

EFFECT OF SIMULATED PRACTICE TEACHING ON TEACHING COMPETENCY OF STUDENT TEACHERS OF B. ED.



* Dr. Satishprakash S. Shukla,



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* Assot. Prof., Dept. of Education, Gujarat University, Navrangpura,

Since the establishment of National Council for Teacher Education (NCTE) various changes in teacher training programme have been witnessed. Practice teaching is given remarkable importance in B. Ed., as only it can make the student teachers tend to be perfect and competent teachers. Initially the student teachers are given practice of simulated teaching in which they have to teach other student teachers of their peer groups who act as secondary school's students. It is believed that such simulated practice teaching is very much helpful in developing confidence of the student teachers and to make them face different type of classroom situation effectively. But to find the answer of the question, that how much this simulated practice teaching would be helpful in developing teaching competency of student teachers, this study was carried out.

Introduction :

National Council for Teacher Education (NCTE) has been trying to improve the quality of teacher training courses all over the country. NCTE has, therefore, formed four regional committees, which are working from Bhopal, Jaipur, Bhubaneshvar and Bangalore. NCTE establishes the norms for recognising teacher training institutes and takes care of implementation of the norms and gives guidelines to run teacher training programme properly. According to those guidelines Gujarat University has introduced simulation lessons in B. Ed. course since June 2007 for practice teaching. Student teachers have to give these lessons in simulated conditions in peer group only. Different methods of teaching have been focused in such lessons. Its ultimate aim is to make the students be familiar with various teaching methods and to make them use such methods in classroom teaching effectively. Microteaching is one another type of practice in teacher training programme through which various teaching skills of student teachers are to be developed. Teaching skills enables them to control and / or use their teaching behaviour to make the teaching learning process more effective and fruitful. The student teachers have to give simulation lessons and microteaching lessons in their peer group and in simulated condition before going to give their lessons in real school situation. Such lessons provide the opportunity to student teachers to master some of the teaching skills and teaching methods before facing real classrooms of the schools. Generally, the student

teachers are given practice of microteaching and simulation lessons in front of their peer group only in the beginning of training. After that they are allowed to give their lessons in real classroom situation. This way, in teacher training programme, teaching competency of the student teachers is developed gradually. The main objective of any teacher training programme is to provide competent, innovative and responsible teachers to the society. Simulation lessons and microteaching both are helpful in developing teaching competency of the student teachers. But, it is a big question that out of these two which type of lessons are more effective in developing teaching competency. To find the answer of this question, the investigator has decided to work on the following subject.

Statement of the Problem:

Effect of simulated practice teaching on teaching competency of student teachers.

Rationale of the Study:

NCTE provides guidelines to frame the curriculum in such a way that uniformity in syllabi of B. Ed. can be maintained all over the country. Since the establishment of NCTE, criteria related to the admission, appointment of teacher educators, infrastructure, number of practice teaching and related to curriculum keep changing. NCTE's main motive is to improve the quality of teacher training programme all over the country. The main objective of teacher training programme is to provide competent teachers to the society. B. Ed. is also a teacher training programme, in which student teachers are

trained to make them competent teachers for secondary or higher secondary schools. Various theories related to teaching learning process and whole education system are taught in depth in during the training period of student teachers. Besides this, the course makes the student teachers understand and apply all the theories related to educating the students at secondary or higher secondary level. Mostly practice teaching starts with micro lessons followed by simulation lessons with a view to making the students acquire some teaching skills and to make them use different teaching methods in simulated conditions. Micro lessons and simulation lessons are based on different theories of training and teaching learning process. It is a fact these both lessons are very much useful in developing confidence of the student teachers. But out of these two which is more effective in developing teaching competency of the student teachers is a question to be answered so that it can be clarified that which type of simulated lessons should be given more importance and which type of the lessons need more attention for improvement.

Definitions of the Terms:

Different terms were defined as under for the study.

Simulated Practice Teaching : A lesson to be given by the student teachers in simulated condition. The student teachers have not to give this type of the lesson in the class of real students of secondary schools, but they have to give such lessons in the class in which only student teachers act as the students of secondary schools. Student teachers of Gujarat University have to give Microteaching Lessons and Simulations Lessons in simulated conditions.

Microteaching : Microteaching is a lesson that is based on any teaching skill in which such a part of any unit is to be taught to the students that can be completed in 6 minutes time against only 6 to 10 student teachers who act as the students. In microteaching, focus is given to acquire skill rather than any other aspect. The teaching skill is a set of interrelated behaviours of the teacher, which can be done by the him/her in classroom teaching. It is believed and supported by the researches that there are nearly 2000 behaviours, which can be done by the teachers in classroom teaching.

