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RESEARCH ARTICLE

DEVELOPING TEACHING SKILLS THROUGH MICROTEACHING

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ABSTRACT

Qualitative education plays an important role in technological advancement. Therefore, to prepare competent teachers, teaching technology has developed pre-service and in-service teacher education programmes. In order to make teacher education programme effective and to bring qualitative improvement, a need is felt to investigate the training of teaching skills at the micro level and teaching performance of student-teachers. The study envisages the effect of microteaching training in classrooms on teaching performance of student-teachers using pre and post experimental design. From the target population of student-teachers, a sample of 248 student-teachers enrolled during the academic year 2012-2013 at NKT National College of Education for Women, Chennai is chosen. From the statistical analysis, it is concluded that the post-training performance of teaching is significantly better than the pre-training performance of teaching of students both in B.Ed. and B.Ed. in Special Education. Hence, it is evident that microteaching training technique has a positive influence on the teaching performance of student-teachers. The gain scores of the teaching performance of student-teachers in B.Ed. and B.Ed. in Special Education courses did not differ significantly, revealing that the student-teachers in both the courses gained to the same extent because of their exposure to microteaching.

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INTRODUCTION

Qualitative education plays an important role in technological advancement. Therefore, to prepare competent teachers, teaching technology has developed pre-service and in-service teacher education programmes. Previously, it was thought that teachers are born and not made but recent researches in this field have proved that efficient and competent teachers can be produced by modifying their behaviour. The purpose of the teacher education programmes is to prepare effective and competent teachers. It is now, generally realized that researches must be directed towards the improvement of present day teacher education programmes. The minimum requirement of any teacher training programme is that it should enable the trainee to acquire the basic skills and competencies of a good teacher. The National Commission on teachers and Central Ministry of Education in its document 'Challenge of Education – A Policy perspective' have pointed out that much of teacher education is irrelevant even to contemporary requirements, leave alone those of the future. With regards to supervised student teaching, it is generally assured that during this period the student teacher will develop proficiency in basic teaching skills and classroom management, and with it, the confidence in his new role. Research in teaching and teacher behaviour in India has for long been conducted by standing outside the classrooms and therefore study of actual classroom behaviour of teachers has been neglected. Teacher performance is the most crucial input in the field of education. Whatever policies may be laid down in the ultimate analysis they have to be interpreted and implemented by teachers as much through their personal examples as through the teaching learning process. Teacher training too is not planned and organized to develop the spirit of inquiry, initiative, scientific temper, manual dexterity, conceptual clarity and linguistic skills for effective speaking and writing which teachers are expected to impart to their students. It has been observed that teachers are over loaded with theoretical

portions but do not have the necessary competencies to translate these into action. The gap between theory and practice is proverbial. Interaction analysis based on practice teaching, training in teaching skills using microteaching approach and simulated teaching exercise are some of innovative technologies through which effective training programs can be transacted. The present mode also pointed out that among these technologies, the major emphasis is on the use of microteaching in Indian situation for developing the required skills of teaching at the mastery level.

Hence in order to make teacher education programme effective and to bring qualitative improvement, a need is felt to investigate the training of teaching skills at the micro level and teaching performance of student-teachers. A pre-requisite to a scientific study of any phenomenon is a conceptual framework that will permit the researcher to understand and eventually predict the arousal, direction and persistence of the behaviour. The two important aspects of the present investigation are concept of teaching competency and concept of microteaching. Teaching is a complex art of guiding students through a variety of selected experiences towards the attainment of appropriate teaching-learning goals. Several innovations have been designed to strengthen the programmes of student teaching. Microteaching is one of the recent ones. It is relatively a new departure in teacher training. The term microteaching was first coined in 1963, but the concept has never been a static one. It continued to grow and change and developed both in focus and format. Microteaching is a laboratory technique of teacher training in which the complexities of normal class room teaching are simplified. It is described as a 'Scaled down teaching encounter in class size and class time' (Allen and Ryan, 1969). This training technique provides teachers an excellent opportunity to improve their teaching skills and follows the Skinners' Theory of Operant Conditioning and it also has a scientific basis (Passi, 1976). Knowledge acquisition, skill acquisition, and transfer are the three different phases of microteaching (Passi, 1976). Knowledge acquisition phase is the preparatory, pre-active phase, in which the teacher gets trained on the skills and components of

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teaching through lectures, discussion, illustration, and demonstration of the skill by the experts. In the interactive, skill acquisition phase, the teacher plans a micro-lesson for practicing the demonstrated skills. Ultimately, they can integrate and transfer these learned skills from simulated teaching situation to real class room teaching (Passi and Shah, 1976). Adequate and appropriate constructive feedback for each skill can encourage re-teaching and re-implementing of the skill. The entire faculty play dual role of trainee and constructive evaluators. This also improves the evaluating skills of teacher. The objectives of the present study are as follows:

- (i) To investigate if there is any significant difference between pre and post-training teaching performance of student-teachers in B.Ed. Course;
- (ii) To investigate if there is any significant difference between pre and post-training teaching performance of student-teachers in B.Ed. in Special Education Course; and
- (iii) To investigate if there is any significant difference between gain scores of teaching performance of student-teachers in B.Ed. and B.Ed. in Special Education Courses.

