

## EFFECTIVENESS OF MAP READING SKILLS AMONG THE STUDENTS OF CLASS X

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### **Abstract**

*The present study was an attempt to study the map reading skills of the students of X standard. To study the selected problem, the researcher used experimental method of research and pretest-post test experimental design was used. The sample selected for the study was 40 X standard students from a higher secondary school in Madurai. The tool used for the research was self-constructed by the researcher. Mean, standard deviation, 't' test and gain ratio were used to analyze data. Findings of the study stated that there was effectiveness in the map reading skills of students of class X.*

**Keywords:** *Effectiveness, Map reading, students of class X*

### **Background of the Problem**

Map skills stand at the core of social science education. Map reading and map reading, however, do not enjoy similar attention and consideration in social science classrooms. But the skill of school students is not up to the mark since they make a number of mistakes when they are asked to mark a state or country or city or any reign in history. Similarly, when the students appear for the final exams they find it difficult to go through the map and remember them. Hence, there is a real need for the present study at this onset.

### **Need and Significance of the Study**

One of the central coordinates of social science is represented by map-related skills. Therefore, both cartography and teaching map skills are part of every program that trains future social science teachers. Map skill acquisition, however, starts at a much earlier age as formal social science education does. Teachers should foster learners to perceive, understand, and construct mental representations of the physical space starting from the local scale of the home environment and ranging to the global scale. These representations facilitate both the best possible adaptation to the environment they live in and an efficient and balanced use of resources. To do so, teacher is expected to have, on one hand, highly developed map skills, and on the other hand, pedagogical knowledge to facilitate map skill acquisition.

### **Objectives of the Study**

- to find out the gain scores of control group and experimental group in map reading
- to measure the significant difference in the pre-test and post-test scores of control group and experimental group in map reading

**Hypothesis of the Study**

Hypotheses of the present study are framed as follows,

1. There is no significant difference in the gain scores of control group and experimental group in map reading.

**Method of Research and Research Design**

Experimental research was used as the method of research. Two group pre-test – post-test experimental designs is selected to carry out the present study. The students in class X were divided into two groups namely control group and experimental group. 40 students were divided into two groups consisting of 20 students in each group. Two groups were selected based on their achievement scores in social science in the monthly examination which was obtained from the class teacher. All category of students were present in the group namely, high, average and low achievers.

**Tool Used for the Study**

A separate question paper on map reading was prepared by the researcher to evaluate the student's performance. The places for map reading were taken from the syllabus of X standard social science prescribed by the government of Tamilnadu. The researcher set the question paper for 25 marks.

**Validity and Reliability of the Tool**

The questions paper constructed by the researcher was given to experienced social science teachers to establish validity and reliability.

**Sample of the Study**

The sample of the present study included 40 high school students from a higher secondary school in Madurai.

**Sampling Technique**

The sampling technique used for the present study is purposive sampling.

**Data Analysis and Interpretation**

The collected data were analyzed to arrive at the findings of the research. The findings of the research are tabulated as follows,

## Percentage Analysis

**Table I**

Attainment Level	Pre-test				Post-test			
	Control Group		Experimental Group		Control Group		Experimental Group	
	N	%	N	%	N	%	N	%
Low	3	15	3	15	2	10	0	0
Average	13	65	11	55	10	50	7	35
High	4	20	6	30	8	40	13	65
Total	20	100	20	100	20	100	20	100

The attainment level of students in map reading is found based on the pre-test and post-test scores. The percentage of high attainment level of experimental group in post-test (65%) is more than the pre-test (30%). From this it can be evident that the map reading instruction is more effective on the performance of students.

## Inferential Analysis

**H<sub>01</sub>** - There is no significant difference in the gain scores of control group and experimental group in map reading

**Table 2: Significance of difference between the mean of Gain scores of control group and experimental group in map reading**

Gain Score	N	Mean	SD	't' Value	Significance
Control Group	20	3.8	1.85	2.43	Significant
Experimental Group	20	9.65	2.94		

From the table, it can be inferred that the obtained 't' value 2.43 is greater than the table 't' value 1.96 at 0.05 level of significance. From this, we can state that there is significant difference in the gain score of the control group and experimental group. Hence the null hypothesis, "There is no significant difference in the gain scores of control group and experimental group in map reading" is rejected.

From this, it can be interpreted that the significant difference in the gain score of control and experimental group is because of the effectiveness of the instruction given to the students on map reading. It can also be stated that the performance of the students in the experimental group is better than the performance of the students in the control group.

## Findings

From the above table, the findings of the study can be stated as follows,

1. There is significant difference in the gain scores of control group and experimental group in map reading.

### **Educational Implications**

1. The students can be asked to measure the distance between two points on the map.
2. The students can be used to use the index and locate some obscure place or point on a detailed map.
3. The students can be trained to give the latitude or the longitude of any place on the globe.
4. The students can be used to find maps that show topography, rainfall and density of population.
5. The students can be trained to sketch from memory any country, state that they knew.
6. Ask the students to use variety of depictions, they are using directions, using distance, using area, using colours, using symbols.
7. Students can be trained in map reading by the teacher through regular practice
8. The teacher can use the map when teaching the students to mark specific locations on the map.
9. Home assignments and projects can be given to the students on map reading.
10. The teacher during instruction can ask the students to come forward and point out the specific location on the map.

### **Conclusion**

In the present scenario, the students are unaware of the importance of map reading. Map reading not only helps the learner to learn about the important places, it throws light over the history of our nation and the variety of resources of our nation and the world. So the knowledge of map reading has to be insisted on students. It is the role and responsibility of the social science teacher to teach the students with the skills of map reading so that they become well equipped.

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