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A STUDY ON VISUALIZATION APPROACH EFFECT ON ATTITUDE TOWARDS SOCIAL SCIENCE AND PROCESS SKILLS IN SOCIAL SCIENCE

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ABSTRACT :

The present study intended to find out the effectiveness of Visualization approach in Social Science on attitude towards Social Science and process skills in Social Science of secondary school students. There is a need for the teacher to be aware of other process skills mentioned in the Social Science literature. These include hypothesizing, experimenting, inferring and concluding. The investigators adopted an experimental design for the study. A sample of 70 students from standard IX was selected for the study. Adequate tools were used for collecting the data. The results revealed that the visualization approach was well suited for enhancing the attitude towards Social Science and process skills in Social Science of secondary school students.

KEYWORDS : *Visualization approach, Attitudes, Process skill etc.*

1.INTRODUCTION

Education is very much intimate with the individuals' process of growth. It is a continuous re-organisation or re-construction of the individual life experience. Since the basic natural Social Science is the fountain head of knowledge for the applied Social Sciences, its importance to the technological process of civilization is well established. Similarly, Social Science has crucial contribution to the preservation of the planet earth which is capable of supporting and nurturing life. There has been concern not only that the natural Social Sciences be given a role in the school curriculum that is commensurate with their contributions to our lives, but also that the approach to scientific study in the schools reflect the nature of scientific study in both natural and applied Social Sciences. There is an urgency today that makes acquiring Social Science skills even more important now than they were in earlier years. In this technological age, knowing how to acquire and evaluate information and know how to use it to understand and solve problems is a pre-requisite for most jobs our students will have as adults. Process skills in Social Science are very important in teaching Social Science to children. If the children are introduced to Social Science properly will find the process skills useful throughout life. Process skills tend to remain with many individuals for a relatively longer period. Process skills in Social Science for children emphasize the use of our five sense organs. Today there is a shift of emphasis on the mastery of the subject through the acquisition of skills in the process of how knowledge is gained has been generally accepted. Bunsen (1968) conducted study on comparison of methods of Social Science using process approach. The results showed that the students exposed to the Visualization approach method scored significantly than the students who were unexposed to that method. Vandana (2010) investigated the effect of

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visualization approach on intelligence, reading comprehension and interest in Social Science and reported about the effectiveness of visualization approach in enhancing the level of intelligence, interest of students. The reading ability was also found to be increased by this approach.

2. OBJECTIVES OF THE STUDY
a. To compare the mean pre-test scores and post-test scores of attitude towards Social Science of the experimental and control group.
b. To compare the mean pre-test scores and post-test scores of process Skills in Social Science of the experimental and control group.

1. METHOD:
Two intact classes were selected from one school. The investigator selected 35 students each from two classes randomly and assigned one as the experimental group and other as control group. The pre-test post-test equivalent group design was selected for the study.

Tools:
Lesson Transcript for Visualization Approach Model of Teaching; Lesson Transcript based on Constructivist Model of Teaching; Achievement Test in Biology of STD IX Pupils; Classroom Environment Inventory; Socio-Economic Status Scale; Standard Progressive Matrices Test by Raven; Test of Process Skills in Social Social Science for the Secondary School Pupils; and Scale of Attitude towards Social Social Science.

Lesson Transcripts for Visualization Approach Method of Teaching:
Lesson transcripts for Visualization approach method of teaching have prepared by the investigator on the basis of process skill oriented method. The steps in the lesson transcript were: Goals; Objectives; Pre-requisites; Materials/Resources; Lesson description; Lesson Procedure; and Assessment / Evaluation.

