



A Comparative Study of Traditional Teaching Method and Computerized Self Learning Material

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Abstract:

Programmed learning is an individualized and systematic instructional strategy for class room learning and self learning. This paper reports on an experiment undertaken to measure the effectiveness of a programmed learning materials designed for the teaching of Science and Technology for the students of standard IX of Ahmedabad. Experimental design was used for the study. Researcher selected total 138 students for the study and had done the analysis with the ANOVA analysis.

Keywords: *Computerized self learning material, Programmed learning, Traditional teaching method*

1. Introduction

Programmed learning is an individualized and systematic instructional strategy for classroom learning and self learning. Programmed Learning was developed by B.F. Skinner and is based on his theory of operant conditioning, according to which learning is best accomplished in small, incremental steps with immediate reinforcement or reward for the learner. The programmed learning is based on the principles of small steps, self pacing and immediate feedback.

Programmed learning had added momentum to the educational revolution pas researchers had now prove that there is no doubt that it will add greatly to the effectiveness and productivity of education.

Today the scenario has changed a lot. Students had become very familiar with latest technological instruments like mobile, Laptop, Computer etc. Access to the internet has become very easy for them. In this condition or scenario to check the effectiveness of the computer based linear programmed material for the students of standard IX in Science and Technology, the researcher selected this topic for research.

2. Definition of Keywords

2.1 Traditional Teaching Method

The teaching method in which teacher teaches most of points by giving lecture to students by chalk and talk is known as Traditional Teaching Method.

2.2 Computerized Self Learning Material

The material helpful to a student for learning himself without the help of teacher is known as Self Learning Material. It is created with the help of Computer is known as Computerized Self Learning Material.

2.3 Programmed Learning

In concern of the present study researcher will prepare Programmed Learning Material in computer on "Plant Tissue" for the students of Standard IX.

3. Objectives of the Study

The objectives of the present study are as follows.

1. To Construct Computerized Programmed Learning Material for the students of Standard 9th on the topic of “Plant Tissue” in Science & Technology Subject.
2. To try out Computerized Programmed Learning Material on the students of standard 9th.
3. To compare the Learning by Computerized Programmed Learning and Traditional Method.

4. Hypothesis

Ho₁ There is no significant difference between the mean score of students learning through Computerized Programmed Learning and Traditional Method in school 1.

Ho₂ There is no significant difference between the mean score of students learning through Computerized Programmed Learning and Traditional Method in school 2.

5. Variables

The variables of present study are as follows.

Table 1: Variable

| Sr. No. | Types of Variables | Level of Variables |
|---------|----------------------|---|
| 1. | Dependent Variable | Score of Post test |
| 2. | Independent variable | Traditional Method Computerized Programmed Learning Material |
| 3. | Controlled Variable | Standard Unit Time |

6. Research Method

In the present study, researcher wants to investigate the student’s achievement in self-learning through computerized self study material. Thus the present study is quantitative research. Researcher had selected experimental method for the present study.

7. Population

In the present study, the population was the students of standard 9th studying in Gujarati medium schools in Ahmedabad.

8. Methods of Sampling

In the present study, the researcher had prepared the list of Gujarati Medium schools located in West Ahmedabad. Out of these two schools were selected through draw system by Random Sampling Method.

Table 2: The Sample Selected for Experimental

| Sr. No. | School | No. of Students | | | Group |
|---------|------------------------------------|-----------------|-------|-------|--------------|
| | | Boys | Girls | Total | |
| 1 | J. M. Patel High School, Ghatlodia | 18 | 18 | 36 | Controlled |
| | | 17 | 17 | 34 | Experimental |
| 2 | New Era High School, Sanand | 17 | 16 | 33 | Controlled |
| | | 17 | 18 | 35 | Experimental |
| Total | | 69 | 69 | 138 | |

9. Tool of the study

The main objective of the study was to study the effectiveness of computerized programmed learning for the students of standard 9th on “Plant Tissue” unit of Science and Technology subject. For that researcher had decided to prepare Computerized Programmed Learning Material and post test based

on same topic to check the effectiveness. After preparation it is given to computer experts, expert teachers of Science and technology Subject and Science and technology method masters changes in Computerized Programmed Learning Material.

10. Design of the study

The researcher had taken the standard 8th Final examination's marks for creation of equivalent group. The research prepares pairs of equal marks students in both school. In this way researcher prepare equal group with mean.

11. Data Analysis

The study was conducted on both schools total 138 students. The researcher applied both method of teaching like Traditional Method and Computerized Programmed Learning Method. After completion of unit post test was given to students and get the data. The data analysis was made by find out the mean. The significant difference between the achievements on the post test was investigated through ANOVA.

Table 3: Analysis of Achievement Test

| Source of Variance | Sum of Square | df | Mean | | | | F | Interpretation |
|--------------------|---------------|----|----------|-------|----------|-------|------|---|
| | | | School 1 | | School 2 | | | |
| | | | Exp. | Trad. | Exp. | Trad. | | |
| Teaching Method | 18.12 | 1 | 18.47 | 17.30 | 19.24 | 18.86 | 0.90 | There is no significance at 0.05 and 0.01 level |

12. Findings

The findings are as under after checking the objectives and hypotheses.

1. The mean of the students learning through Computerized Programmed Learning is higher than the students learning through Traditional Method in school 1. Its shows the achievement of the students learning through Computerized Programmed Learning is higher than Traditional teaching method.
2. The mean of the students learning through Computerized Programmed Learning is higher than the students learning through Traditional Method in school 2 also.. Its shows the achievement of the students learning through Computerized Programmed Learning is higher than Traditional teaching method.
3. The Computerized Programmed Learning Material is very useful in Self study.

13. Suggestion

The suggestions are as follows.

1. The programmed material is teacher can use in his absence for learning to student as self study so teacher have to develop more Programmed Material for students.
2. It is helpful aid to teacher's classroom teaching.
3. Teacher can utilize this type of self learning modules for exercise for drill work.

Reference

1. Brog, R. W. (1983). Educational Research as Introduction, New York: Longman Green & Co.
2. James, D.F. (1964). Teaching Machine, New York : John P. Dececo Educational
3. Shah, G.B. (2000). Programmed Learning, Ahmedabad: University Granth Nirman Board.
4. Trivedi, M. D. and Parekh, B. U. (1986). Statistics in Education, Ahmedabad: University Granth Nirman Board.