Simulation Lessons : Simulation lesson is another type of the lesson, which student teacher has to give for practice. In such type of the lessons more focus is given on method of teaching to be used and mastered by the student teachers. These lessons are also given against the student teachers who act as the students of secondary school. The quantity of teaching point in such a type of lesson is more than the quantity of the lessons given in microteaching. The lesson is to be given in 10 to 15 minutes.

Student Teachers of B. Ed.: The students who are being trained in colleges of education which offer course of B. Ed.

Teaching Competency : A set of expected behaviours of a teacher to make the related to lesson planning, introduction of unit, teacher's personality, presentation of the unit, interaction with the students, end of the lesson, evaluation of the students and classroom management and which make the classroom teaching effective and fruitful is known as teaching competency. The score obtained by the student teachers in Teaching Competency Scale would be considered as teaching competency of student teachers for this study.

Variables :

Variables selected for the study were as under :

Independent Variables : 1. Simulated Practice Teaching (SPT): SPT has two levels say (a) Microteaching – MT, (b) Simulation Lesson – SL.

2. Academic Qualification (AQ) : AQ has two levels say (a) Graduate – Gr., (b) Post Graduate – PG.

Objectives of the Study:

1. To study the effect of practice teaching on teaching competency of the student teachers. 2. To study the effect of the academic qualification of the student teachers on their teaching competency. 3. To study the effect of interaction among independent variables on teaching competency of student teachers.

Hypotheses of the Study :

H_{O_1} There will be no significant difference between mean teaching competency scores of teacher trainees having practice teaching of microteaching and simulation lesson. H_{O_2} There will be no significant difference between mean teaching competency scores of graduate student teachers and post graduate student teachers. H_{O_3} There will be no significant effect of independent variables on mean teaching competency scores of student teachers.

Method of the Study :

Experimental method was adopted to know the effect of practice teaching on teaching competency of student teachers.

Limitations of the Study :

1. This study is limited to the student teachers of Gujarat University. 2. Student having practice teaching of eight micro lessons and four simulation lessons were selected in sample.

Population and Sample of the Study :

Population of the study consists of student teachers belonging to Gujarat University. The sample of the study was selected from one college of education affiliated to Gujarat University. First of all, the student

teachers were divided in two groups by matching pair method. The merit scores of the student teachers calculated by the admission committee of the university for their admission in B. Ed. were considered for matching each pair of student teachers. Then each group was divided in two groups again according to their qualification. This way the student teachers were divided in four strata as shown in table – 1. At last, eight

Presentation of the lesson, Interaction with the students, End of the lesson and Evaluation. Each behavior is to be measured in five point scale. These points are Not Done, Very Poor, Poor, Good and Very Good and these points assigned 0, 1, 2, 3 and 4 marks respectively. Thus the score of the teacher trainees in Teaching Competency Scale may vary from '0' to '248'.

Procedure of the Study :

First of all MT group were given practice of micro lessons and SL group was given practice of simulation lessons. The skills selected for micro lessons were Probing by Questioning, Fluency in Questioning, Set-Induction, Black-Board Skill, Stimulus Variation, Illustration with Examples, Reinforcement and Skill of Explaining. The

Table – 1
Sample of the Study

SPT	Microteaching		Simulation Lesson	
	Gr.	PG	UG	PG
AQ	8	8	8	8
No. of Teacher Trainees	8	8	8	8
Total	16		16	

Table – 2
Bartlet's Test of Homogeneity of Variance

Particulars	Value	Particulars	Value	Particulars	Value	Particulars	Value
$\sum xk^2$	2226.5	$\sum \log sk^2$	7.35	$k \log sk^2/k$	7.60	χ^2	4.11
$\sum sk^2$	318.07	$\log sk^2/k$	1.90	Difference	0.25	Correction	1.09
						χ^2 Corrected	3.77
						df	3

Table – 3
N, $\sum x$, $\sum x^2$ and Mean at the Level of Independent Variables

AQ (B)	MT (A ₁)		SL (A ₂)		Total			
SPT (A)	Gr. (B ₁)	PG (B ₂)	Gr. (B ₁)	PG (B ₂)	MT	SL	Gr.	PG
Group	A ₁ B ₁	A ₁ B ₂	A ₂ B ₁	A ₂ B ₂	(A1)	(A2)	(B1)	(B2)
N	8	8	8	8	16	16	16	16
$\sum x$	1317	1323	1259	1263	2640	2522	2576	2586
$\sum x^2$	217879	219095	198697	199689	436974	398386	416576	418784
Mean	164.63	165.38	157.38	157.88	165.00	158	161.00	161.63

two groups of graduate student teachers and of two groups of post graduate student teachers. The calculated t values were 1.34 and 1.07 respectively which are less than t table value 2.13 required for significance at 0.05 level of significance for df = 14. It means two groups of graduate student teachers and two groups of post graduate student teachers were homogeneous. Then t value was calculated for mean merit scores of MT group and SL group. The calculated t value was 1.26 which was less than 1.96 that is required at 0.05 level of significance. That shows that both the groups were homogeneous.