Lesson Transcript for Constructivist Method of Teaching :
Lesson transcript for constructivist method of teaching have prepared by the investigator on the basis of teacher centered curriculum prevailing in the present secondary school classes. The steps in the lesson transcript were: Curriculum objectives; Learning materials; Development; and Follow up activities

Statistical Techniques Used:
The statistical techniques used were: Arithmetic mean; Standard Deviation; and Test of Significance of difference between means

Execution of the Experiment:
For testing the homogeneity of the sample, the investigators administered the test of intelligence, Socio-Economic Status Scale, Classroom Environment Inventory and Achievement Test. After analysing the results, the homogeneity of the two groups were ensured. Then randomly selected 35 students from the total sample and assigned as experimental group and another 35 students were assigned as control group. For checking the initial status of Attitude towards Social Science and Process Skills in Social Science a pre-test was conducted. After that the two groups were taught by one of the investigators, experimental group by Visualization Approach method and control group by constructivist method. 30 lesson plans were taught for the two groups. After the experimental treatment, post test for the two dependent variables was conducted.

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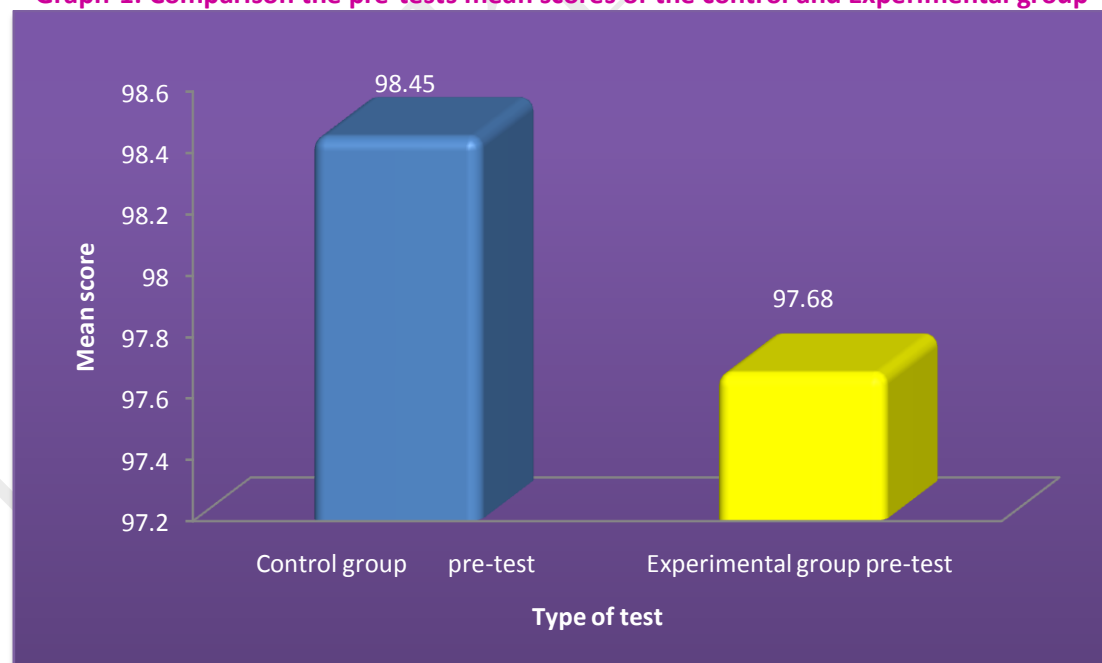
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2. ANALYSIS:

2.1. Comparison of the Mean Performance on the Pre-test Scores of Attitude towards Social Science:

Table-1: The-pre tests mean attitudinal scores of the control and Experimental group

Test	No of students	Mean	S.D	Mean difference	't' value	Degrees of freedom	Level of significance (0.05 level)
Control group pre-test	35	98.45	6.784	0.213	0.197	68	Not significant
Experimental group pre-test	35	97.68	8.571				

A pre-test on Attitude towards Social Science test was administered to pupils in order to compare the pre-test on Attitude towards Social Science of the two groups of STD IX. The scores obtained in both the experimental and control group were subjected to a test of significance of the difference between means of the groups. The obtained t-value (0.197) is below the limit set for 0.05 level of significance (1.96). So it can be noted that there is no significant difference in the mean scores of Attitude towards Social Science of experimental and control group. In the comparison, the two groups are almost equal in their Attitude towards Social Science.

