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# A STUDY ON EFFECTIVENESS OF PROGRAMMED INSTRUCTION ON THE ACADEMIC ACHIEVEMENT OF NINTH STANDARD STUDENTS OF KANNADA MEDIUM STUDENTS

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**ABSTRACT:**
*The present study intended to find out the effectiveness of Programmed instruction in Social Science on academic achievement of secondary school students. There is a need for the teacher to the aware of teaching methods in the Social science. These include hypothesizing, experimenting, inferring and concluding. The investigators adopted an experimental design for the study. A sample of 200 students from standard IX was selected for the study. Adequate tools were used for collecting the data. The results revealed that the Programmed instruction was well suited for enhancing the achievement in social science of secondary school students.*

**KEY WORDS:** *Social Science , teaching methods.*

**INTRODUCTION:**
Program instruction method of teaching is an autocratic and individualized strategy. It depends on mental standards of operant condition. The reaction of the student is carefully constrained by the software engineer. Program guidelines principle center is to acquire alluring change the psychological area of the student's conduct. The structure of training technique is that the chosen substance is investigated and broken into littler components. Every component is free and complete in itself. The software engineer creates edges dependent on every component. Reactions are likewise given to the student in the program on some various pamphlets. The right reaction of the student is the new learning or new conduct. Prompt affirmation of right reaction gives support to the student and he continues to the following edge. Wrong reactions required criticism. Physical nearness of the instructor isn't essential. He may come to give guidelines with respect to the program. Understudies are left for learning at their own pace. Focal points of Program guidance showing procedure over comfort/conventional training technique are: 1. The fundamental accentuation is on individual contrasts and understudies' involvement.2. There isn't fixed time interim for learning.

Understudies may learn at their very own pace, 3. Learning by doing proverb of educating is pursued to include students in the learning procedure. 4. Understudies are presented uniquely to address reactions, accordingly, plausibility to submit blunders in decreased. 5. Prompt affirmation of the outcomes gives support to the students and urges the students to continue further. 6. Input is given to wrong answers, with the goal that student can create authority over the substance.

## 2. OBJECTIVES OF THE STUDY:

1. To compare the mean pre-test scores of the experimental and control group.
2. To compare the mean post-test scores of experimental and control group.
3. To compare the mean pre-test scores and post test score of academic achievement in Social science of secondary school students in experimental and controlled groups.

## 3. HYPOTHESIS:

1. There is no significant difference between mean pre-test scores of the experimental and control group.
2. There is no significant difference between the mean post-test scores of experimental and control group.
3. There is no significant difference between pre and post test of academic achievement in physical science of secondary school students in experimental and conventional groups.

## 4. 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 pretest post-test equivalent group design was selected for the study.

## 5. 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 motivation Test. After analyzing the results, the homogeneity of the two groups were ensured. Then randomly selected 100 students from the total sample and assigned as experimental group and another 100 students were assigned as control group. For checking the initial status of academicachievement of the students in Social Science a pre-test was conducted. After that the two groups were taught by one of the investigators, experimental group by Programmed instructions method and control group by constructivist method.30 lesson plans were taughtfor the two groups. After the experimental treatment, post test for the two dependent variables was conducted.

In this study, a pretest-posttest control group design was applied. academicAchievement tests were constructed and used as the instrument for the study. Pre-tests and post-tests were conducted for IX standard students and the scores were collected before and after the treatment was applied. The scores of pre-tests and post-tests were individually analysed through univariate methods for two groups. The significant difference between pre-test and post-tests for the two groups namely Programmed instructions and traditional were analysed through using t-test. The gain scores of pre-test and post-tests of experimental and control groups of each standard were compared using one-way analysis of variance.

