities of humanity, and not the other way around, that is should be guided by a genuine concern for the rights of all, the development of the present and protection of generations to come.

Thus, technology is not of itself beneficial or harmful. It is a tool invented and developed by human creativity and industry. Its real worth depends on the use we make of it. It should not therefore suppress other forms of communication that create a sense of community and enhance human ingenuity, aesthetics and art, culture and religion. The right to information and communication, to data security and confidentiality, to participation in policy and decision-making, should be recognized and safeguarded. It should protect the morals and consciences of young people from being warped by gross immorality, unbridled pornography, and violence. It should be guided by a balanced and reasonable policy which recognizes both the right of access to information as well as the right to select or to reject communication technology. Particular attention should be given to the fact that simulated or virtual realities are not actual realities. Those are educative aspects to be considered to form part of the planning and policy-making activities of IT.

It behoves us, educators, to promote reflection on the societal and individual impacts, both positive and negative, of the new information and communication technologies, to develop those values that ensure the safeguarding of the rights and welfare of their users, present, and future, and to foster their potential for the advancement of education, science, culture, democracy and peace.

Colleagues and partners in education let us stop worshipping at the altar of high-tech. Its value is only instrumental and has to be judged by how efficiently and effectively it promotes the welfare of the human person, his physical and economic well-being as well as his deep ethical, moral and spiritual values. Let us be concerned to make our students not merely smart, but also good. Let us strive for moral excellence, alongside with academic excellence. Let us educate the whole person, and recognize that values education is the heart of all education which is human, holistic and democratic, progressive and modern, yet respectful of differences, tolerant and appreciative of diversity, - for these are the ingredients we need to transform our culture of violence to a genuine and sustainable culture of peace.

Colleagues in education, I have left this with more questions than answers. But for the sake of the future generations, we must have the courage, the will and the commitment to grapple with these problems, face the challenges, and search for solutions.

REFERENCES

Aleksander Sholtzshemitsyn, cited by Adrian Cristobal, the Philippine Daily Inquirer, March 27, 1997

Benninga, J., Berkowitz, M., Kuehn, P., & Smith, K. (2006). Character and academics: What good schools do. *Phi Delta Kappan, 87,* 448-452.

Benninga, J., & Tracz, S. (2010). Continuity and discontinuity in character education. In T. Lovat, R. Toomey & N. Clement (Eds.), *International research handbook on values education and student wellbeing.* (pp. 521-548) Dordrecht, Netherlands: Springer.

Carr, D. (2006). Professional and personal values and virtues in education and teaching. *Oxford Review of Education*, *32,* 171-183.

Carr, D. (2007). Character in teaching. *British Journal of Educational Studies, 55,* 369-389.

Carr, D. (2008). Character education as the cultivation of virtue. In L. P. Nucci & D. Narvaez (Eds.), *Handbook of moral and character education.* (pp. 99–116) New York: Routledge.

Carr, D. (2010). Personal and professional values in teaching. In T. Lovat, R. Toomey & N. Clement (Eds.), *International research handbook on values education and student wellbeing*. (pp. 63-74) Dordrecht, Netherlands: Springer.

Davis, H.A. (2006). Exploring the contexts of relationship quality between middle school students and teachers. *The Elementary School Journal, 106,* 193-223.

Dewey, J. (1916). *Democracy and education: An introduction to the philosophy of education*. New York: The Free Press.

Dewey, J. (1929). *The sources of a science of education*. New York: Horace Liveright.

FUTURESCO, A UNESCO bulletin for future-oriented literature. "The Futures of Human Rights and Democracy," No.5, June 1996

FUTURESCO, "Impact and Future Challenges of the New Communication Technologies,"No.6, October 1996

Information Technology: A Policy Workshop. UNESCO National Commission of the Philippines and Asian-Institute of Technology, Quezon City, Metro Manila, 25-26 July 1996

Learning: The Treasure Within, Jacques Delors, UNESCO, 1996

Lourdes R. Quisumbing, "Teacher Education for the New Millennium." Paper read at the Philippine Normal University International Conference on Education, January 9-11, 2001, Manila.