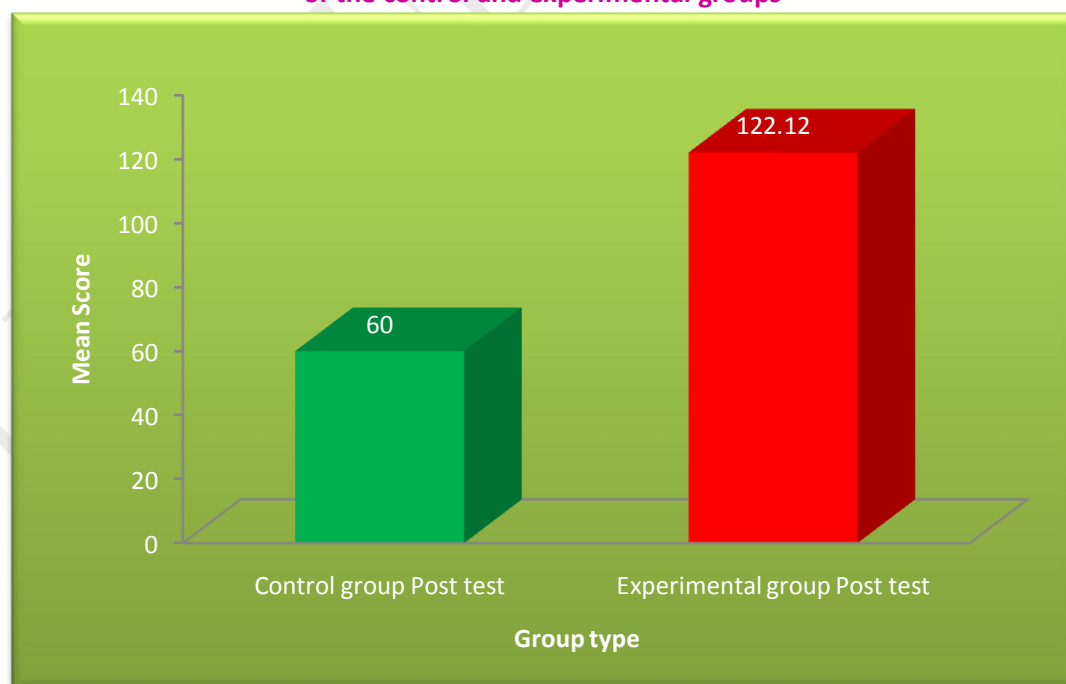**Graph-1: Comparison the pre-tests mean scores of the control and Experimental group**

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2.2. Comparison of the Mean Performance on the Post-test Scores of Attitude towards Social Science:

Table-2: Mean Performance on the Post-test Scores of Attitude towards Social Science of the control and experimental groups

Test	No of students	Mean	S.D	Mean difference	't' value	Degrees of freedom	Level of significance (0.05 significance level)
Control group Post test	5	0.00	.342	2.12	9.42	8	Significant
Experimental group Post test	5	22.12	.451				

A post-test on Attitude towards Social Science test was administered in order to compare the Attitude towards Social Science of the two groups of STD IX. The scores obtained in both the experimental and control group were subjected to a test of significance of the difference between means of the groups. The obtained t-value (19.42) is above the limit set for 0.05 level of significance (1.96). So it can be noted that there is significant difference in the mean scores of Attitude towards Social Science of experimental and control group. In the comparison, the higher the mean scores are seen associated with experimental group. This indicates the superiority of experimental group over the control group in the case of Attitude towards Social Science.