Review of Related Literature

Microteaching, a teacher training technique currently practiced worldwide, provides teachers an opportunity to perk up their teaching skills by improving the various simple tasks called teaching skills. The study conducted by Copeland (1977) explored possible relationships between the intervention behaviors of cooperating teachers and classroom exhibition by student teachers of skills acquired in microteaching training. Sixty-one teaching credential candidates engaged in student teaching were randomly assigned to positive and negative levels of three variables including microteaching training, training in supervision received by subjects' cooperating teacher, and tendency of subjects' cooperating teacher to exhibit the target teaching skill. The data, composed of frequency counts of subjects' exhibition of the target skill in the classroom as recorded eight to twelve weeks following training, were analyzed using three-way ANOVA. Significant interaction effects were observed. The study conducted by Simbo (1989) sought to ascertain whether the classroom performance of student teachers differs significantly according to whether or not they are exposed to microteaching. A stratified random sample of 20 year II social studies student teachers was randomly assigned to two equal groups. One group was exposed to a mini microteaching programme, which ran concurrently with the teaching practice exercise, while the second group was not exposed to microteaching. The teaching performances of the two groups were observed in the actual classrooms, by three independent assessors, before and after the microteaching. The means of the aggregate means of these two groups were compared using the *t*-test of significance. It was found that while there was no significant difference between the performances of the two groups on the pre-microteaching observation scores, there was a significant difference between them on the post-microteaching observation scores, in favour of the microteaching group. The study designed by Shah and Masur (2011) intended to see the impact of microteaching skills learned through different in service training programs on the performance of the elementary school teachers. The sample of the study consisted of 210 elementary teachers (105 with in-service training and 105 without in-service training). The study concluded that in-service trained teachers utilized microteaching skills hence their performance was comparatively better. The dearth of studies in the Indian context and the influence of the variable, microteaching training technique on teaching performance of student-teachers, who are going to be the future teachers, requires a much deeper investigation and so the initiation of the present study.

Research Design

The study envisages the effect of microteaching training in classrooms on teaching performance of student-teachers using pre and post experimental design. This training is conducted over four weeks

in the academic year 2012-2013 in NKT National College of Education for Women, Chennai. First a pre-training teaching performance of student-teachers at the entry level is assessed and scored. Next, the student-teachers are oriented on teaching, teaching skills and the need for microteaching training. All the components of microteaching are explained clearly with demonstration. Next, drawing on relevant research, all activities are developed by the researcher. Lesson plans and observation schedule with rating scale for the microteaching classes are prepared by the student-teachers under the supervision of teacher educators. In the next step, the students are made to practice one skill at a time, in the presence of peer group, under the supervision of the teacher educators following all procedures of microteaching training techniques. After the completion of the training programme a post-training teaching performance of student-teachers is assessed and scored.

Variables

The variables chosen for investigation in the study are microteaching training (Independent) and teaching performance of student-teachers (Dependent).

Selection of the Sample

From the target population of student-teachers, 248 student-teachers (226 B.Ed. and 22 B.Ed. in Special Education) enrolled during the academic year 2012-2013 at NKT National College of Education for Women, Chennai is chosen as sample for the present study.

Research Tool Used

The evaluation of the teaching performance of student-teachers both at the pre and post-training stages is based on the following criteria:

- (i) Lesson Plan: instructional objectives, content, choice of techniques and aids (25 marks)
- (ii) Teaching-learning situation: motivation and development of the lesson (45 marks)
- (iii) Use of teaching aids: use of blackboard, use of other aids and activities incorporated (25 marks)
- (iv) Questioning: structure, simplicity and manner of questioning (10 marks)
- (v) Classroom management: discipline and classroom climate (15 marks)
- (vi) Personality of Teachers: appearance and manner, voice and speech (15 marks)
- (vii) Evaluation: realization of objectives and follow-up work (15 marks)

The rating is done on a five point scale Likert Scale, the scores ranging from 30 to 150. Lower scores indicate lower level of teaching performance and higher scores indicate higher level of teaching performance of student-teachers. The scores are converted to percentage and taken up for analysis.

