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ORIGINAL ARTICLE

OBJECTIVES ACHIEVED THROUGH PROGRAMMED LESSON AND CONVENTIONAL METHOD OF TEACHING.

ALLAMAPRABHU S. RAVIKIRTI

M.Sc., M.A. , M.Ed. , M.Phil. ,Ph.D.
Associate Prof. & Vice Prin. Azad College of Education, Satara, Maharashtra.

Abstract:

A student can learn only if he actually responds in a learning situation. In programmed instruction activity responding is arranged with a limited resources of learning material with which he is ready to interact. After acquainting a bit of learning material the pupil is expected to respond to questions based on that information. In such a way the pupil is made to pay attention to learning material

KEY WORDS:

Objectives , Conventional , Method of Teaching , material .

1) BACKGROUND:

Various recent technique and methods in education are having more effect on the traditional approach to teaching and learning. Due to scientific technique recent approaches and innovations have gained pivotal importance. Psychologist have developed distinct strategy of instruction having base of effective learning . Instructional process have been developed to maximize the rate of acquisition of final behavior. The behavior concerned is achieved by the application of the principle of responding reinforcement, successive progress and gradual achievement (Skinner,1954).

2) THE STUDY:

The comparative effectiveness of the programmed lesson was investigated in terms of specified classroom teaching objectives on two groups of learners which were treated independently. The topic on 'Leaves' through programmed lesson and conventional method of teaching was selected.

The main objective of this study was to compare the effectiveness of book format program of a linear style and conventional method of teaching in order to focus the relative merits and demerits in instructional situation. For this purpose program developed by SCERT Pune on 'Leaves' for six standard pupils was used .

3) OBJECTIVE OF THE STUDY:

1) To compare the knowledge acquired by the pupils of the experimental and controlled group in connection with the unit selected for the study purpose i.e. 'Leaves'.
2) To compare the understanding of the pupils of the experimental and controlled group in connection with the unit selected for the study purpose.
3) To compare the ability of pupils to apply the knowledge and skill of the experimental and controlled group.
4) To compare the skill acquired by the pupils of the experimental and controlled group in connection with the unit selected for the study purpose of General Science of Std. VI.

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4) PROCEDURE OF THE STUDY:

The average percentage and the scores of G. C. Ahuja Group intelligence test were obtained. The coefficient of correlation between the average academic score and the intelligence score was 0.85. Even numbered student were included in the experimental group and odd numbered student were included in the controlled group.

Sampling for this study was purposive. The female students of std. VI were selected for this study. The average percentage of one student for four term examination was calculated and arranged in the ascending order.

The two groups were treated independently by providing book format linear program and conventional method of teaching.

5) PRESENTATION OF DATA:

The data showing scores obtained by administering programmed instructional group has presented. After that the data showing scores obtained by conventional method of teaching was presented. In this respect pre and post tests are important phases. The table based on experimental group have been followed by controlled group. The experimental and conventional groups were treated independently . In such a way pre and post tests are important phases.

6) EXPERIMENTAL GROUP- PRE AND POST TEST:

In this group only the responses of 22 subjects have been considered. Due to comparison of scores of pre and post test it is possible to know about the effectiveness of programmed instruction. Generally 35% of maximum marks is the criterion of passing. Taking into consideration this criteria 10 subjects are failures in the per test and only two subject students are failures in the post test. This improvement is due to the opportunity provided to study the programmed lesson of book format type. For awarding the first class in the examination 60% marks are expected. As per this criteria There is not a single candidate who has acquired this level in the pre-test but in the post-test there are eight subjects who have achieved the level to first class the mean of pre test score is 6.66 and the same of post test is 10.09. This achievement in respect to the level of passing first class level marks and mean scores indicated the effect of programmed lessons which were provided to the subjects of experimental group.