Graph-2: Comparison of the mean Performance on the Post-test Scores of Attitude towards Social Science of the control and experimental groups
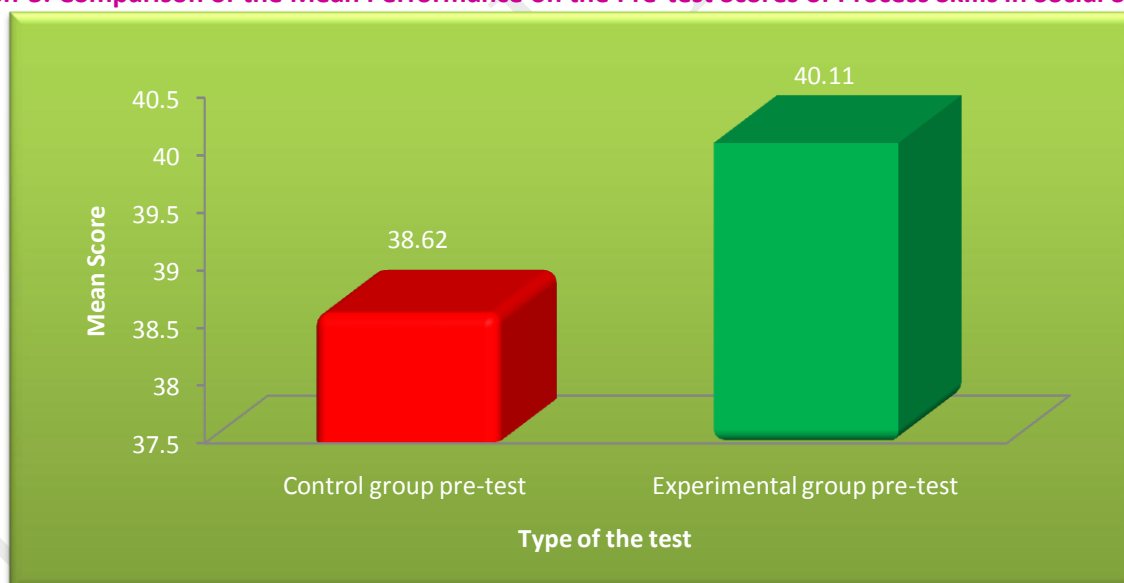
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2.3. Comparison of the Mean Performance on the Pre-test Scores of Process Skills in Social Science:

Table-3: The Mean Performance on the Pre-test Scores of Process Skills in Social Science of the control and Experimental group

Test	No of students	Mean	S.D	Mean difference	't' value	Degrees of freedom	Level of significance (0.05 level)
Control group pre-test	35	38.62	4.144				
Experimental group pre-test	35	40.11	5.432	1.49	0.342	68	Not significant

A pre-test on Process Skills in Social Science was administered to pupils in order to compare Process Skills in Social Science of the two groups of STD IX. The scores obtained in both the experimental and control group were subjected to a test of significance of the difference between means of the groups. The obtained t-value (0.11) is below the limit set for 0.05 level of significance (1.96). So it can be noted that there is no significant difference in the mean scores of Process Skills in Social Science of experimental and control group. In the comparison, the two groups are almost equal in their Process Skills in Social Science.

Graph-3: Comparison of the Mean Performance on the Pre-test Scores of Process Skills in Social Science

2.4. Comparison of the Mean Performance on the Post-test Scores of Process Skills in Social Science:

Table-4.9: The Mean Performance on the Post-test Scores of Process Skills in Social Science of the control and experimental groups:

Test	No of students	Mean	S.D	Mean difference	't' value	Degrees of freedom	Level of significance (0.05 level)
Control group Post test	35	32.48	3.542				
Experimental group Post test	35	68.46	4.512	35.98	16.72	78	Significant

