CHAPTER IV:

CONCLUSIONS AND IMPLICATIONS

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4.1 INTRODUCTION

This chapter presents the conclusions drawn from the research findings and the implications of the study. It also suggests the areas in which further research can be conducted.

The main concern of the study is to develop the self-instructional material in the form of audio-cassettes for certain skills and then to find out how far the self-instructional audio-cassettes can be helpful in developing the teaching skills among student-teachers and thereby increasing their general teaching competence.

In the previous chapter the tabulisation, analysis and interpretation of data was done and on the basis of the results and findings conclusions were drawn which are given in the following pages:-

4.2 MAJOR FINDINGS:

The major findings of the study are as under:-

1. So far as the general teaching competence of student-teachers of the experimental group at pre-test stage is concerned 12.50 percent student-teachers can be termed as high and 18.75 percent can be termed as low in performance. About 68.75 percent of them fall in the average category so far as their performance on the BGTC scale is concerned.
2. As regards the general teaching competence of student-teachers of the control group at pre-test stage the mean score is found to be 33.19. About 75 percent student-teachers fall in average category so far as their teaching competence is concerned. The performances of 6.25 percent student-teachers may be termed as high whereas 18.75 percent of them fall in the low category.

3. As far as the general teaching competence of student-teachers of the experimental group at post-test stage is concerned 18.75 percent of student-teachers can be termed as high, 6.25 percent as low in their performance on the BGTC scale whereas 75 percent student-teachers fall in average category so far as their general teaching competence is concerned.

4. In the control group 12.50 of student-teachers show high level of teaching competence at post-test stage, 81.25 percent student-teachers fall in the average category whereas 6.25 percent of them can be termed as low in performance on the BGTC scale.

5. In the skill of probing questioning it was found that the student-teachers maintained progress from C1 to C3 both componentwise and as a whole in both the experimental groups.
6. In the skill of explaining it was found that the student-teachers maintained progress from 01 to 03 both componentwise and as a whole in both the experimental groups.

7. It was found that in the skill of illustrating with examples the student-teachers maintained progress from 01 to 03 in both the experimental groups.

8. The 't' value of the difference of mean scores of the performance of 16 student-teachers on the observation schedules of the skill of probing questioning at pre-test and post-test stages has been calculated to be 11.21 which is significant both at .05 and .01 levels.

9. The 't' value of the difference of mean scores of 16 student-teachers in the skill of explaining at pre-test and post-test stages has been calculated to be 18.08 which is significant both at .05 and .01 levels.

10. The 't' value of the difference of mean performance of 16 student-teachers on the observation schedule of the skill of illustrating with examples at pre-test and post-test stages has been calculated to be 14.38 which is significant both at .05 and .01 levels.

11. The 't' value of the mean scores of the performance of 16 student-teachers of the experimental group on the BGTG
scale at pre-test stage and post-test stage has been calculated to be 8.04 which is significant both at .05 and .01 levels.

12. The 't' value of the mean scores of the performance of 16 student-teachers of the control group on the BGTC scale at pre-test stage and post-test stage has been calculated to be 3.78 which is significant both at .05 and .01 levels.

13. The 't' value of mean scores of the performance of student-teachers on the BGTC scale of the control and the experimental groups has been calculated to be 6.69 which is significant both at .05 and .01 levels.

14. The 'f' ratio of the variable SIAC calculated by analysis of co-variance is found to be 50.66 which is significant both at .05 and .01 levels.

15. The 'f' ratio of both the treatments as calculated by analysis of co-variance is 38.68 which is significant both at .05 and .01 levels.

