

A study of the effectiveness of difficulties encountered in map reading by student teachers in teacher training schools.

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Abstract

Educational research began in England in the nineteenth century. In this research more importance was given to psychological research. Since then many researchers have taken their research work forward academically. The researcher used experimental research method in this research while studying the problems faced by the students in map reading. Through this method, remedial teaching was done to the student teachers on the basis of scale, projection, direction, Symbols and signs and Latitude and longitude. Demonstration work given. This marked a positive change in their map reading. Mean, standard deviation, standard deviation and t-test are used to determine this. Its conclusion can be stated as follows. This means that the calculated 't' value is much more than the calculated value so the research hypothesis, the students can read the maps accurately after implementing the measures developed by the researcher means that t is acceptable.

Keywords: Map reading, Scale, Projection, Direction, Latitude and longitude

I

Introduction

Educational research was first started in Western countries like England and America. In 1896 England Board of Education started psychological research. In 1905, Binet researched the measurement of intelligence. In the year 1916-17, Terman brought reforms and the foundation of educational research was laid. The goal of education is to create ideal citizens. To achieve this goal the necessary skills should be developed in the student teachers so the student teachers in the teachers' training schools must study the subject of geography which is very closely related to human life. The basic needs of human life include food, clothing, shelter, education, health and recreation. All these things are studied in geography.

The present era is known as the era of technology and competition, progress and of course, as the conflict between humans and the environment on the earth begins, the study of maps becomes important to the study of geography to study the various parts of the new geography. Because the map is the most effective tool in teaching geography. Anyone studying geography must know maps. But map reading has become an important problem in today's teaching. Human life depends on the environment. It is necessary to study geography at the teacher's training college level so that the tendency to use this knowledge to enjoy life is created in the students and so that the study done scientifically and creatively will be useful for them in the future life.

It is necessary to develop observation skills in students through geography. Map reading is a very important and interesting part of geography. Alternatively, students fear it and make mistakes, so it is necessary to study it. A map is the soul of geography. 90% of geography is studied based on maps. That is why in the teacher's training school D.T.Ed. A detailed study of the geography subject for the second year in the curriculum through maps will provide quality education at the primary level. From this point of view, the researcher has chosen the study and solution of this problem in map reading of the teacher education diploma student teacher as it is important for the research.

As the subject of geography is very important to study in daily life, it can be interestingly explained to children. One can travel the world from the own place through the map. Map reading is a very important part of Geography subject. Second-year student teachers make mistakes during the practical work of geography. Also in geography teaching, there was an awareness of the need to achieve more quantitative proficiency in map reading skills. Therefore, if the students become friends with the map in geography at the primary level, they will have the hobby of looking at the map instead of looking at the map, so the researchers think it is important to conduct research based on this topic in the pre-service trainees who are required to serve at the primary level.

Objectives

1. To find out the difficulties faced by student teachers in map reading in teacher training college.
2. Teaching the map.
3. Taking action to solve problems.
4. To verify the effectiveness of activities.
5. Checking the accuracy of editing.

Research Methods

Considering the objectives of the presented research topic, data collection tools and field, the researchers have adopted the experimental research method. Like all other educational research, the basic purpose of the experimental research method is to find out the dissatisfaction with the prevailing particular educational conditions and to try to remove that dissatisfaction through research.

Experimental Methods

The experiment method is an actual attempt to find solutions to present problems and reduce their magnitude and severity in the future. In the experimental research method, researchers focus on the future. Research continues to be a problem when working within our field of expertise. To reduce them, to reduce their intensity and to reduce their quantity, some measures have to be carefully considered. The researcher has to try to bring about the desired behavior change without harming the subject intellectually, emotionally, physically, or in any other way by any part of the experiment. At the same time, after planning the entire experiment, before starting the actual experiment, by conducting a guided study for small groups, the necessary changes can be made in the planning and action on the actual sample, and the actual sample can be processed more fully.

Experimental Design

Considering which design would be the best for the present research, the control of variables, group design, experimental materials, experimental methods, duration, measurement methods, etc. were considered and the researcher chose the single group design among the different types of functional design in the experimental method, functional and constitutional design.

Single Group Design

In a single-group design, only one group is selected for the experiment. This group is given the same test on two separate occasions and conclusions about the experimental measure are drawn based on the difference. In this design, there are two groups, an experimental group and a control group, one group undergoes two different procedures and the differences between these different procedures are examined. The outline of this design is as follows.

Diagnostic Test

The word clinical is popularized from the word to diagnose. The word diagnosis is widely used in medicine and has importance in pathology and prognosis. Diagnosed and suggested treatment. In the field of education, students are expected to change their behavior through teaching and learning, but sometimes such behavior changes do not happen. The reasons behind it have to be found. A clinical test is a test to find out the difficulties, shortcomings and defects in the progress of the students in teaching.

