

Effectiveness of Programmed Learning Material in Teaching Basic Elements of Accountancy Subject for Students of Standard XI in References to Scholastics Achievement

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ABSTRACT

The present teaching techniques needs revised thinking to make learning more effective for students. In fact the teaching methodology should be such by which the students can be involved in reading, thinking, problem solving and then learning by their own efforts. For this purpose self-learning method is a very effective media. There are several Self Learning Techniques in which learner can learn by their own pace. Patel, Bhanubhai(1993) and Sakhiya,R.B.(2006) also did an experiment for self-learning technique. They both found self-learning technique effective. Present study was differing from these two studies because researcher made PLM with the help of computer programme MS Power point. Students of Std-11(Commerce) were selected for the purpose of research. Can the subject “Basic elements of accountancy” be made easier by using Programmed Learning Material? Is the Programmed Learning Method similarly effective for boys and girls? The investigator has thought about all such crucial questions for undertaking this research. Hence the topic “EFFECTIVENESS OF PROGRAMMED LEARNING MATERIAL INTEACHING BASIC ELEMENTS OF ACCOUNTANCY SUBJECT FOR STUDENTS OF STANDARD XI” is selected for the presentation.

Keywords: *P.L.M.-Programmed Learning Material, Basic Elements of Accountancy, Standard-11*

One of the important agents in teaching-learning process is student and in fact the whole teaching-learning process should revolve around this agent called ‘Student’. It is important to keep children at central place in the teaching-learning process in order to achieve the auspicious ail of ‘Overall development of child’. In the present situation we are witnessing a scenario of knowledge explosion. All the nations of the world have realized the importance of education for national development. In the process of education also the stage of higher secondary level is very crucial because at this stage all the students are in a dilemma regarding the selection of their

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professional career. There are several limitations also in the present system of the education which are hindering in the overall development of children. Today the students are most of the time made to listen the lectures and learn which very momentary style of learning is. There are various techniques of self-learning, one of which is 'Programmed Learning Method'. In this method the students can learn and proceed ahead at their own pace with or without the teacher's assistance. Standard XI of higher secondary level is the first year of the study in the stream which is selected by the students by themselves. In this standard 'Basic elements of Accountancy' is a new subject to them. Therefore, if the basic concepts of this subject are clear in their mind, they can proceed easily and more appropriately in their upper standards of higher education. Therefore considering this aspect in mind, the present study is under taken to prepare Programmed Learning Material for unit of 'Financial Concepts & Principles' of Accountancy subject in Standard XI and assess its effectiveness on the achievement of students in this subject.

Statement of the Problem

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Objectives

The researcher decided the following objectives for the present study.

- 1) To assess the effectiveness of Programmed Learning Material.
- 2) To assess the effectiveness of Programmed Learning Material in the context of Scholastics Achievement.

Hypothesis

The following hypotheses were prepared for the present study.

- H₀₁**- There will be no significant difference in the mean score achieved in the post-test of Experimental Group and Control Group students.
- H₀₂**- There will be no significant difference in the mean score achieved in the post-test of students having High Scholastics Achievement of Experimental Group and Control Group.
- H₀₃**- There will be no significant difference in the mean score achieved in the post-test of students having Low Scholastics Achievement of Experimental Group and Control Group.
- H₀₄** -There will be no significant difference in the mean score achieved in the post-test of students having High Scholastics Achievement and students having Low Scholastics Achievement of Experimental Group.

Limitation and Delimitation

- In the present study the frames of PLM and post-test are constructed by the investigator so their limitations also remain as the limitation of the present study.

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- The findings in the present study were found on the basis of the responses of the students so this also remains as a limitation of the study.
- The present study was delimited to Gujarati medium higher secondary school of Gandhinagar district.
- The present study is limited to the unit of 'Financial Concepts & Principles' of Basic Elements of Accountancy subject.

Definition of Key-words

Programmed Learning Material:

Programmed Learning Material is such a process in which small parts of subject matter are arranged in a symmetrical pattern which is logically associated with each other. Thus, such literature which is carefully prepared for self-learning purpose for the students is called Programmed Learning Material.