7) CONTROLLED GROUP- PRE AND POST TEST:

The researcher intends to focus this data with the criteria of passing and first class level marks in the examinations and the mean of the scores of test concerned. Generally 35% of maximum marks and 60%of the same is the criteria for passing and first class respectively. There are fifteen failures in the pre-test scores on the contrary there is only one failure in the post- test scores. There is not a class level achievement in the pre- test but there is at least one first class level achievement in post-test. The mean of pre test is 5.80 and the same of post- test is 9.18. This improvement in attainment is due to the conventional method of teaching.

Table 1.

Comparative Statistics in Respect of Experimental Group and Controlled Group.

Group	N1	Mean		S.D.	
		Pre Test	Post Test	Pre Test	Post Test
Experimental	22	6.66	10.09	2.02	2.31
Controlled	22	5.80	9.81	1.51	1.47

OBJECTIVES ACHIEVED THROUGH PROGRAMMED LESSON.....

Table 2.

Objective Wise Achievements - Comparison of the Mean Scores of Experimental Controlled.

Objective Achievement	Score Type	Pre Test		Post Test		F–ratio: Obtained: through the use of analysis of Variance (Pre Test) De-1/42	Covariance (Post Test) df-1/41
		Expt. Gr.	Cont. Gr.	Expt. Gr.	Cont. Gr.		
Total	M	6.66	5.80	10.09	9.18	34.95	
	SD	2.02	1.51	2.31	1.47		
Knowledge	M	1.42	1.43	2.96	2.66	0.0039	21.5
	SD	0.32	0.52	0.54	0.30		
Understanding	M	2.08	1.89	2.96	3.43	0.404	12.10
	SD	0.60	0.52	0.96	0.70		
Application	M	1.14	1.25	2.17	1.65	0.448	17.85
	SD	0.26	0.25	0.54	0.30		
Skill	M	2.02	1.23	2.00	1.44	34.1	49.85
	SD	0.82	0.22	0.27	0.17		

Table 3.

Objective Wise Achievement - Comparison of Variability of the Experimental and Controlled Group

Objective Achieved	Pre Test		Post Test		Pre Test Stage CR	Pre Test Stage r
	Expt. Gr. N=22 SD	Cont. Gr. N=22 SD	Expt. Gr. N=22 SD	Cont. Gr. N=22 SD		
Total	2.02	1.51	2.31	1.47		
Knowledge	0.34	0.52	0.54	0.30	0.075	0.075
Understanding	0.60	0.52	0.96	0.70	0.12	1.045
Application	0.26	0.25	0.54	0.30	0.30 1.43	0.31
Skill	0.82	0.22	0.27	0.27	4.36	2.93

8) HYPOTHESIS TESTING:

The summary of total work appears in table 2 and 3. These table have been referred here. The tabulated data serves the purpose of hypothesis testing.

Hypothesis -1

The achievement of the pupils with respect to the knowledge will be significant in case of controlled group in comparison with experimental group.

The mean of the scores of knowledge in the experimental group for post test is 2.96 but on the contrary that of controlled group is 2.66. This proves the considerable achievement of the participant subject of experimental group. In connection with knowledge comparatively has lower achievement in case of controlled group.

So the hypothesis 1 is rejected.

Hypothesis -2

The achievement of the pupils with respect to understanding will be significant in case of controlled group in comparison with experimental group.

The mean score of the objective understand in experimental group and controlled group of both

the post test are 2.96 and 2.43 respectively. Here the mean if the controlled group is high so it represent that the students of controlled group have achieved more.

So the hypothesis 2 is accepted.

Hypothesis -3

The performance of the subject in acquiring application ability will be considerable in controlled group in comparison with experimental group.

The mean scores of the objective application ability in experimental group and controlled group of both post test are 2.17 and 1.65 respectively. Here the mean of the experimental group is more and that of the controlled group have achieved less.

Therefore the hypothesis – 3 is rejected.

Hypothesis -4

The performance of the subjects in acquiring skill will be significant in case of experimental group.

The mean scores of the objective skill in experimental group and controlled group of both the post test are 2.00 and 1.44 respectively. Here the mean of the experimental group is more and that of the controlled group is less in comparison with each other. So the Students of experimental group have achieved more.