Lovat, T., & Toomey, R. (Eds.). (2009). *Values education and quality teaching: The double helix effect*. Dordrecht, Netherlands: Springer.

Lovat, T., Toomey, R., Dally, K., & Clement, N. (2009). *Project to test and measure the impact of values education on student effects and school ambience*. Report for the Australian Government Department of Education, Employment and Workplace Relations (DEEWR) by The University of Newcastle, Australia. Canberra: DEEWR. Available at :http://www.valueseducation.edu.au/values/ val_articles, 8884.html.

Lovat, T., Toomey, R. & Clement, N. (Eds.), (2010a). *International research handbook on values education and student wellbeing*. Dordrecht, Netherlands: Springer.

Lovat, T., Clement, N., Dally, K. & Toomey, R. (2010b). Addressing issues of religious difference through values education: An Islam instance. *Cambridge Journal of Education, 40,* 213-227.

Lovat, T., Dally, K., Clement, N. & Toomey, R. (2011). *Values pedagogy and student achievement: Contemporary research evidence.* Dordrecht, Netherlands: Springer.

National Congress on Continuing Education, Pasig City, Metro Manila, 24-25 October 1996

Ofsted (2007). *Inspection report: West Kidlington Primary School, 21-22 March, 2007.* Manchester, UK: Office for Standards in Education.

Peters, R.S. (1981). *Moral development and moral education*. London: George Allen & Unwin.

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DEVELOPMENT AND EFFECTIVENESS OF CAI IN ENGLISH GRAMMAR FOR STD. IX STUDENTS

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INTRODUCTION

The world in which we live is changing rapidly and the field of education is experiencing these changes in particular as it applies to Media Services. The old days of an educational institution having an isolated audio-visual department are long gone! The growth in use of multimedia within the education sector has accelerated in recent years, and looks set for continued expansion in the future.

Teachers primarily require access to learning resources, which can support concept development by learners in a variety of ways to meet individual learning needs. The development of multimedia technologies for learning offers new ways in which learning can take place in schools and the home. Enabling teachers to have access to multimedia learning resources, which support constructive concept development, allows the teacher to focus more on being a facilitator of learning while working with individual students. Extending the use of multimedia learning resources to the home represents an educational opportunity with the potential to improve student learning.

The elements used in multimedia have all existed before. Multimedia simply combines these elements into a powerful new tool, especially in the hands of teachers and students. Interactive multimedia weaves five basic types of media into the learning environment: text, video, sound, graphics and animation. Since the mode of learning is interactive and not linear, a student or teacher can choose what to investigate next. For example, one does not start on the first page of a linear document and read to the end. Interactive

multimedia learning mode is more like constructing a spider's web, with one idea linked to another, allowing choices in the learner's path.

The multimedia technologies that have had the greatest impact in education are those that augment the existing curriculum, allowing both immediate enhancement and encouraging further curriculum development. For example, the WWW serves as a storehouse of information that individual learners can search for subject matter content that specifically fits their learning agendas. Multimedia applications for computers have been developed for single computing platforms such as the PC, Apple Mac and games machines.

IMPLICATIONS FOR THE PRESENT STUDY

A sizable number of studies reviewed revealed that the CAI used as supplement to traditional instruction, produces an educationally significant improvement in students' achievement. Also in a large number of studies the CAI has been found significantly more effective than conventional instruction. Students learning rate has been found faster with CAI than with conventional instruction. The students have been found to have favorable reactions towards CAI. The CAI has been found effective on various subjects. Some of the studies have found that composite modes of instruction may not always result into higher cognitive learning in languages. Interactive modes of instruction on languages through Computer Assisted Learning Material (CALM) have been found quite effective. CAI on various subjects has been found useful for learners of varied profiles.

The review of Related Literature reveals that the studies conducted on languages particularly English are very rare. The investigator has not come across any study on effectiveness of CAI on English Grammar.

The Related Literature Reviewed definitely establishes the effectiveness of computer as a medium of educational instruction. The Related Literature motivated the learner to take up a study on English Grammar instruction through computer.