Scholastics Achievement:

In the present study the score of First Examination taken by School will be considered as a Scholastics Achievement. To Find two level of Scholastics Achievement Mean was found. The Students having score in scholastic Test more than or equal to mean was considered as students having high Scholastics Achievement, else was considered as students having low Scholastics Achievement.

Educational Achievement:

In the present study scores achieved by the students in their Post-test will be considered as educational achievement.

Variable

The following are the variables included in the present study.

- **Independent Variable:**

Method	Programmed Learning Method(Exp. Group)
	Traditional Method(Cont. Group)

- **Dependent Variable:** Educational Achievement

(Score obtain by Students in post-test)

- **Moderate Variable: (Sub-Independent Variable)**

Scholastics Achievement: High (A1), Low (A2)

- **Control Variable:**

- Subject: - Basic Elements of Accountancy

- Units: -Financial Concepts & Principles

- Medium: - Gujarati

- Area: - Gandhinagar

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Population and Sample

All the Students studying in the Standard XI (Commerce) Gujarati medium schools of Gandhinagar are included in the population of the present research. As a sample Shree R. C. Secondary and Higher Secondary school was selected purposively. By lottery method two classes were selected among four classes. All students of selected class were included in a sample of study by cluster method. For the smooth conduct of the experiment, it was conducted on the whole class. But for the analysis the 144 (74 + 70) regularly coming students were selected as a sample.

Method →	Programmed Learning Method (Experimental Group)	Traditional Method (Control Group)
Gender ↓		
Boys	48	49
Girls	26	21
Total →	74	70

Research Method and Research Design:

Experimental Method of Research was used for the present study. The experiment of the present research was to check the effectiveness of PLM for some selected units of subject Basic Elements of accountancy. The complete experimental design of this present research is 'Two group only post test design'. The figurative description of which can be made as given below.

Group	Treatment	Post Test
E	X (PLM)	T2
C	-	T2

Treatment:

Researcher made P.L.M. with the help of Computer Programme MS PowerPoint. Researcher studied content for making frames. In every frame there is some content followed by a question. Every question has three options hyperlinked. By clicking the wrong option student was derived to a slide which shows that he gave wrong answer. In the slide showing the result of question has a link named BACK; by clicking it students come back to the slide which he/she studied. By clicking right answer one derived to the slide which shows that he/she has given right answer, in which there was a link named NEXT; after clicking on NEXT learner can move forward to next frame. By this students can learn by their own pace.

Tool for Data Collection

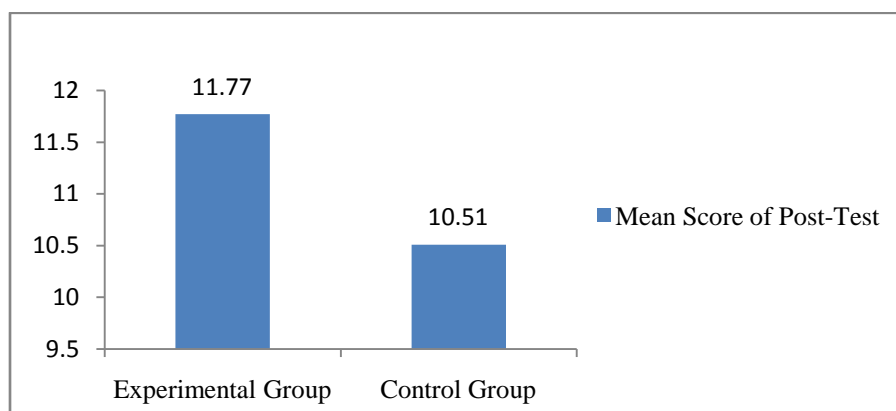
For Data Collection researcher Constructed teacher made Post test on the basis of blue print. In which 20 Questions were asked. Equal mark (1) was given to each question. The post test was of multiple choice questions type.

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DATA ANALYSIS

- To check the 'equability of groups' t-value was found between the scores of scholastic test.
- To access the effectiveness of PLM t-value was found.
- For rejection or acceptance of hypothesis, t-value was found Hypothesis wise.

