EFFECTIVENESS OF A TRAVELOGUE ON ACHIEVEMENT IN SOCIAL SCIENCE OF SECONDARY SCHOOL STUDENTS

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Abstract

This experimental study was an attempt to compare the effectiveness of a travelogue in enhancing the achievement in Social Science of secondary school students when compared to the activity oriented method of teaching. The investigator adopted a pre-test – post-test design for conducting the study. The total sample consisted of 80 students in the experimental and the control groups. The analysis of data was done using appropriate statistical techniques. The major findings of the study revealed that the travelogue has significant effectiveness on achievement in social science of secondary school students.

Key words: Effectiveness, Travelogue. Achievement test; Secondary school students

1. Introduction

Social science has now become a compulsory subject in the secondary school Curriculum, because of its multifarious value to the individual as well as the society. Social science is a body of knowledge pertaining to human affairs. The study of social science gives the child a spatial and temporal understanding and awareness. It may enrich his intellectual and social skills helpful to lead a purposeful and successful adult life.

Good academic achievement includes better achievement in social science also. Generally speaking, achievement refers to the scholastic or academic achievement of the students at the end of an educational programme. Academic achievement gained a lot more importance today owing to explosion of knowledge. Psychologists and educators have conducted a lot of researches regarding academic achievement so as to make conclusions about the different factors or variables which affect academic achievement. It is found that, Intelligence, socio-economic status, psychological factors, socio personal variables, social relations, home environment, classroom environment, Teaching methods and strategies influence the achievement of the students.

Education of the child involves the process of learning and teaching. A teaching situation necessarily involves the teacher, learners and the learning environment. This depends on the effective classroom organisation which deals with individuals differently. Students have various traits, capabilities, aptitudes and skills which requires teacher to provide an appropriate level of instruction.
Experts in the field of education are seriously thinking of different approaches in teaching learning strategies. There is no particular single way to achieve all instructional objectives. It demands number of ways to create the right path to learning. So we have to design suitable instructional materials and strategies for the effective teaching learning process.

Effective use of relevant educational technology and identification and utilisation of apt, appropriate and adequate instructional aids play a significant role in making leaning interesting and child centred. In this context the investigator has decided to conduct a study on the effectiveness of a travelogue on achievement in social science in comparison with the activity oriented method.

2. Objectives of the study

The major objectives of the study are:

1. To compare the effectiveness of travelogue on achievement in social science with that of the Activity method of Secondary school students.

2. Hypotheses of the study

1. There is no significant difference in the effectiveness of the travelogue when compared to activity oriented method on the achievement in social science of secondary school students.

3. Method adopted

The major objective of the present investigation is to find out the effectiveness of travelogue when compared to the activity oriented method on the achievement in social science of secondary school students. Comparison has to be made between the activity oriented method and the use of a travelogue in teaching social science at secondary school level with respect to different variables. The data pertaining to the objectives of the present study was collected through experimental method.

3.1. Design of the study

The experimental design employed in the present study is the pre-test – post-test design. Such type of experimental design uses two equivalent groups – the experimental group and the control group.

For the present investigation the investigator applied the Travelogue for the experimental group and the Activity method for the control group. A Pre test was conducted before the experiment to both the groups. A post test was also conducted after the experiment. The effectiveness was tested with the same scores.

3.1.3 Sample selected

The study was conducted on a representative sample of 80 standard IX students of Thiruvananthapuram District.
3.1.4 Tools used

(1) Travelogue (ii) Achievement test in Social science.

3.1.5 Statistical techniques

1. Test of significance between means
2. Analysis of Covariance (ANCOVA)

The investigator used the technique of ‘t’ test, ANOVA, and ANCOVA were used to find out the effectiveness of the Travelogue on activity oriented method and achievement in social science of secondary school students.

4. Analysis

4.1.1 Effectiveness of the Travelogue over activity Method for enhancing Achievement in social science (Using ANCOVA)

The effectiveness of the travelogue on the achievement of students when compared with the activity oriented method of teaching was found out. The details of the analysis are given below.

4.1.2 Comparison of the pre test scores of the Experimental Group and control Group

In order to find out whether there is any significant difference between the experimental group and the control group in their pre test scores. The mean and the standard deviation of the pre test score of students in the two groups were obtained and the t-value was found out. The data and results of the test of significance of the difference between means are given in Table.1.

<table>
<thead>
<tr>
<th>Group</th>
<th>No. of Pupils</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>40</td>
<td>10.11</td>
<td>2.32</td>
<td>0.58</td>
</tr>
<tr>
<td>Control</td>
<td>40</td>
<td>10.41</td>
<td>2.54</td>
<td></td>
</tr>
</tbody>
</table>

Table (1) shows that the t value is 0.58 which is not significant. It indicates that there is no significant difference between the means of the pre-test scores of the students in the experimental and control groups. This result shows that the two groups have more or less similar achievement in social science prior to the administration of the Travelogue.

4.1.3 Comparison of Post –Test scores of the Experimental and Control Groups

The mean and standard deviation of the post test scores of the students in the experimental group and the control groups were found out and the data and results of the test of significance of difference between means are given in Table.2.
Table 2

Data and Result of the test of Significance of the Difference between the mean Post Test score of the Pupils in Experimental and Control Groups.