METHODOLOGY:

The present study was an experimental study. Detail of the methodology like design of the study, population, sample, tool, development of the package, data collection and data analysis are discussed here as follows.

STATEMENT OF THE PROBLEM

Development and Effectiveness of CAI in English Grammar for Std. IX Students

OBJECTIVES OF THE STUDY

1. To develop Computer Assisted Instruction (CAI) on English Grammar for Standard IX Students.
2. To study the effectiveness of the CAI in terms of achievement of Std. IX Students on English Grammar.
3. To study the reactions of the Standard IX Students on the CAI developed by the investigator.

OPERATIONALIZATION OF TERMS

CAI IN ENGLISH: CAI in English Grammar in the presents study refers to the Computer Assisted Instructional Package developed by researcher using various software to teach English Grammar to Std. IX students.

ACHIEVEMENT: Here, achievement means the marks obtained by the students of standard IX on the pre- test and post-test of English Grammar constructed by the investigator on the selected English Grammar points from Std. IX.

EFFECTIVENESS OF CAI: Here, effectiveness of CAI has been studied in terms of the significance of difference of mean achievement gain scores of the students obtained on the pre-test and post-test, and their reactions on the developed CAI.

HYPOTHESES

1. There was no significance difference in the mean gain scores of experimental and control group of the students on written pre-test and post-test.

2. There was no significance difference in the mean scores of experimental group and control group of the students on oral post-test.
3. There was no significant difference in the observed frequencies and frequencies expected against equal probability against various statements of the reaction scale

DELIMITATION OF THE STUDY

The present study is delimited to English Grammar Section of Gujarati medium Std. IX of GSHEB.

RESEARCH DESIGN

Pre-test, post-test experimental and control group design was employed for the study for the written test.

POPULATION

All the Gujarati medium schools of Gujarat State under GSHEB was the target population of the present study.

SAMPLE

Investigator was make list of schools which have computer facilities and two division have at lest class 9^{th}. From this list one school was be selected randomly & All student of class 9^{th} was constitute two sample. (1) Division was called as experimental group (2) other division was control group. Treatment was given randomly to group. There are 60 students in each class.

TOOLS AND TECHNIQUES

Following tools were constructed to realize the above objectives:

1 Achievement test: An Achievement test, written was constructed by the investigator. The written test was constituted on Grammar covering the contents of 9^{th} standard Grammar.

Achievement test in English is prepared for administering pre-test and post-test. This achievement test is prepared by the researcher keeping in mind content of the English Grammar, which is selected for purpose of preparing Multimedia Package. This achievement consists of 5 Question, Types of Question was open ended and close ended. The achievement has the total weight age of 20 marks. The researcher has considered 30 minutes of time for solving the test. The prepared test was referred to the experts in the field of education and English for its content validation and modification. Considering the suggestions by the experts, the final achievement test was prepared.

2 Reaction Scale: In order to study the reactions of the students towards the developed Multimedia package, objective-3 the researcher constructed a five point-Strongly agree, agree, disagree, undecided, strongly disagree reaction scales.

3. Procedure of the study:

For developing multimedia package the investigator was considered the Std. IX English syllabus. The investigator was kept in mind the following objectives during the development of multimedia package.

1. The students were able to give the meaning of all difficult grammar points.
2. The students were able to learn English grammar with interest.
3. The students were able to understand grammar easily.
4. The students were able to develop confidence in English grammar.

The multimedia package was developed on the principals of programmed learning material (PLM). Developed programme material has different small frames. Each frame contains one bit of contents of the topic. This content is followed by a question and its answers are known as stimulus- response. This way the entire multimedia package developed. This programme material was shown to two subject experts for validating it in terms of the content of the subject and clarity of the language used in the material is also given to the two experts in the field of programme learning for checking the systematic flow of instruction and formation of frames. Finally, the suggestion given by the experts was incorporated.

After completion of the programmed material it was programmed through the computer software for converting it into a multimedia package. For the purpose of programming, the researcher has chosen the MACRO MEDIA FLASH, PAGE MAKER was chosen because of the following characteristics.

