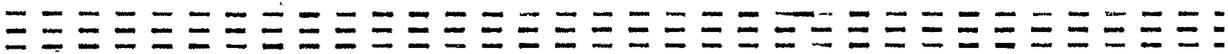


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 * CHAPTER : VII *

S U M M A R Y



INTRODUCTION :

Through programmed learning materials have been widely used in other disciplines, in history, it is yet to find its proper place. Very few studies have been done in this subject area and there is a lot of scope for further research. A few studies have suggested the possibility of group-pacing and the combination of PLM with other instructional components like library work, seminar and audio visual education, History, being an abstract subject with its own limitations, has much to depend on audio-visual materials in order to make the past real. Hence different combination of media are to be tried in order to make the lessons vivid and at the same time goal oriented with such view in mind the topic "An experimental study of the efficacy of programmed filmstrips as a method of teaching history in the secondary schools" was chosen for investigation.

THE OBJECTIVES :

The objectives of this investigation were two fold :

1. To develop software materials for the media and;
2. To validate the developed materials against the conventional teaching in terms of immediate the call and delayed retention in the case of the following four objectives viz., knowledge, Understanding, Application and Skill.

THE HYPOTHESES :

The following eight hypotheses were formed in order to be verified in the light of available data.

1. There is no significant difference in the mean achievement of the three groups of pupils on the knowledge objective when taught through three different media.
2. There is no significant difference in the mean achievement of the three groups of pupils on the objective Understanding when taught through three different media.
3. There is no significant difference in the mean achievement of the three groups of pupils on the objective application, when ^{taught}~~taught~~ through three different media.

4. There is no significant difference in the mean achievement of the three groups of pupils on the objective skill, when taught through three different media.
5. There is no significant difference in the mean achievement of the three groups of pupils on the objective knowledge on the retention test.
6. There is no significant difference in the mean achievement of the groups of pupils on the objective understanding on the retention test.
7. There is no significant difference in the mean achievement of the three groups of pupils on the objective Application on the retention test.
8. There is no significant difference in the mean achievement of the three groups of pupils on the objective skill on the retention test.

DESIGN OF THE STUDY :

Three groups experimental design was followed. The software materials were exposed to the subjects through three media viz. Teacher with Programmed Filmstrip, Programmed Filmstrip without the teacher, and the conventional method. Four lessons were prepared on the Unit Buddhism and Jainism. The following design was followed.

1. Pre-~~post~~^{pre}test
2. Pretest
3. Exposure to the media
4. Post test
5. After four weeks
5. Retention test.

The pre-pretest was a test on basic history, conducted in order to classify the pupils into three matched media groups. Pretests post tests and retention tests were the same tests administered at different times. When administered before lesson they were called pre tests, after the lesson they became post tests and four weeks later they became retention tests. Their purpose was to measure the background information, gain acquired through exposure to the media and the amount of retention they had after four weeks.

SAMPLE :

The sample was chosen from nine schools in the city of Madras. All were Tamil medium schools out of which five were boys' and four girls' schools. The pupils in each school formed a cluster. Each cluster consisted of three sections of Std. X. After the administration of the pre pre-test, matching was done in each schools. Care was taken to see that each medium group had the same N, M and as the other two medium groups in the same school. The total sample considered consisted of 450 boys and 315 girls.

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PREPARATION OF INSTRUCTIONAL COMPONENTS AND TESTS :

A panel of three experienced history teachers chose the unit to be programmed. The unit Buddhism and Jainism was chosen having in mind the specific needs of the pupils in Std. X. For the sake of convenience, the unit was divided into four lessons namely, Buddhism Part I and Buddhism Part II; Jainism Part I and Jainism Part II. Each lesson was subdivided into sub-units and specific information needed to coach such sub units were gathered. The programmes were written and tried on, teachers, teacher trainees, and small groups of high school pupils in order to find out their workability. The artists drew the appropriate pictures and the programmes were photographed and converted into programmed filmstrips.

Similarly tests were prepared. Test items were collected from various sources and tried on teachers, teacher trainees and school pupils. The maximum allotted for each objective was 20 in the case of knowledge and 10 in the case of other objectives. While computing the scores, each objective was kept as a separate unit. The reliability of the tests were computed by the split half method and by the Spearman-Brown prophecy formula.

EXPERIMENTATION :

The experiment was conducted in nine schools. In each school there was a cluster of three sections. The three medium

groups in each school received instruction at the same time. On the first day pre pre-test was administered followed by the four pre-tests. On the second day lessons of Buddhism were taught. On the third day lessons on Jainism were given. Each lesson was immediately followed by a post test. Four weeks later the same test was administered again to test their retention.

Medium I groups received instruction through the programmed filmstrip coupled with teacher's explanation. Medium II groups received instruction only through the programmed filmstrips. No explanation was given. Medium III received instruction through the conventional method.

STATISTICAL TREATMENT :

The data gathered were consolidated in the following manner. The means and σ of each medium in all the four objectives were computed separately. Thus for the four lessons and for four objectives 16 tables were prepared. Similarly another 16 tables were prepared for the retention tests. To make interpretation easier, the means of the 9 medium I groups were combined to find out the M Comb and σ Comb. Similar treatment was given to the other two media and thus the tables were reduced to 8.

Bartlett's F test was tried and it was found that the significance was at .01 level on all the cases. It was necessary to frame specific hypotheses and so for each table three specific hypotheses were framed. The hypotheses were :

1. "There is no significant difference in mean gain on the post tests/retention test for the objective knowledge/understanding/application/skill between medium I group and medium II group.
2. "There is no significant difference in the mean gain on the post test/retention test for the objective knowledge/understanding/application/skill between medium II group and medium III group.
3. "There is no significant difference in the mean gain on the post test/retention test for the objective knowledge/understanding/application/skill between medium I group and medium III group.

Critical ratio was computed to test the validity of the above mentioned specific hypotheses for each table. It was found that in most cases the hypotheses were rejected.

FINDINGS :

The following are the findings :

1. It is possible to develop programmed learning materials in history.
2. Group pacing is possible
3. PLM can be integrated with Audio-visual materials

4. PLM can be used through media like filmstrips.
5. It has proved the importance of the role of the teacher when self learning techniques are employed.
6. Higher cognitive abilities can be developed through PLM.
7. Learning through programmed filmstrips results in better retention.