A post-test on Process Skills in Social Science test was administered to pupils in order to compare the Process Skills in Social Science of the two groups of STD IX. The scores obtained in both the experimental and control group were subjected to a test of significance of the difference between means of the groups. The obtained t-value (16.72) is above the limit set for 0.05 level of significance (1.96). So it can be noted that there is significant difference in the mean scores of Process Skills in Social Science of experimental and control group. In the comparisons, which have shown, significant t-value the higher the means scores are seen associated with experimental group. This indicates the superiority of experimental group over the control group in the case of Process Skills in Social Science in the post-test.
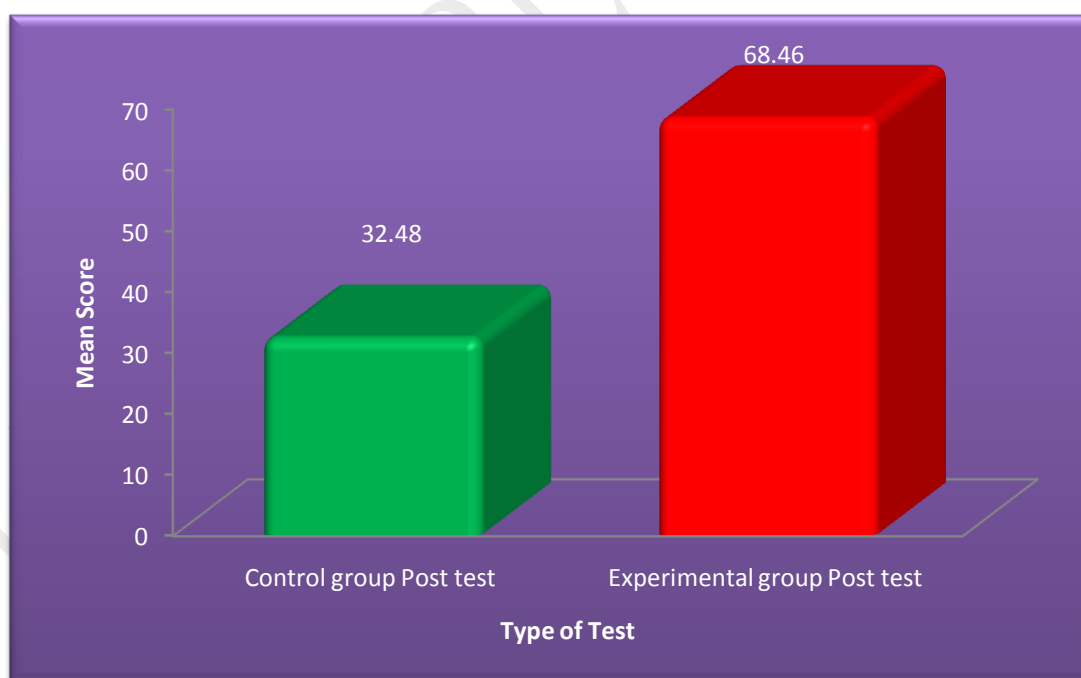
3. CONCLUSION:

There is significant difference in the mean scores of experimental and control group for the two variables, Attitude towards Social Science and Process Skills in Social Science. At initial status, there was no significant difference in the mean scores of pretest of Non-Verbal Intelligence, Classroom Environment

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Inventory, Socio-Economic Status and Achievement in Social Science. From the findings, it is evident that the Visualization Approach in Social Science is superior to the constructivist model of teaching for increasing Attitude towards Social Science and Process Skills in Social Science. The new approach helps the teacher to increase his/her knowledge about the outcome of teaching. In ordinary classroom leaching model, there may not been much emphasis on the development of process skills. The skill which are developed, really help students to nurture a new world in their learning approach. They Feel more close to nature in their learning approach.. Teachers need to select curricula which emphasize Social Science process skills. In addition they need to capitalize on opportunities in the activities normally done in the classroom.

4. EDUCATIONAL IMPLICATIONS:

The present study revealed that the visualization approach teaching is effective for proper development and understanding of process skills in Social Science and also to develop or increase the attitude toward Social Science. Though the investigators carried out these studies on a small sample, the findings throw light on the current educational practice in secondary classes. Social Science is a process as well as a product. The understanding of this process is possibly only when the individual will get thorough knowledge about the skills involved in each process. Without the understanding of skills, one cannot follow or study about the scientific process. So the students have to be trained for better understanding of skills. The teacher has a pivotal role in administering changes among children. The approach used by the teacher, therefore, should be to bring a desirable change in the student. It is seen that the positive attitude towards Social Science is essential for each individual to live a harmonious life in the nature. The attitude developed by the student, therefore, is beneficial for both the individual and to the existence of nature. Teachers should help the children to develop a desirable scientific attitude.

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