<table>
<thead>
<tr>
<th>Group</th>
<th>No. of Pupils</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>40</td>
<td>16.04</td>
<td>4.65</td>
<td>2.58 *</td>
</tr>
<tr>
<td>Control</td>
<td>40</td>
<td>13.45</td>
<td>3.90</td>
<td></td>
</tr>
</tbody>
</table>

*Indicates significance at 0.05 level.

The obtained t value is 2.58 which is significant at 0.01 level, indicating that there is significant difference between the means of the post test scores of the students in the experimental and control groups. This means that the two groups differ significantly in the post-test. Since the mean score of the experimental group is higher than that of the control group. The experimental group is considered superior to the control group.

4.1.4. Determining Genuineness of the difference in performance of the Groups

The analysis of the pre test scores of the experimental and control groups show that the two groups are similar in their initial Achievement. After administering the travelogue to the experimental group and adopting the activity method to the control group, it was found in the comparison of the post test scores that the experimental group was better than the control group in their achievement. Hence it can be summarised that the travelogue in Social science is more effective than the activity method of teaching. But it cannot be conclusively said that both the groups differ significantly by simply comparing the post test scores of the groups. So it became necessary that the scores should be analysed using the technique of analysis of Covariance (ANCOVA) for comparison.

Effectiveness of the Travelogue over activity Method for enhancing Achievement in social science (Using ANCOVA)

The scores of achievement test of students of the experimental group and the control group were subjected to analysis of Covariance to determine the effectiveness of the travelogue over the activity method for enhancing the achievement in social science of the learners at secondary level.

The sum of squares, mean square variance and F ratios for the pre-test and post test scores of the experimental group and the control group were computed and presents the details of the analysis in Table 3

Table 3

Summary of ANOVA of pre test and post test Scores of pupils in the Experimental and Control groups

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>df</th>
<th>SSx</th>
<th>SSy</th>
<th>MSx</th>
<th>MSy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Among Means</td>
<td>1</td>
<td>2</td>
<td>105</td>
<td>2.2</td>
<td>104.73</td>
</tr>
<tr>
<td>Within Groups</td>
<td>79</td>
<td>467</td>
<td>1478</td>
<td>5.9</td>
<td>18.7</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>469</td>
<td>1583</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Fx=0.37 from Table F for df1/79
Fy=5.60
F at 0.05 level= 3.98
F at 0.01 level= 7.01

The F ratio for the two sets of scores was tested for significance. Since the table value of F for df 1/79 is 3.98 at 0.05 level and 7.01 at 0.01 level, the obtained Fx value shows that the random assignment of subjects to the groups was quite successful. The Fy obtained (Fy= 5.60) is significant at 0.05 level. The analysis of variance of the y means indicates that there exists significant difference between students belonging to experimental group and control group in their post test achievement scores.

For correcting the final y scores for the difference in the pre test scores, the adjusted sum of squares and adjusted mean square variance for post test scores were computed and F-ratio was calculated and given in the Table 4.

Table 4.
Summary of the Analysis of Co-variance (ANCOVA) of the pre test and post test scores of students in the experimental and control groups

<table>
<thead>
<tr>
<th>Sources of variation</th>
<th>df</th>
<th>SSx</th>
<th>SSy</th>
<th>SSxy</th>
<th>SSyx</th>
<th>Msysx</th>
<th>SDyx</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between means</td>
<td>1</td>
<td>2</td>
<td>105</td>
<td>-15.2</td>
<td>141</td>
<td>141</td>
<td>3.40</td>
</tr>
<tr>
<td>Within groups</td>
<td>78</td>
<td>467</td>
<td>1478</td>
<td>519.3</td>
<td>901.0</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>79</td>
<td>469</td>
<td>1583</td>
<td>504</td>
<td>1042</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fyx=12.18n
Fat 0.05 level=3.98
Fat0.01 level=7.01

The obtained value of Fy.X was tested for significance. Since the table value of f ratio for df (The adjusted means of the post test scores of students in the experimental and control groups were computed using correlation and regression. The difference between the adjusted y means as tested for significance. The data for adjusted means for post test score of students in the experimental and control groups are given in Table.5

Table.5
Adjusted means for the post test scores of students in the experimental and control Groups.

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mx</th>
<th>My</th>
<th>My.x(adjusted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>40</td>
<td>10.22</td>
<td>17.02</td>
<td>17.2</td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Group</td>
<td>40</td>
<td>10.55</td>
<td>14.75</td>
<td>14.6</td>
</tr>
<tr>
<td>General Means</td>
<td></td>
<td>10.38</td>
<td>15.89</td>
<td>115.89</td>
</tr>
</tbody>
</table>
The high 't' value shows that the two means differ significantly. It means that the experimental group and the control group differ significantly. As the adjusted mean score of the experimental group is higher than that of the adjusted mean score of the control group, the experimental group can be said to superior to the control group. Thus, it can be concluded that Travelogue is more effective in enhancing the achievement in Social science of secondary school students compared to activity oriented method.

5. Conclusion

From the present study it is found that there is significant difference between the mean scores of Experimental and control groups. The high post test mean scores of the experimental group indicates that the use of travelogue is more effective when compared to the activity oriented method. It is also found that the travelogue is more effective in enhancing the achievement of students in the experimental group compared to the control group. The findings of the present study can be utilised for the improvement of the preparation of curriculum in the secondary school level by incorporating diversified teaching learning strategies.

References