Remedial Program

A remedial program is a program implemented to find out the problems faced by the students in their studies and eliminate them. 1. The environment, financial, emotional and social status of the students have to be considered. 2. According to the nature of the problem, the students have to be grouped and treated. 3. The help of intelligent students in the class can be taken for the treatment. 4. A remedial program requires the creation and coordination of various educational materials.

Acquisition Test

These tests measure how well a student or class has achieved the course objectives. That test is called the acquisition test. These tests are based on the curriculum and their main purpose is to measure the acquisition of the student after the teaching of its particular component. This test is mainly used to check cognitive level objectives. The acquisition test comes more concerning teachers. Acquisition tests broadly measure the effect of education on logical thinking, clinical evaluation of conclusions, problem-solving skills, and imagination.

Actual Procedure

In exploring what skills are involved in map reading skills, it is important to first explore the various appendages of a map. The aspects of the map from it are as follows.

1. Scale, 2. Projection, 3. Direction, 4. Symbols and signs, 5. Latitude and longitude sample selection

Population

The sample is selected by the researcher. Such a whole is population. A population is a group of individuals or things that have the same characteristics as a sample. The conclusions drawn by the researcher from the sample also apply to the population because of the same characteristics. Population can also be finite or infinite. The population of the present study consists of second-year student teachers in a teacher training college in Maharashtra.

Sample

In the present research, 50 second-year student teachers of Abhinav Adhyapak Vidyalaya Akole have been selected. This sample is selected by a simple random method.

Pearson correlation coefficient Method Table

Table No. 1: Tables showing the Pearson correlation coefficient Method.

| Sr. No. | Pre-test Score | Post-test Score | Deviation from the Mean | | Square of Deviation | | Product of Standard Deviation |
|---------|----------------|-----------------|-------------------------|-------|---------------------|-------|-------------------------------|
| | X | Y | X-M1 | Y-M2 | X | Y | XY |
| 1 | 13 | 24 | -1.36 | 2.04 | 1.85 | 4.16 | 2.77 |
| 2 | 12 | 23 | -2.36 | 1.04 | 5.57 | 1.08 | 2.45 |
| 3 | 10 | 20 | -4.36 | -1.96 | 19.01 | 3.84 | 8.55 |
| 4 | 13 | 23 | -1.36 | 1.04 | 1.85 | 1.08 | 1.44 |
| 5 | 14 | 24 | -0.36 | 2.04 | 0.13 | 4.16 | 0.73 |
| 6 | 15 | 21 | 0.64 | -0.96 | 0.41 | 0.92 | 0.61 |
| 7 | 16 | 22 | 1.64 | 0.04 | 2.69 | 0.00 | 0.07 |
| 8 | 17 | 24 | 2.64 | 2.04 | 6.97 | 4.16 | 5.39 |
| 9 | 12 | 23 | -2.36 | 1.04 | 5.57 | 1.08 | 2.45 |
| 10 | 18 | 24 | 3.64 | 2.04 | 13.25 | 4.16 | 7.43 |
| 11 | 13 | 21 | -1.36 | -0.96 | 1.85 | 0.92 | 1.31 |
| 12 | 10 | 20 | -4.36 | -1.96 | 19.01 | 3.84 | 8.55 |
| 13 | 14 | 24 | -0.36 | 2.04 | 0.13 | 4.16 | 0.73 |
| 14 | 15 | 23 | 0.64 | 1.04 | 0.41 | 1.08 | 0.67 |
| 15 | 20 | 25 | 5.64 | 3.04 | 31.81 | 9.24 | 17.15 |
| 16 | 19 | 24 | 4.64 | 2.04 | 21.53 | 4.16 | 9.47 |
| 17 | 17 | 23 | 2.64 | 1.04 | 6.97 | 1.08 | 2.75 |
| 18 | 18 | 24 | 3.64 | 2.04 | 13.25 | 4.16 | 7.43 |
| 19 | 13 | 23 | -1.36 | 1.04 | 1.85 | 1.08 | 1.41 |
| 20 | 12 | 22 | -2.36 | 0.04 | 5.57 | 0.00 | 0.09 |
| 21 | 10 | 20 | -4.36 | -1.96 | 19.01 | 3.84 | 8.55 |
| 22 | 14 | 24 | -0.36 | 2.04 | 0.13 | 4.16 | 0.73 |
| 23 | 15 | 25 | 0.64 | 3.04 | 0.41 | 9.24 | 1.95 |
| 24 | 16 | 20 | 1.64 | -1.96 | 2.69 | 3.84 | 3.21 |
| 25 | 17 | 23 | 2.64 | 1.04 | 6.97 | 1.08 | 2.75 |
| 26 | 18 | 24 | 3.64 | 2.04 | 13.25 | 4.16 | 7.43 |
| 27 | 19 | 25 | 4.64 | 3.04 | 21.53 | 9.24 | 14.11 |
| 28 | 13 | 22 | -1.36 | 0.04 | 1.85 | 0.00 | 0.05 |
| 29 | 14 | 21 | -0.36 | -0.96 | 0.13 | 0.92 | 0.35 |
| 30 | 11 | 20 | -3.36 | -1.96 | 11.29 | 3.84 | 6.59 |
| 31 | 10 | 20 | -4.36 | -1.96 | 19.01 | 3.84 | 8.55 |
| 32 | 15 | 21 | 0.64 | -0.96 | 0.41 | 0.92 | 0.61 |
| 33 | 17 | 23 | 2.64 | 1.04 | 6.97 | 1.08 | 2.75 |
| 34 | 18 | 24 | 3.64 | 2.04 | 13.25 | 4.16 | 7.43 |
| 35 | 19 | 24 | 4.64 | 2.04 | 21.53 | 4.16 | 9.47 |
| 36 | 21 | 25 | 6.64 | 3.04 | 44.09 | 9.24 | 20.19 |
| 37 | 12 | 23 | -2.36 | 1.04 | 5.57 | 1.08 | 2.45 |
| 38 | 14 | 24 | -0.36 | 2.04 | 0.13 | 4.16 | 0.73 |
| 39 | 10 | 20 | -4.36 | -1.96 | 19.01 | 3.84 | 8.55 |
| 40 | 9 | 18 | -5.36 | -3.96 | 28.73 | 15.68 | 21.23 |
| 41 | 8 | 17 | -6.36 | -4.96 | 40.45 | 24.60 | 31.55 |
| 42 | 14 | 20 | -0.36 | -1.96 | 0.13 | 3.84 | 0.71 |
| 43 | 15 | 21 | 0.64 | -0.96 | 0.41 | 0.92 | 0.61 |
| 44 | 16 | 21 | 1.64 | -0.96 | 2.69 | 0.92 | 1.57 |

