

## **Developing a computerized study programme in Environment Education of Class IX and study its effectiveness - An Experimental Study**

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### **Abstract**

Environmental education is broad based and strongly related with basic principal of general education. It is unending topic requires systematic and special means of acquiring knowledge & generation of interest. The various models of teaching Environmental education have been useful in improving the quantity of education through different subject in different classed. Especially at elementary level even in the absence of the teacher such programme may help to maintain the interest and curiosity among the students and further developing environment based curriculum for universalization of elementary education.

It leads them over maintain a dynamic equilibrium between quality of life and environment.

**KEYWORDS:** Computer, development innovative, gain of knowledge, elements.

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### **Introduction:**

Environment is the essence of life. Human being are totally dependent on this Environment only which plays an important role in the going on the survival of human beings, it being a very vast and unending topic requires systematic and special means of acquiring knowledge and generation of interest. Till recently, Computers were used in India, mainly for storage and processing of data. It being a very fast and innovative media can be effectively used for the process of perception and learning and it can be very helpful for teaching, subject like Environment as it provides realistic 3D images in attractive manner. This will enhance student's interest towards the subject of environment and will help them to retain such knowledge for a long time.

### **Need of the research**

The total theoretical approach of the subject of Environment gives it a status of any other subject which loses its intention of spreading Environment awareness. It is a very interesting subject, but this theoretical approach leads the students to mug up the contents rather than understanding the same, hence leaving little scope of its applicability.

Today being a computer generation, Computer knowledge provides unlimited opportunities to let the students understand and to take interest in the subject of Environment. This will not only help the students to understands faster but also will help the teachers to foster fast and full participation in the subject. At middle and higher level of curriculum.

Environment being a very sensitive social subject requires full understanding as well as the interest of the students. Hence we require such teaching tools and techniques which will make this process of learning.

### **Topic of Research:**

“Developing a computerized study programme in Environment Education of Class IX and study its effectiveness - An Experimental Study”

### **Objectives of the Research:**

1. To carry out investigation for studying effectiveness of computerized programme of Environment on students of class IX.
2. To prepare a computerized programme of Environment Education of class IX syllabus.
3. To find the level of knowledge in students regarding Environment education.
4. To find out problems in teaching and learning of the subject of Environment Education of class IX, English Medium schools.

### **Basis Assumptions of the Research:**

1. Students need a more effective method of understanding the Environment subject.
2. Students are less interested in the subject and take it as other common subjects.
3. Teacher have problem in teaching the practical portion of the subject which involve reaction, processes etc.
4. Teacher of Environment uses only test book method for teaching the subject of Environment to the students.
5. Teacher is unable to solve the queries of students regarding typical Environmental process.
6. Students gain comparatively less marks in the subject of Environment in Examination.
7. Students of Class IX show lesser interest to the Subject of environment.

### **Scope and Limitations of the Research:**

1. Research will limit to South Nagpur Dist. Nagpur Only.
2. Research will on conducted on School Level of Std. IX
3. Research will include Private schools only.
4. Reseach will be based on the syllabus of Std. IXth Syllabus of Environment Studies.
5. Reseach will conduct in English medium schools only.
6. Reseach will be carried only in Co-Education schools.

### **Research Methodology**

The basic method of present research is experimental. The present research conducted on the students of class IX and divided into two group's i.e.

#### **Groups in Research**

#### **Control Group**

The group of students of that School where research is conducted And taught by the same old way.

#### **Experimental Group**

the group of students of that school where research is conducted And taught about the subject through a computer programme.

**Table Showing Total No. of Students of STD IX in both the schools**

Sr. No.	Name of School	Total No. of Students in Std. IX	Students In Experiment Group	Students In Control Group
1.	Shri Radhe High school, Balaji Nagar Nagpur-24	54	27	27
2.	Adarsh Sanstha High School, Hasanbagh, Nagpur-9	46	23	23

**Sources of Data Collection:**

Primary : Questionnaires, tests, sampling  
 Secondary : Books, Websites etc.