1. It is windows based and user friendly.
2. It permits the colorful figures, graphics and pictures that make the content interesting.
3. Ease of simulation, and animation, which helps in easy understanding of content.
4. Provision for presenting for more than one window on screen at a time, which helps the researcher to present the text and figure at the same time.
5. It also helps for the narration.
6. It is also helpful for background effects and color.

The researcher was entered all frames of programme material in the data files. Pictures and symbols from the Corel draw, front-page were used for construction of different formulas and graphical presentation of content which was needed for multimedia package. By using this graphics researcher was made an attempt for preparing the multimedia package more interesting.

The developed multimedia package was shown to two experts in the field of computer programming and multimedia package, for checking the mode of presentation, clarity of the graphics, contiguity and modality. The suggestions from the experts were in-corporate. The modified multimedia package was used for the experimentation.

Phase I – Designing of multimedia package

Using of the various packages like macromedia flash, coral draw, page maker, Sony sound recorder with the features of sounds, text, color and background investigator was developed the Package.

The Whole Package has been Divided in13 Frames and Each frame has contain Text, Sound, Colors, Background etc.

Phase II –Administration of pre-test

The study was conducted for 5days and before the investigation investigator was take pre-test. Duration of pre-test 35 minute.

Phase III- Implementation of multimedia package

Developed Multimedia Package was be implemented in Experimental Group. Five days investigator was teach multimedia package in computer lab. Two students was set gather on one computer. Duration of teaching one day two periods of 35 minute.

Phase IV- Administration of Post test

After the implementation of the developed Package investigator was be employed the post test

Phase V- Administration of Reaction Scale

After the implantation of the developed multimedia package investigator was employed the reaction scale

DEVELOPMENT OF CAI

For developing CAI, the investigator considered the English Grammar Points taught to Std .IX students. The investigator kept in mind the following objectives during the development of the CAI.

1) The students were able to read English by their own.
2) The students were able to translate English Stanza by their own.
3) The Students were able to give the meaning of all difficult words.
4) The students were able to learn English Grammar with interest.
5) The students were able to understand English Grammar easily.
6) The students were able to develop confidence in English Grammar.

The CAI was developed on the principals of programmed learning material (PLM). Developed program material has different small frames. Each frame contains one bit of contents of the topic. This content is followed by a questions and its answer related to the

presented content. This sequence of content followed by questions and answers is known as stimulus-response. This way the entire CAI was developed. This programme material was shown to two subject experts. for validating it in terms of the content of the subject and clarity of the language used in the material. The material was also given to the two experts in the field of programme learning for checking the systematic flow of instruction and the formation of frames. Finally, the suggestions given by the experts were incorporated.

After completion of the programmed material it were the programmed through the computer software for converting it into a CAI. For the purpose of programming, the researcher has chosen the FLASH, COREL-DRAW, DIRECTOR FRONT PAGE, PAGE MAKER software. The FLASH, COREL-DRAW, DIRECTOR, FRONT PAGE, PAGE MAKER were chosen because of the following characteristics.

1) It is windows based and user friendly
2) It permits the colorful figures, graphics and pictures that make the content interesting
3) Ease of simulation, and animation, which helps in easy understanding of content.
4) Provision for presenting for more than one window on screen at a time, which helps the researcher to present the text and figure at the same time.
5) It also helps for the narration
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The researcher has entered all frames of programme material in the data files. Pictures and symbols from the Corel draw, front-page were used for construction of different formulas and graphical presentation of content which were needed for CAI. By using this graphics researcher has made an attempt for preparing the CAI more interesting.

The developed CAI was shown to two experts in the field of computer programming and CAI, for checking the mode of presentation, clarity of the graphics, contiguity and modality. The suggestions from the experts were incorporated. The modified CAI was used for the experimentation.

DATA COLLECTION:-

The presenter has major 2 aspects; one aspect is to study the effectiveness of multimedia package. For this purpose single group pre-test and post-test design was followed. As per research design, an achievement test was administered twice, before the experiment as pre-test and after the experiment post-test with the help of computer.