| | | | | | | | |
|----------------|----|-----------------|-------|-------|-------------------------|-------------------------|--------------------|
| 45 | 17 | 22 | 2.64 | 0.04 | 6.97 | 0.00 | 0.11 |
| 46 | 15 | 20 | 0.64 | -1.96 | 0.41 | 3.84 | 1.25 |
| 47 | 13 | 20 | -1.36 | -1.96 | 1.85 | 3.84 | 2.67 |
| 48 | 10 | 19 | -4.36 | -2.96 | 19.01 | 8.76 | 12.91 |
| 49 | 11 | 18 | -3.36 | -3.96 | 11.29 | 15.68 | 13.31 |
| 50 | 12 | 17 | -2.36 | -4.96 | 5.57 | 24.60 | 11.71 |
| $\Sigma X=714$ | | $\Sigma Y=1098$ | | | ΣX^2 =484.10 | ΣY^2 =234.08 | $\Sigma XY=316.85$ |

Table No. 2: Tables showing Statistics Dimension.

| Sr. No. | Statistics Dimension | Pre-test | Post-test |
|---------|---|----------|-------------|
| 1 | Number of students in group | $N_1=50$ | $N_1=50$ |
| 2 | Pretest mean | 14.28 | 21.96 |
| 3 | Standard deviation of pre-test | 3.11 | 2.16 |
| 4 | Error as | 0.439 | 0.305 |
| 5 | The standard error of difference between the two tests is | | 0.502 |
| 6 | Correlation coefficient | | $r = 0.941$ |
| 7 | Value of 't' | | 9.77 |

Analysis

49 The degree of freedom at this significance level was found as follows. 2.68 at 0.01 level and 2.01 at 0.05 level. Mean poll calculated 't' value 9.77 Determined 't' value 2.68 at 0.01 level and 2.01 at 0.05 level Calculated 't' value 9.77 determined at 0.01 level in table 't' value for independence quantity 49 is 2.68, while 0 2.01 at the .05 level. This means that the calculated 't' value is much more than the calculated value so the research hypothesis, the students can read the maps accurately after implementing the measures developed by the researcher means that t is acceptable.

Conclusion

Students need to have a good understanding of the basic elements of a map to read maps. Students need to devote plenty of time to map reading. Students need to practice symbolic symbols. A student must practice map reading. Students should be encouraged to visit a geographical place and create a map of it. A map can be read accurately if the observation ability of the students increases.

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