Tool of the Study :

Self prepared Teaching Competency Scale was used for the study. The investigator has enlisted 79 behaviours of the teacher belonging to different aspects of teaching. Then, with the help of experts and teacher educators, 62 behaviours were finalized to be included in final teaching competency scale. These behaviours were classified in seven parts say, Lesson planning, Introduction of unit, Teacher's Personality and behavior,

methods were to be selected by the student teachers according to the units of teaching. Then they were asked to give full lesson in full time of one period in real classroom situation. They were given the unit to be taught in a period before a day of lesson. Their lessons were

then observed by teacher educators in real classroom conditions according to teaching competency scale.

Data Collection and Analysis :

Each of the student teachers selected in sample was asked to give one lesson in their subject in real school situation. The student teachers were given unit of teaching two days before their teaching. Lesson of each student was observed by teacher educators according to the teaching competency scale. As it was decided to do Analysis of Variance (ANOVA), first of homogeneity of variance was checked by Bartlet's Test of Homogeneity of Variance as shown in **See table – 2**. Observed χ^2 3.77 is less than 7.82 that is required for significance at 0.05 level that shows that homogeneity of variance is maintained. Therefore ANOVA was done to test the hypotheses. On the basis of raw scores obtained by the teacher trainees in teaching competency scale, some basic calculations were done to do ANOVA as shown in **table – 4**.

Study of Hypothesis:

The hypothesis were tested with the help of ANOVA as discussed below.

Analysis of Variance

Source of Variation	Sum of Squares	df	Mean Square	F
Simulated Practice Teaching – SPT (A)	435.125	1	435.13	5.47
Academic Qualification – AQ (B)	3.13	1	3.13	0.04
SPT (A) × AQ (B)	0.13	1	0.13	0.002
Error- Within Treatment	2226.50	28	79.52	
Total	2664.88	31		

Study 1 :

F_{cal} for simulated practice teaching was 5.47 as shown in table-4, which was greater than $F_{tab} = 4.17$ at 0.05 level of significance so the null hypotheses that “There will be no significant difference between mean teaching competency scores of teacher trainees having practice teaching of microteaching and simulation lesson.” was rejected and it was concluded that teaching competency of the student teachers having practice of micro lessons would be better than that of the student teachers having practice teaching of simulation lessons.

Study 2 :

F_{cal} for academic qualification was 0.04 as shown in table-4, which was smaller than $F_{tab} = 4.17$ at 0.05 level of significance so the null hypotheses that “There will be no significant difference between mean teaching competency scores of graduate student teachers and post graduate student teachers.” was accepted and it was concluded that graduate post graduated student teachers have the same teaching competency

Study 3 :

F_{cal} for interaction between simulated practice teaching and academic qualification was 0.002 as shown in table-4, which was smaller than $F_{tab} = 4.17$ at 0.05 level of significance so the null hypotheses that “There will be no significant effect of interaction between simulated practice teaching and academic qualification” was accepted and it was concluded that there would be no significant effect of interaction between simulated practice teaching and academic qualification of student teachers on their teaching competency.

Findings :

On the basis of the study of null hypotheses, findings of the study are as follows of the student teachers having practice teaching of micro lessons is better than that of student teachers having practice teaching of simulation lessons. 2. Teaching competencies of graduate and post graduate student teachers are the same. 3. Teaching competencies of graduate and post graduate practice teaching of the student teachers having practice teaching of micro lessons and having practice teaching of simulation lessons are equal.

Implications of the Study :

Findings of the study make it clear that micro teaching is more helpful than simulation lessons in developing teaching competency of the student teachers of B. Ed. Though this study has been done on small sample, it leads us to think about to make microteaching more extensive. In teacher training institutes affiliated to Gujarat University, only four microteaching skills mentioned in the syllabus are taught. But now it is a time to think over the inclusion of more skills in the syllabus. Every teaching skill is a set of teacher’s particular teaching behaviours. Each teaching behaviour of the student teacher is given special attention during micro lesson and evaluated precisely by the observer and other student teachers who play the role of the secondary students or who observe the lessons. Such attention and evaluation enable the student teacher to modify and improve teaching behavior in positive way. The most important thing of micro teaching is that the student teacher is to be allowed to give micro lesson repeatedly until he/she will master the skill and get control of all the behaviours required to develop particular skill. After acquiring various skills, it will be easier to understand and apply different methods of teaching. Therefore, though, simulation lessons have their own importance in developing teaching competency of the student teachers, micro lessons must be given more importance in B. Ed.

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