**Population:**

All the schools of English Medium Pattern in South Nagpur, Dist. Nagpur are considering as populations.

**Sample of Research:**

The present research carried in two English Medium schools in South Nagpur, Dist. Nagpur a group of students of Std. IX used as experimental group from both the schools. Two Group of students of Std. IX as experimental group from both the schools and two groups among the students of each school which is equal in number and competence. One group used the experimental group and other is the control group.

**Tools used during the research:**

1. A Computerized programme developed on the basis of the syllabus of Std. IX of Maharashtra Board Pattern.
2. Two identical class tests to know the level of knowledge of students of experimental group and control group before and after the experiment.
3. A pre experiment Questionnaire for checking of prior knowledge among the students regarding Environment and related aspects.
4. A post experiment Questionnaire for checking the computerized teaching on the students of experimental group.

**Collection of data:**

1. Distribution of pre experiment questionnaire among the students of class IX of the two schools and collection of the same to know the present level of Environmental knowledge in them.
2. Collection of test papers provides to the students of experimental group to check their interest and increment in the level of knowledge in between the experiment.

**Analysis of Research Data**

Statistical methods on the basis of collection of data through above said tools to carry out mean, standard deviation, t value. The present research is checked on the reliability criteria of .05 and .01 with 0 assumptions based on the t value obtained by the statistical calculations. Then the positive points and conclusions were carried out accordingly.

**Conclusion:** The computerized programme based on the concept attainment model has its place in increasing the environment awareness of elementary students. The students

taught by traditional model have not shown any significant gain regarding environment awareness.

After the Interpretation and Analysis of the Collected data following conclusions are drawn:

1. Before experiment the knowledge of the students of the both the Experimental Group as well as the Control Group regarding the subject of Environment was same.
2. The scores obtained by the students of the control group in the pre-Experiment and post-Experiment test are almost same because while teaching them the content, no special technique was used and it was taught with the older method only.
3. There is a significant difference between the scores obtained by the students of the experimental group in the Pre-experiment and Post-Experiment Test taken.
4. The test scores obtained by the students of the Experimental Group and the Control Group in the Post-Experiment test have vast difference because while teaching the content of Control Group no special method of technique was used but while teaching content to Experimental Group a computerized programme was used.

Hence it is concluded that to teach the subject of Environment, method like computerized programme will definitely prove to be efficient and will lead to better results.

#### **Educational Implications:**

The study provides an excellent evidence of the effectiveness of intrinsically computerized programmed material for teaching the concepts of Environment Science Generally, students become unable to understand the phenomenon just because they have not understood the basic concepts behind it. By using such type of material, teachers can improve the understanding and knowledge of the students not only in EVS but also in other subjects. Even in the absence of the teacher such programmes may help to maintain the interest and curiosity amongst the students.

#### **Suggestions & Recommendations:**

1. Teachers should be given adequate training to use various types of devices in order to enhance teaching quality.
2. Teachers should be encouraged to develop various other techniques which will lead to quality in education.
3. Students should also be encouraged to develop various models of EVS for better learning.
4. Subject Teachers should be provided with necessary equipments like Sliders, Computers etc.
5. Teachers of Environmental Science & Education should take the help of computerized techniques in regular teaching.

In this way, if teachers will use different techniques with consistency and stability, at Std. IX level but also at other levels for the subject like Environment, there will be a definite improvement in the teaching - learning process as it is clearly seen from the difference of scores obtained by the experiment group in pre-Experiment and Post -

Experiment tests. Not only for the subject of Environment but also for other similar kind of subjects, has this technique definitely proved to be helpful.

**Suggestions for Further Researches:**

1. It will be useful to conduct a similar type of research on a large sample of both urban and rural locality.
2. Similar type of experimental researches can be carried out to check the efficiency of specially generated computerized programmes in other subjects also.
3. Similar type of researches can be carried out by changing the variable factors to study the effectiveness of such programmes in the light of variables like, sex, and age, social background etc.

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