16. The 'f' ratio of the variable interaction is found to be 31.45 which is significant both at .05 and .01 levels.

4.3 **Conclusions:**

On the basis of the above findings the following conclusions can be drawn:

1. The effect of SIAC synchronized with microteaching has been calculated skillwise and as a whole. It was found
that progress has been maintained and training in different skills brought continuous progress in the performance of student-teachers. This shows that SIAC help in developing certain teaching skills among student-teachers and thus increase the general teaching competence of student-teachers. So we can say that the student-teaching programme should be restructured and be made skill oriented. Skill based theory lectures should be delivered through audio-cassettes which make a strong base for teaching skills. Suitable self-instructional material in the form of audio-cassettes should be prepared on a large scale and may be made available to student-teachers as the first exposure to skills in teaching. Only then they should go to actual classrooms for getting practice in all the possible skills.

The traditional technique of teaching also helps in bringing continuous progress in the performance of student-teachers. This shows that traditional technique of teaching can also be used effectively for increasing the general teaching competence of student-teachers. The present result does not support the commonly believed assumption that traditional technique of training student-teachers is not very effective. Rather in case of this study it is established that traditional technique of
training student-teachers is also effective. Perhaps by designing the traditional student-teaching programme on a more scientific basis, the capacity of this technique to produce effective classroom teachers can be enhanced.

Another conclusion of the study is that both techniques of training, traditional as well as microteaching, are found to be effective in improving general teaching competence. The experimental group which was exposed to both the methods showed better performance as compared to the control group which was exposed only to the traditional technique. This provides a direction for restructuring the student-teaching programme. There is no need to abandon the present practice of training student-teachers, it only needs to be supplemented with the microteaching technique. This integration of both the techniques of training is likely to provide a strong base for strengthening the student-teaching programme and ultimately improving the quality of teacher education in India.

In the present study the skills were developed among the student-teachers in simulated conditions but the effectiveness of the training of these skills was tested in the real classroom situations. The results show that the student-teachers could effectively integrate these teaching skills in their actual classroom teaching. So, it is clear that the use of SIAC in
microteaching setting is not confined only to simulated conditions but it has a positive transfer value in the actual classroom situations. The study has established the functional utility of SIAC when student-teachers, though trained in simulated conditions, made use of different skills in an integrated manner in actual classroom situations. This means that microteaching technique has the inherent capacity to become an integral part of the student-teaching programme in particular and teacher education in general.

The study proved that immediate, pin-pointed and self-feedback through audio-cassettes is an effective way of improving the performance of student-teachers in the use of different teaching skills in their teaching process and thus increasing their general teaching competence. We should rethink about the process of providing feedback in the traditional technique of student teaching and instead of providing global feedback pin-pointed and immediate feedback should be given and the student-teachers should also be oriented for getting self-feedback through audio-cassettes. In this way we can improve our student teaching programme and colleges of education will be able to produce effective teachers.

4.4 IMPLICATIONS:

The present enquiry emphasises the student-teaching aspect in the programme of teacher preparation. This aspect
of training has been considered one of the weakest
links in teacher preparation. Many efforts are being
made to improve the teacher training programme. These
efforts are made for deciding the number of student
teaching lessons and the number of demonstration lessons,
the format of lesson plans, aspects of supervision,
evaluation and grading and for deciding organisational
aspect of student teaching. These aspects are, no
doubt, important but basically they do not touch the
most important aspect, namely how to develop the teaching
skills in the programme of student-teaching. By and large
the criterion for teaching effectiveness has remained
of a global nature and therefore it has remained vague.
The most important basis of present study is that it has
accepted the analytical view of teaching. According to the
present study, teaching consists of a number of teaching
skills scientifically identified and on which there is more
or less a general consensus. So present student teaching
programme should be restructured and be made skill oriented.