Before the student started studying English through Multimedia package the investigator conduct pre-test. The students attempted the test and also got their doubts clarified. Investigator collected the scores of students when they completed the pre-test. The time by students for answer the test was thirty minutes.

Then investigator implemented the developed Multimedia Package 2 day after. All the students who had given pre-test were also given post-test and investigator had collected scores of individual students.

The researcher also administered reaction scales by computer on the students to collect their reaction on the developed Multimedia Package.

For the purpose of the objective no 3 i.e. to study the reaction of the students regarding development multimedia package. The investigator had constructed a reaction scale for the students. Investigator have given the useful instruction regarding how to fill up the reaction scale. An on average time taken for fill up reaction scale was 30 minutes.

DATA ANALYSIS

Collection data were analyzed using appropriate statistics techniques. To study effectiveness of developed multimedia package, Mean, Standard Deviation, Standard Error of difference and t-value were computed. To study the reaction of the students towards developed multimedia package frequencies and percentage were calculated.

FINDINGS

- Multimedia Package can use very well for remediation purpose.

- Prepared Multimedia Package in English was found effective in teaching English Grammar to 9th std. Students as the post-test score was found significantly more than pre-test score.
- The reaction of students towards the prepared Multimedia Package in English Grammar was found positive.

CONCLUSION

The study was conducted by the investigator has revealed that the Multimedia Package developed by the investigator on selected topics of English grammar of class 9th students was found effective in terms of achievement of the learners and their reactions. Such Software's need to be developed and widely deployed for the revival of English. Such attempts need to be made at a large scale at all levels of Education.

BIBLIOGRAPHY

Acharya, M.D. (2005). *Effectiveness Of Games, Work-Card And Self Instructional Material On English Language Learning*. Ph.D.(Edu.), Saurashtra University.

Adhikari , R. (1992). Development of computer aided instructional material on cell reproduction for class IX. In Goel, D.R (2000). Educational media in India. Delhi: Bharatiya kala prakasha.

Badiyani, I. M. (2008). Development and Comparison of the Effectiveness of Computer Assisted English Language Learning Package and Computer Aided English Language Learning Package. Ph. D.(Edu.), Saurashatra University.

Barot, H.(2009). Development and effectiveness of CAI in Sanskrit standard IX students. An unpublished Ph.D. thesis Vadodara:CASE. The Maharaja sayajirao University of Baroda.

Casanova, A. (2004). Conducted a study entitled *An analysis of computer media communication technologies as tool to enhance learning.* Dissertation Abstract International 65(12).

Crews, J.M. (2003). Helping poor readers : A study of computer assisted instruction. Retrieved from http//www.jcrews @cmi. Arizona.edu/.

Coulsom.M.(1976). *Sanskrit an introduction to the classical language*. Britain: Oxford University press

Das, A. (1998). Exploring effectiveness of computer assisted learning material on rhymes in different modes. An unpublished Ph.D. thesis, Vadodara: CASE, the M.S. University of Baroda.

Galvis, A. T. (2007) *Computer- assisted instruction (CAI) as teaching tool for occupational therapy education: A guide to understand CAI design and effectiveness.* (Ph.D Thesis, Texas Women's University,2007) Dissertation Abstract International, Vol.68, no.7, 2907-A.

Gilbert, D. W. (2006) Effectiveness of computer- assisted instruction blended with class-room teaching methods to acquire automotive psychomotor skill. (Ph.D. Thesis, Southern Illionis University at Carbondale,2006) Dissertation Abstracts International, Vol.67, no.8. 2907-A.

Hsu, J.J. (1994). Computer Assisted Language Learning (CALL) the effect of ELS students use of instructional modification on listing comprehension. Dissertation Abstracts International, Vol.55, no.4,p-851.

Jeyamani, P. (1991). *Effectiveness of simulation modes of teaching through CAI*. In NCERT (1992). Fifth Survey of Research in Education , New Delhi:NCERT.

