CHAPTER VII

FINDINGS, CONCLUSIONS AND SUGGESTIONS

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The investigation was taken with a view to find out the impact of Perceptual, Symbolic and Audio Modelling in Microteaching upon G.T.C. of pupil-teacher and its impact upon the Academic-Achievement of students. In the beginning sample was consisted of 168 B. Ed. students out of which 84 B. Ed. students from Acharya Narendra Dev College, Kanpur, were enrolled for B. Ed. in 1982-83 and 84 male students from Vikramjeet Singh Sanatan Dharma College, Kanpur were enrolled for B. Ed. in 1983-84. Due to statistical problem the No. of pupil-teachers were lessened and each cell was made equal. In the final sample the size of each cell was made of eight and the total sample was of 144 pupil-teachers.

For the purpose of experiment S.M.T., M.M.T₁ and M.M.T₂ groups were equated on the basis of Intelligence, Socio-Economic status, age, academic qualification and sex.

The experiment was conducted in the following two phases,

PHASE I

1. Administration of G.T.C. scale on two Macro lessons for pre-test purpose.
2. Orientation about Microteaching.
3. Discussion of teaching skills.
4. Pupil-teacher of S.M.T., M.M.T.\textsubscript{1} and M.M.T.\textsubscript{2} groups were exposed to Perceptual, Symbolic and Audio Modelling respectively.
5. Preparation of Microlesson plans in each of six skills.
6. Microteaching Cycle (Plan $\rightarrow$ Teach $\rightarrow$ Feedback $\rightarrow$ Replan $\rightarrow$ Reteach $\rightarrow$ Refeedback).
7. Integration of skills. (On two micro lessons of 15 minutes).

PHASE II

1. Administration of Achievement Tests in Social-studies, Hindi and Science subjects for pre-test purpose.
2. Teaching of 13 lessons more.
3. Administration of Achievement Tests in Social-studies, Hindi and Science subjects for Post-test purpose.

The findings of the study are given below objective wise:

OBJECTIVE I To study the impact of Perceptual, Symbolic and Audio Modelling in Microteaching upon G.T.C. of pupil-teachers.
OBJECTIVE II To compare the impact of Perceptual, Symbolic and Audio Modelling in Microteaching upon G.T.C. of pupil-teachers.

Hypothesis tested:

H_1 "The impact of Perceptual, Symbolic and Audio Modelling in Microteaching upon G.T.C. of pupil-teachers will not differ significantly

FINDINGS 1. The impact of Perceptual, Symbolic and Audio Modelling was significantly effective in improving G.T.C. of pupil-teachers. Hypothesis No. 1 was rejected at 0.01 level of confidence. Which clearly showed in that Symbolic Modelling was found to be most effective in improving G.T.C. of pupil-teachers.

OBJECTIVE III To study the effectiveness of Perceptual, Symbolic and Audio Modelling in Microteaching in increasing G.T.C. of pupil-teachers of different sex.

OBJECTIVE IV To compare the effectiveness of Perceptual, Symbolic and Audio Modelling in Microteaching in increasing G.T.C. of pupil-teachers of different sex.

Hypothesis Tested:

H_2 "There will be no significant difference in the effect of Perceptual, Symbolic and Audio Modelling in Microteaching in increasing
FINDINGS 2. It was found that pupil-teachers of S.M.T., M.M.T.₁ and M.M.T.₂ groups irrespective of their sex showed significant gain in G.T.C.

3. Difference between G.T.C. scores of pupil-teachers of different sex of S.M.T., M.M.T.₁ & M.M.T.₂ groups was insignificant.

Therefore the hypothesis No. 2 was accepted at both levels.

It showed that impact of Perceptual, Symbolic and Audio Modelling in Microteaching on G.T.C. of pupil-teachers was not the function of sex.

OBJECTIVE V To study the impact of different types of Modelling in Microteaching upon G.T.C. of pupil-teachers offering Social-studies, Hindi and Science.

OBJECTIVE VI To compare the impact of different types of Modelling in Microteaching upon G.T.C. of pupil-teachers offering Social-studies, Hindi and Science.