## 6. ANALYSIS:

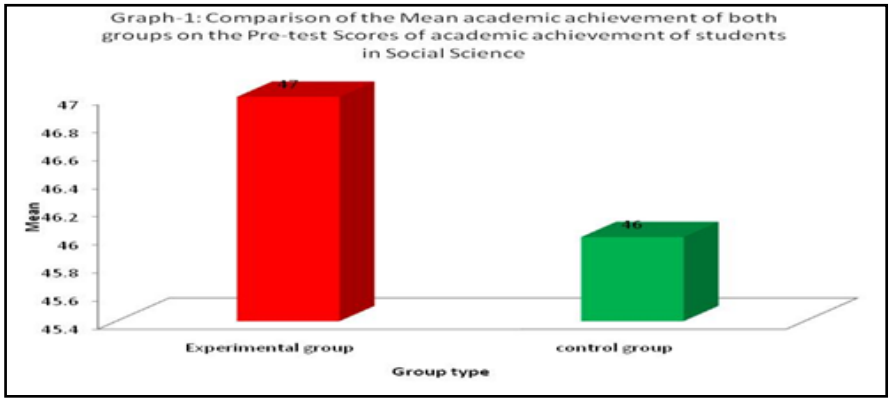
### 1. Comparison of the Mean academic achievement on the Pre-test Scores obtained both in Experimental group and control group

**Table-1**

**Comparison of the Mean academic achievement of both groups on the Pre-test Scores of academic achievement of students in Social Science:**

| Test | Number of Students | Mean | S.D. | Df | t-test | Sign. |
|---|---|---|---|---|---|---|
| Experimental group | 100 | 47 | 9.10 | 198 | 1.21 | Not significant |
| control group | 100 | 46 | 8.72 | | | |

A pre-test on academicachievement in Social Science test was administered to pupils in order to compare the pre-test on achievement 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 (1.21) 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 achievement in Social Science of experimental and control group. In the comparison, the two groups are almost equal in their achievement score.



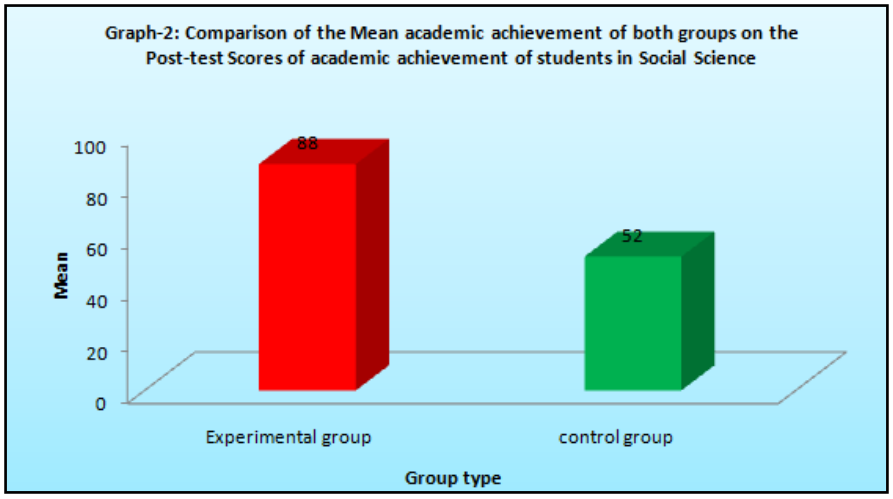

**2. Comparison of the Mean academic achievement on the Post-test Scores obtained both in Experimental group and control group**

**Table-2**

**Comparison of the Mean Performance on the post-test Scores of Scholastic achievement of students in Social Science:**

| Test | Number of Students | Mean | S.D. | df | t-test | Sign. |
|---|---|---|---|---|---|---|
| Experimental group | 100 | 88 | 10.12 | 198 | 5.671 | NS |
| control group | 100 | 52 | 12.04 | | | |

A post-test on Social Science test was administered in order tocompare the Achievement in Social Scienceof the twogroups of STD IX. The scores obtained in boththe experimental andcontrol group were subjected to a test of significance of the difference between means of the groups. The obtained t-value (5.671) is abovethe limitset for 0.05 level ofsignificance (1.96). So it can be noted that there is significant difference in the mean scores of achievement of Students in Social Science of experimental and control group. In the comparison, the higher the mean scores are seen associated with experimental group. Thisindicates the superiority of experimentalgroup over the control group in the case of achievement of Students in Social Science.




