

Study of the Effectiveness of Self- Learning Material on Students Achievement at B.Ed Level**Dr. Pallavi Vartak**Assistant Professor, SMSET's B.Ed. College,
Talegaon Dabhade.**Abstract**

Today the scenario of education has changed so much with respect to classroom teaching. There are many factors such as number of students in class, time available to deliver the content, competition to be faced by the students etc. In such situation, the individual attention within the stipulated timeframe is difficult. Furthermore the classroom consists of students of all categories as regards to their I.Q. level and capacities of students to comprehend the subject matter. In such scenario, students should get chance to go through the subject matter, understand it and reflect on it. This demands for individual time. Self learning material gives students a chance to study at their own pace in the absence of teacher. Present research explores the effectiveness of self learning material for B.Ed students.

1.1 Introduction:

Classroom is the place where all the teaching and learning is carried out. A Teacher teaches and students learn. Earlier everything was carried out at ease as there was lot of time available. Also the number of students in the class was less. But such picture is hardly seen in any classroom today. Due to globalization, the pace of life has changed, bringing in more competition worldwide. The number of students in class is increasing. Therefore, it is not possible for a teacher to pay individual attention to the students within the stipulated timeframe of the curriculum is not possible. Furthermore the classroom consists of students of all categories as regards to their I.Q. level and capacities of students to comprehend the subject matter. In such a scenario, students need to have time to reflect on the subject matter and explore the subject according to his/her pace of learning. The use of self learning material gives student a chance to study at his own pace in the absence of a teacher.

In present research, the researcher has used self learning material on one topic of the subject 'understanding and Developing the learner' based on 'Kohlberg's theory of moral development for B. Ed. students and studied its effectiveness.

1.2 Significance:

1. Self learning material will enable students to understand the concept rather than just memorization as there are many new

subjects like Philosophy, Psychology at B.Ed. level.

2. It will help students to learn at their own pace.

1.3 Title

"Preparation of self- Learning material on one unit of the subject 'understanding and developing the learner' for B. Ed. students and study its effectiveness"

1.4 Operational definition**Self learning**

Self learning is a self motivating process wherein the B.Ed. students learn to rely on his/her own self for understanding the subject without the help of a teacher, yet not leaving the framework of educational system.

Self-learning material

In this research, self learning could be defined as a written pictorial material with the aid of which the student can learn either by himself/herself or with the help of colleagues as required but without the help of a teacher.

Effectiveness

In the context of this research, effectiveness of self learning material is judged by the significant positive difference in marks obtained by the sample students in their pre-test and in post test after using the self learning material.

1.5 Objectives

- 1) To prepare the self learning material on one unit of the subject "Understanding and

Developing the Learner”. For B.Ed. students.

- 2) To study the effectiveness of self learning material in terms of achievement of the students.

1.6 Hypothesis

Directional hypothesis

As a result of learning through the use of self learning material on the selected unit in educational psychology, the students will score significantly higher marks in post test as compared to pre-test.

Null hypothesis

There is no significant difference in student’s pre-test and post-test scores in the achievement test as a result of learning through self learning material on the selected unit.

1.7 Scope and limitations

- 1) The present research is limited to the B.Ed students of SKNCOET,B.Ed. (W), Kusgaon, Lonavla affiliated to S.N.D.T. university.
- 2) It is limited to Marathi medium students.
- 3) It is limited to the ‘Kohlberg’s theory of moral development.

1.8 Method of research:

In the present research, experimental method has been used. Present research used pre-test post-test single group design. The design is represented as:

O₁ X O₂ (O₁ = Pre-test, X = treatment (self-learning material), & O₂ = post-test)

Variables in the present research were:

- Independent variable - Self learning material
- Dependent variable – Achievement

1.9 Tools of data collection

In present research, the researcher has used achievement test as the tools for data collection.

1.10 Statistics for data analysis:

‘t’ test was used to study the significance of the obtained scores.

1.11 Programme Implementation:

2. Pre-test was given to students.
3. Self learning material was given to students for 1hour everyday for 2days.

4. After the period was over, the material was taken back.
5. On the third day after the period, the booklets were given to students to learn according their own pace.
6. Post-test was taken.