Karia, L. H.(2001*). Effectiveness of Computer-Aided Learning (CAL) Programme As Selfstudy Technique*. Ph.D. (Edu.), Saurashtra University.

Khirwadkar,A . (1998).Development of Computer Software for Learning Chemistry at Std. XI. Unpublished Ph.D. thesis. CASE:MSU.

Kulkarni, S.S. (1996). a pioneer of educational technology in India. In ruhela, S.P.(1999). Essentials of educational technology. New Delhi : Indian publication distribution.

Maheta, H. B. (2007). *Development and Effectiveness of Computer Assisted Instruction Programme for Teaching of Adjective in English Language*. M.Ed., Saurashtra University.

M.H.R.D. (1968). National policy of education. New Delhi: government of India.

M.H.R.D. (1986). National policy of education. New Delhi: government of India.

NCERT. (1988). National Curriculum Framework 1988. New Delhi.

NCERT. (2005). National Curriculum Framework 2005. New Delhi.

NPE. (1986). National Policy of Education. New Delhi.

Patankar, S. (1978). Conducted a study on diagnostic and Remedial Teaching of English in standard VII and VIII. In M. B. Buch (Ed.) (1983). *Third Educational Research Survey in Education.* National Council of Education.

Patrikar, M. S. (1981). A linguistic Analysis of the Errors in Written English of students of B.A.Classes of Colleges in Urban Centers of Vidarbha. In M. B. Buch (Ed.) (1983). *Third Educational Research Survey in Education.* National Council of Education.

Ramamoorthy, V. (1992). Common spelling errors in English committed by std.VI students of matriculation schools and remedial teaching program. In Sharma, J. P. *Fifth survey of Research in Education*. New Delhi: NCERT.

Rathod, R.P. (2000) *Preparation and Try-Out of Programme Learning of Selected topic of Std-IX in English Grammar.* M.Ed., North Gujarat University.

Rathwa, M.(2007). Development and Implementation of Multimedia Package for Teaching Gujarati subject. An unpolished M.Ed. Dissertation. Vadodara: CASE The Maharaja Sayajirao University of Baroda.

Robins, T. (1985). In D. V. Jindal (2007). *An Introduction to Linguistics Language, Grammar and Semantics*. New Delhi: Prentice Hall Private Limited.

Robkob (1999). Achievement and Retention in science of prathom Suska 5 students in science studying through CAI. Retrieved from www.chinagmai.ac.th/abstract19992 6.html.

Rose Anotny Stela V.(1992). Effectiveness of computer- Assisted Instruction with special Reference to underachievers. Ph.D. Education Bharathidasan University. Fifth Survey of Rescarch in Education, New Delhi:NCERT.

Sakhiya, R. B. (2006). *Effectiveness work-card and programmed Learning as a Self-Learning Techniques With Reference To Teaching of English Grammar*. Ph.D. (Edu.), Saurashtra University.

Sharma,B.(2002). *Modern Methods of Teaching Sanskrit*. Sarup & Sons, New Delhi: Published by sarup & sons.

Sharma,D.(2003). A study of the effectiveness of computer Assisted Learning (CAL) in

Chemistry for the students of standard XI. An unpolished M.Ed. dissertation. Vadodara: CASE. The Maharaja Sayajirao University of Baroda.

Suwanma (1991). Construction of computer Assisted Instruction in sciences on topic "Earth and Changing" for Mathoyom Suska 2. Retrieved from http://www.chinagmai.ac.th

Vaisopha (1999). Construction of Computer Assisted Instruction in the Mathematics on topic 'Adding fraction' for prahom Suska 5 students. Retrieved from http://www.chinagmai.ac.th/abstract199921.htli/York: Bantam Books.

Yadav, S. (2000). A study of the effectiveness of the Computer Software for students of standard I. An unpublished M.Ed. dissertation. Vadodara: CAS. The Maharaja Sayajirao University of Baroda.

Zyoud, M. (1999). Development of Computer assisted English language teaching or VII standard students. An unpublished Ph.D Thesis. Vadodara: CASE. The M. S. University of Baroda.