### 3. Comparison of the Mean academic achievement on the Pre-test and Post-test Scores obtained both in Experimental group and control group

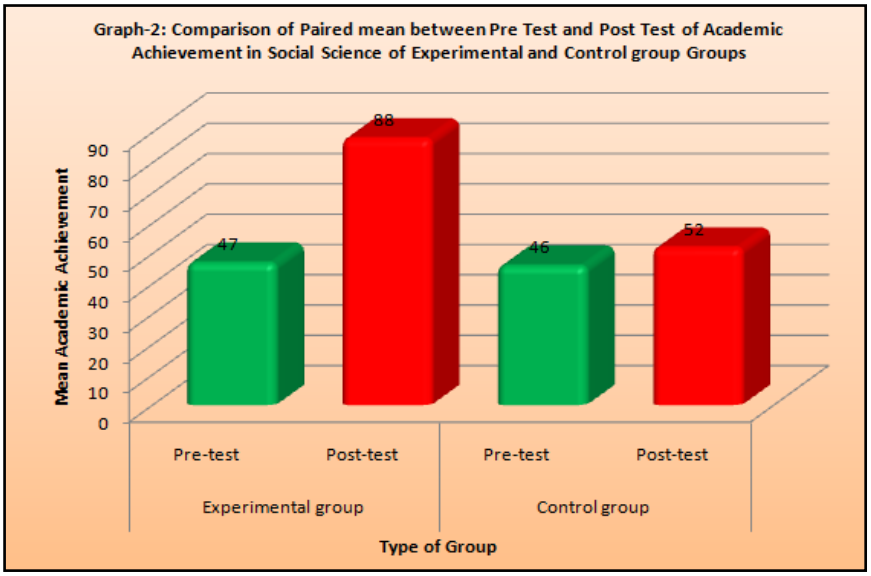
**Table-3:**
**Comparison of Paired mean, SD, r- test and t-Test Between Pre Test and Post Test of Academic Achievement in Social Science of Experimental and Control group Groups**

| Groups | Test | Mean | SD | Mean Difference | t-Value | Co-efficient of Correlation |
|---|---|---|---|---|---|---|
| Experimental group | Pre-test | 47 | 09.10 | 41 | 6.721 | 0.826 |
| | Post-test | 88 | 10.12 | | | |
| Control group | Pre-test | 46 | 08.72 | 14 | 5.324 | 0.978 |
| | Post-test | 52 | 12.04 | | | |

A difference between pre- test (47) and post test (88) academic achievement in Social science of students in experimental group is found to be significant (t= 6.721) at 5% level of significance. Hence the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the post tests of academic achievement in Social science of students are high as compared to pre test of academic achievement in Social science of students in experimental group. The table-3 also shows that there is significant relationship between the pre-test and post scores of academic achievement of Experimental group in Social Science.

A difference between pre-test (46) and post test (52) academic achievement in physical science of students in Controlled group is found to be significant (t= 5.324) at 5% level of significance. Hence the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the post tests of academic achievement in Social science of students are high as compared to pre- test of academic achievement in physical science of students in conventional group. The table-3 also shows that there is significant relationship between the pre-test and post scores of academic achievement of Controlled group group in Social Science.

From above discussion it is clear that Programmed instruction approach is more effective than traditional approach.




## 7. CONCLUSION:

The research studies conducted in recent times acknowledged the fact that the availability of new methods or approaches such as team teaching, individualized instruction, programmed instructions, media-assisted instruction increases the number of alternatives for the teacher in selecting appropriate strategy that helps to accomplish defined learning outcomes. In the present study, the investigator identified one of such strategies, programmed instructions approach, which could be used as an effective medium for teaching Social Science at the high school stages. From the results of the present study, it is concluded that the new concerns for the individual learner and the new ways of presenting information using the appropriate media especially Programmed instruction would certainly help the teachers to create a conducive classroom situation and an effective design for instruction and increases the academic achievement among students.

## 8. EDUCATIONAL IMPLICATIONS:

The present study revealed that the process approach teaching is effective on academic achievement in social science and though the investigators carried out these studies on a small sample, the findings throw light on the current educational practice in secondary classes. The approach used by the teacher, therefore, should be to bring a desirable change in the student.

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