RESULTS AND DISCUSSION

The present study envisages the effect of microteaching training in classrooms on teaching performance of student-teachers using pre and post experimental design. First a pre-training performance of teaching of student-teachers at the entry level is assessed. Next the microteaching training is conducted and later the post-training performance of teaching is assessed. From the statistical analysis, it is concluded that the post-training performance of teaching is significantly better than the pre-training performance of teaching of students both in B.Ed. and B.Ed. in Special Education (Table 1 and Table 2). Hence, it is evident that microteaching training technique has a positive influence on the teaching performance of student-teachers. The gain scores of the teaching performance of student-teachers in B.Ed. and B.Ed. in Special Education courses did not differ significantly, revealing that the student-teachers in both the

Table 1. Statistical Analysis of Means of Pre and Post-training Teaching Performance of B.Ed. Student-teachers

Variable	Sample Size	Mean	SD	SEM	SED	CR
Pre-training	226	52.54	5.23	0.35	0.65	29.30**
Post-training	226	71.71	8.33	0.55		

**Significant at 0.01 level Legend: SD-Standard Deviation SEM-Standard Error of Mean SED-Standard Error of Deviation CR-Critical Ratio

Table 2. Statistical Analysis of Means of Pre and Post-training Teaching Performance of B.Ed. in Special Education Student-teachers

Variable	Sample Size	Mean	SD	SEM	SED	CR
Pre-training	22	51.45	4.82	1.03	1.86	10.06**
Post-training	22	70.14	7.26	1.55		

**Significant at 0.01 level Legend: SD-Standard Deviation SEM-Standard Error of Mean SED-Standard Error of Deviation CR-Critical Ratio

Table 3. Statistical Analysis of Means of Gain Scores of Teaching Performance of B.Ed. and B.Ed. in Special Education Student-teachers

Variable	Sample Size	Mean	SD	SEM	SED	CR
B.Ed.	226	19.17	8.27	0.55	1.83	0.27 ^{NS}
B.Ed. in Special Education	22	18.68	7.44	1.59		

NS – not significant Legend: SD-Standard Deviation SEM-Standard Error of Mean SED-Standard Error of Deviation CR-Critical Ratio

Table 4. Mean and Standard Deviation of Gain Scores of Teaching Performance of B.Ed. and B.Ed. in Special Education Student-teachers in different Optional Subjects

Variable	Sample Size	Mean	SD
Tamil	13	16.23	10.29
English	59	13.51	6.60
Mathematics	63	19.06	6.51
Physical Science	36	23.33	7.85
Biological Science	22	26.55	5.76
Economics	16	22.75	7.32
Computer Science	16	20.56	4.44
Commerce	16	19.12	9.51
History & Geography	7	15.86	10.62

Legend: SD-Standard Deviation

courses gained to the same extent because of their exposure to microteaching (Table 3). On looking into the gain scores of student-teachers in different optional subjects, it is seen that the maximum gain in teaching performance was benefitted by the student-teachers in Biological Science optional (Table 4). Thus it is beyond doubt that microteaching training techniques definitely supplements the existing student teacher training programme.

Suggestions for Further Research

Some studies may be undertaken to throw more light on the promise of technique and its use in improving teaching competence and integration of skills in pre-services as well as in-service teachers. Some studies can be conducted to increase efficiency of the technique in terms of economizing inputs, or in terms of improved output and in term of training effects and their retention.

Summary and Conclusion

Preparing an effective teacher today is a challenging task. Unless the student-teacher can deliver instruction effectively, his training is of no use. Microteaching is one of the innovations designed to strengthen the teacher training programme. The dearth of studies in the Indian context and the influence of the variable, microteaching training technique on teaching performance of students and especially in the case of student-teachers, who are going to be the future teachers, requires a much deeper investigation and so the initiation of the present study. It is evident from the present study that microteaching training technique has a positive influence on the teaching performance of student-teachers. The present study is limited to pre-service teachers only. Future studies can be extended to improving the teaching competencies and assessment of teaching skills in-service teachers also. Studies can also be carried out to increase the efficiency of the existing technique.

Children learn without teaching in their natural environment, but teachers arrange special contingencies which expedite learning and hastening the appearance of behaviour which would otherwise be acquired slowly or making scene of the appearance of behaviour which might otherwise never occur (Skinner, 1968). It may not be wrong to say that in such defective practical and theoretically overloaded teacher education programme, the trainee remains almost at the same level in his teaching competence even after training. To improve the skills in teaching and to help student-teachers emerge as effective and competent teachers, microteaching teacher training technique is essential.

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