A second implication of the present study is the
promise it provides to teacher educators on the basis of
empirical evidence that it is possible to adopt an innovative
approach to the development of teaching skills. The innovative
The approach experimented upon in the present study is the use of self-instructional material in the form of audio-cassettes. The SIAC have been developed based on Indian classroom phenomena. The materials are simple, self-explanatory, easy to understand, with episodes and model lessons drawn from classroom life in Indian conditions. The material of SIAC is synchronised with microteaching technique. This technique has its origin in U.S.A., where it was developed with the help of modern electronic gadgets. But in the present study the technique has been adapted to Indian conditions. No electronic gadgets are involved except audio-cassettes. Microlesons were carried out in simulated conditions using the peer group as students. Self-feedback was provided by replaying the microlesons and observation schedules were used for feedback. This observation system is very much known to our teacher-educators in our teacher education programme. It is, therefore, not difficult for our teacher-educators to develop competency in observing specific teaching skills. So teaching skills and general teaching competence should be developed with the help of self-instructional audio-cassettes in microteaching setting. This major implication will bring about a major breakthrough in student teaching programme.
The use of cassettes may be implied for making student-teaching need-based and individualized. All the student-teachers are not of the same intellectual level. Some can gain competency easily, whereas others cannot gain the expected level of competency, even after regular teaching. The use of SIAC in simulated conditions of microteaching setting can prove to be an effective training technique for the latter group.

Since it is found in the present study that the use of SIAC synchronized with microteaching in simulated conditions is more effective than the traditional technique of student-teaching in developing teaching skills, student-teachers can be trained through microteaching approach using SIAC, especially in simulation for the development of teaching skills. This solves many of the administrative problems faced by colleges of education in arranging for teaching practice in schools. This, however, does not mean that a teacher training programme should train student-teachers in a set of specific, but isolated teaching skills. The student-teachers should be given opportunity to integrate those skills in normal school conditions. With the training in simulated conditions the student-teachers develop the confidence to teach before they go to schools for teaching practice. When the school
principals know about these efforts of the colleges of education they happily accommodate them in their schools. Thus this new approach provides one solution to re-establishing rapport between the secondary schools and colleges of education.

Suitable self-instructional materials in the form of audio-cassettes and/or handbooks should be prepared for the remaining teaching skills. These materials should be developed on a large scale and may be made available to student-teachers as the first exposure to skills in teaching. This should be undertaken by training institutions of the states, universities, and other national organisations. The training institutions should develop models either symbolic or audio or filmed depicting the use of different skills in the context of the Indian classrooms.

Implication of the present study can be thought of from a school teacher's point of view. When teachers are made conscious of their deficiencies in the teaching skills and further trained in those skills, there is going to be a long-run effect in the general methods of teaching and improvement in the teaching learning process in the classroom. For this purpose workshops and seminars should be arranged at state and national levels. Even the schools in the same neighbourhood jointly may undertake the venture of improving
the teaching skills of their own teachers. This indirectly speaks of the utility of self-instructional audio-cassettes developed in the present study and the need for developing similar ones for other teaching skills identified so far.

The study also has implications for in-service training programmes, where, perhaps, practice-teaching aspect is neglected. Teachers can be trained in various teaching skills through audio-cassettes when they meet in summer. With the help of audio-cassettes they can train themselves in practising and integrating those skills in normal classroom conditions.

4.5 SUGGESTIONS

Based on this study the following suggestions are made for further research:

1. Since the administrative difficulties did not permit validation of self-instructional material in the shape of audio-cassettes for each skill developed in the present study on a separate sample, revalidation of the cassettes may be taken up for overcoming this limitation.

2. The instructional materials developed may be translated into regional languages and validated later on in a similar way as is done in the present study.
3. The SIAC may be developed and validated for other teaching skills identified.

4. The validation of the developed cassettes can be done, synchronising them with microteaching, by bringing variations in the components of the latter.

5. A follow-up research is needed to find out to what extent the skills developed through SIAC in simulated conditions are sustained over a period of time in the colleges of education and in school-teaching where the teachers join after their training.

6. Comparative study of the groups—one equated and the other taken randomly—may be taken up to enquire into the effectiveness of SIAC.

7. Similar study can be conducted while using audio-video tapes to inquire into the effectiveness of self-instructional material in the form of audio-video cassettes.