1.12 Quantitative analysis

The quantitative analysis is done by

1. calculating significance of difference between mean (‘t’ test)

As the group is small (N=11 i.e.< 30), a procedure called difference method is followed.

(Garrett, 2006, p227)

The data is tabulated as:

Pre-test scores	Post-test scores	Difference	X	X ²
6	16	10	100	80
4	16	12	144	80
8	18	10	100	90
4	17	13	169	85
6	15	9	81	75
5	16	11	121	80
4	17	13	169	85
4	15	11	121	75
4	11	7	49	55
5	17	12	144	85
4	18	14	196	90
Total = 54	Total = 176	Total = 122		Total = 1349
		Mean = 11.09		

Mean_D = 11.09

$SD_D = \sqrt{354/11} = 11.25$

$SE_{MD} = \frac{11.25}{\sqrt{12}} = 3.25$

$t = \frac{11.5-0}{3.25} = 3.53$

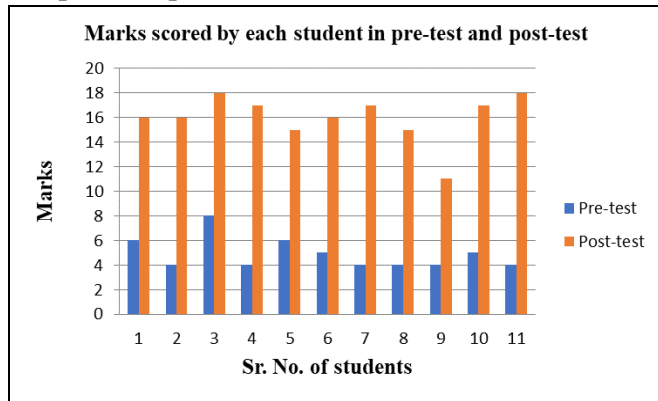
The calculated ‘t’ value (3.53) is greater than the table ‘t’ value (3.17) at df 10 at 0.01 level of significance.

The value of ‘t’ thus obtained is greater than the table ‘t’ value. This implies that the difference between pre-test and post-test means is significant at 0.01 level of significance. So, the null hypothesis is

rejected and directional hypothesis is accepted. Hence, it can be said that-

There is a significant increase in the post test mean achievement scores on the selected unit as compared to the pre test mean achievement scores at 0.01 level of significance, as a result using self learning material.

Graphical representation of scores



Observation:

1. The number of students who scored the marks 16 and above are 8.
2. The post-test scores are greater than the pre-test scores.

Interpretation:

8 students (72.7%) have scored minimum marks 16 (80%).

2. Calculating frequency.

The data obtained is presented in the table below.

Class interval	Frequency of Pre-test scores	Frequency of post-test scores
16-20	0	8
11-15	0	3
6-10	3	0
0-5	8	0
	N=11	N=11

Observation:

1. In class interval 16-20, frequency of the post test scores (8) is found more than the frequency of the pre-test scores (0).
2. In class interval 11-15, frequency of the post-test scores (4) is found more than the frequency of pre-test scores(0).
3. In class interval 6-10, frequency of the pre-test scores (3) is found more than the frequency of post-test scores (0).

4. In class interval 0-5, frequency of the pre-test scores (8) is found more than the frequency of post-test scores(0).

Interpretation:

It is observed from the difference in the frequencies of pre-test scores and post-test scores that in higher class interval (16-20, 11-15) the frequencies of post test scores(7& 4 respectively) is greater than the frequencies of pre-test score(0). In lower class interval (0-5, 6-10), the frequencies of pre-test scores (8&3 respectively) is greater/ more than the frequencies of the post-test scores (0).

1.13 Conclusion:

The effectiveness was studied by doing quantitative analysis. Quantitatively the results are found to be significant. This was seen through their achievement in the unit.

On the basis of statistical analysis of data, following conclusions could be drawn regarding the sample under consideration.

- 1) The use of self study material is very effective in terms of achievement.

Significance level	df	Comparison of means of pretest and posttest scores	Null hypothesis is rejected and directional hypothesis is accepted.
0.01	10	T table (3.17) < t cal (3.53)	

- 2) Frequency of the post test scores in higher class interval (11-15, 16-20) is 11 i.e. more than in lower class interval (1-5, 6-10) i.e. 0.

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