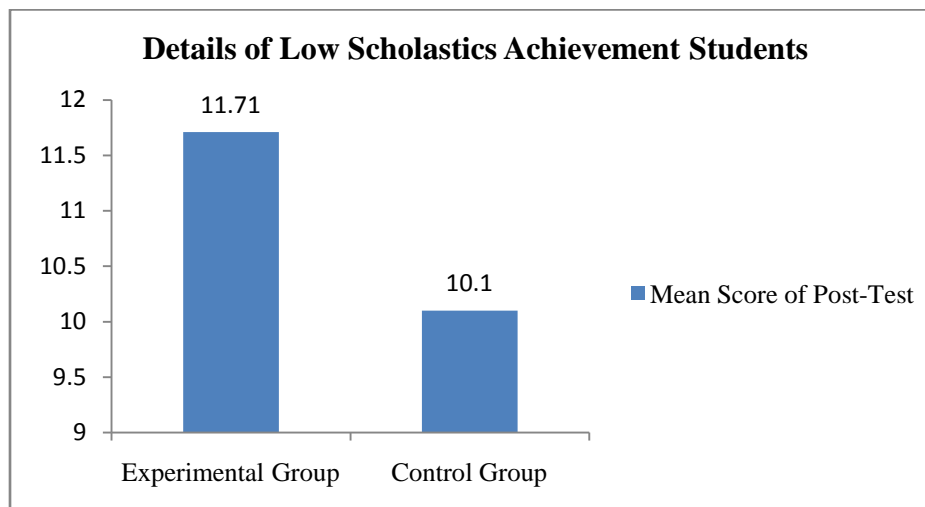
Hypothesis	Group	N	M	SD	SED	t-value	Remarks
Ho ₁	Experimental Group	74	11.77	2.61	0.44	2.86	Significant at 0.01 level
	Control Group	70	10.51	2.66			



Details of High Scholastics Achievement Students							
Hypothesis	Group	N	M	SD	SED	t-value	Remarks
Ho ₂	Experimental Group	39	11.82	2.27	0.55	1.85	No Significant Difference
	Control Group	41	10.80	2.64			

Details of Low Scholastics Achievement Students							
Hypothesis	Group	N	M	SD	SED	t-value	Remarks
Ho ₃	Experimental Group	35	11.71	2.98	0.71	2.27	Significant at 0.05 level
	Control Group	29	10.10	2.69			

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Details of Experiment Group							
Hypothesis	Group	N	M	SD	SEd	t-value	Remarks
Ho ₄	High Scholastics Achievement	39	11.82	2.27	0.62	0.17	No Significant Difference
	Low Scholastics Achievement	35	11.71	2.98			

FINDINGS

1. The effect of P.L.M. was found on the whole group of Students.
2. In the context of students having High Scholastics Achievement there isn't significant effect of PLM. This means that there is no significant effect of the PLM on the students having High Scholastics Achievement of Experiment Group.
3. In the context of students having Low Scholastics Achievement there is significant effect of PLM. This means that there is positive effect of the PLM on students having Low Scholastics Achievement of Experiment Group.
4. In the context Scholastic Achievement there is no significant effect of PLM. This means that there is no significant difference in the effect of PLM on the both students having High Scholastics Achievement group and students having Low Scholastics Achievement group of Experiment Group.

EDUCATIONAL IMPLICATION

The educational implications of the present research are as mentioned below.

1. PLM was prepared for students could be used in Higher Secondary Schools.
2. On the basis of the scores achieved in the post test, it can be said that the teaching should be provided with the help of PLM rather than the traditional methods of teaching.
3. By the use of PLM the students were found to be interested in the learning of Basic Elements of Accountancy subject. And so it can be said that the learning was effective.

CONCLUSION

From the Conclusion and finding obtain from study we can say that PLM is far effective than traditional method, Hence such a new innovative experiments should be go on in future. There are several more self Learning Technique which involve to students in Teaching Learning Process with interest. Researcher should also check the effectiveness of such a self learning technique.

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