Therefore the hypothesis – 4 is accepted.

All the hypothesis have been tested at 0.05 level. The comparison in between the post test of experimental and controlled group.

9) FINDINGS OF THE STUDY:

1) To inculcate the knowledge of science by the conventional method of teaching is not superior according to this experiment.
2) To achieve the objective of understanding or comprehension the conventional method of teaching is superior.
3) The performance of the subject participants in acquiring application ability among the students of controlled group is not up to the mark or superior.
4) In this study it is found that the programmed instruction approach of teaching is useful to develop the scientific skill among the students of Std. VI.

10)CONCLUSION:

The study has revealed that the book format programmed lesson is a viable means of instruction for class VI children for teaching a topic like 'leaves' in General Science. Similar results have been reported in the studies completed by Meyer (1959) Sharma (1966).

It appears that there is positive effect of both the approaches of teaching. It is found that there is positive effect of both the approaches of teaching. In this study it is found that the children were not having sufficient background in connection with achievement but after administration of the programmed lesson and teaching in the classroom the pupils have achieved expected passing criteria of examination. The programmed instruction found superior to conventional method of teaching in producing learning effects as measured in scores on pre-test and immediate post-test.

The programmed instruction is a self paced approach, so the students have exhibited the change in behavior in terms of objectives of teaching.

Some times the verbalism in the classroom is the obstacle in the development of the pupils.

The teacher should ready with a list of learning activities to be supplied in such a situation. The pupils who have superior ability of reading complete the programmed lesson within less time.

It is also found here that for the developing the application ability among the students the programmed lessons are not effective in comparison with other objectives of teaching. This is due to the lack of opportunity in connection with reasoning provided. If the programmed lessons are constructed to the needs of the pupils it become more effective.

Programmed instruction involves learning experience that are carefully planned, specified and arranged on a scientific basis in order to make instruction more powerful and learning more effective. In this study it also reveals that orderly controlled sequencing of experiences help to reach a specific goal.

The casual discussions with the pupils focused the active interest of the pupil in searching of the

words to be filled in the blanks. The feedback acts as a reinforcement and motivation for progress. Each frame requires only one response which demands critical comprehension of the frame. Each student moves through the programmed material at her own pace.

11) IMPLICATIONS:

The present study has shown that the method of programmed instruction when implemented by the use of book format is an effective method of teaching. However the students have felt need of teacher. This matter came to know in the casual discussions with students. In programmed instruction the teacher under takes the activity of development of the student in the sequence of learning experiences to produce measurable learning outcomes.

The programmed material is only resource material which stores information and with the help of appropriate media instrumentation transmit the information. In such a way the learner gets engaged himself in interaction with the material.

The teacher becomes free to play the more productive role of supervision, diagnosing and providing remedial instruction to the student. These roles will give a new meaning to the educational life of the student. The learner's role is to acquire the information, understand the same and apply it in various situations. But if in this process he finds difficult in understanding a step in the programme, the programme cannot help him in any way . The step is to be understood by him in consultation with the teacher. Obviously, programmes cannot replace teacher.

A teacher would find great difficulty in engaging those students who have finished earlier without disturbing the others. He would also find difficulty in the case of student who could not finish even after the period was over. So it is recommended to use the book format programme as home assignment or for other individualized instructional purpose. The book format programme is a self paced programme, some fast learners finished it in less time, some took more time. Such a programme therefore creates managerial problems.

The teachers have always lagged behind in identifying and implementing teaching strategies which facilitate in acquiring different types of educational objectives. The various provisions in programmed learning and conventional method of teaching are related with objectives attainment process. Educational practitioners are eager to know which type of programmes would be more useful to different types of learners. The experiment gives mythological guidelines for further research in this direction. The general implication of the study are that the programmers should know the relative merits and demerits of the programme and the programme developers should provide guide lines to the teachers.

Totally we cannot replace the teacher by programmed instruction but these serve to solve the problems of indiscipline and verbalism. The conventional method is also useful for achieving the classroom objectives of teaching.

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