Hypothesis Tested:

H₃ "No significant difference will exist in the impact of different types of Modelling in Microteaching upon G.T.C. of pupil-teachers offering Social-studies, Hindi and Science."
FINDINGS 4. All these different types of Modelling had a significant impact upon G.T.C. of pupil-teachers offering Social-studies, Hindi and Science.

5. For students offering Social-studies and Hindi the impact of Perceptual and Symbolic Modelling was found to be more effective than Audio Modelling in improving G.T.C. of pupil-teachers but for pupil-teachers of Science method the impact of all these three types of Modellings was more or less the same in improving G.T.C. Therefore the hypothesis No. 5 was rejected at both levels.

OBJECTIVE VII To study the impact of G.T.C. developed through different types of Modelling upon Academic-Achievement of the students.

OBJECTIVE VIII To compare the impact of G.T.C. developed through different types of Modelling upon Academic-Achievement of the students.

Hypothesis Tested:

H₄ "The impact of G.T.C. developed through different types of Modellings, upon the Academic-Achievement of the students will not differ significantly.

FINDINGS 6. It was found that G.T.C. developed through different types of Modellings significantly increased the Academic-Achievement of students.
7. Although there was significant gain in the achievement of students of all the three groups but the impact of G.T.C. of pupil-teachers developed through Symbolic Modelling upon Academic-Achievement of students of M.M.T. group was found to be best. Therefore the hypothesis No. 4 was partly accepted and partly rejected. Thus the significant impact of G.T.C. developed through Symbolic Modelling on Academic-Achievement of students clearly showed that pupil-teachers retained this competence for longer period.

**FINDINGS** 8. It was found that interaction of factor A with B was significant at 0.01 level. Therefore the hypothesis No. 5 was rejected at 0.01 level.

9. Interaction of B with C was also significant at 0.01 level. Therefore the hypothesis No. 6 was rejected at 0.01 level.

10. There was in significant interaction between A and C factors. Therefore the hypothesis No. 7 was accepted.

11. Insignificant interaction existed between A, B and C factors. Therefore the hypothesis No. 8 was accepted.
CONCLUSIONS

This was an experimental study to find out the impact of different types of Modellings upon G.T.C. of pupil-teachers and its impact upon Academic Achievement of students using a sample of 72 B.Ed. pupil-teachers from V.S.S. D.College and 72 B.Ed. pupil-teachers from A.M.D.College, Kanpur. The following general conclusions are drawn from the results of the data of this sample.

1. This study has clearly shown that presentation of model lesson is very essential for improving G.T.C. of pupil-teachers. Variety of models is needed for effective learning.

2. All the three types of Modellings- Perceptual, Symbolic and Audio are significantly effective for developing G.T.C. of pupil-teachers but symbolic Modelling is found to be the best.

3. It may be concluded that pupil-teachers of both the sex, if exposed to Modelling- Perceptual or Symbolic or Audio Modelling show significant gain in their G.T.C.

4. This study also reveals that Modellings-Perceptual or Symbolic or Audio is also useful for pupil-teachers offering Social-studies, Hindi and Science subjects. It should be considered as a part of their practice of teaching.
It may be inferred that their G.T.C. can be improved if they are exposed to any of the above three types of Modellings.

5. From the study it may be further concluded that in case of pupil-teachers offering Social-studies and Hindi methods only Perceptual and Symbolic Modellings are more effective while in case of pupil-teachers offering Science subject all the three types of Modellings are equally effective.

6. Another conclusion of the study is that improvement of G.T.C. of pupil-teachers developed through these different types of Modellings upon Academic-Achievement of students is clearly visible. Students of all the three groups showed significant improvement in their Academic-Achievement.

7. The impact of G.T.C. developed through Symbolic Modelling is seen when students showed highest gain in their Academic-Achievement.

**Implications of the Study**

After going through the study and looking into the findings, following education/implications can safely be mentioned:

1. Its implication is for Board of studies of Faculty of Education at the time of syllabus construction authorities should see that Modelling should be made part and parcel of
practice of teaching. Training colleges should be instructed to use Perceptual or Symbolic Modelling for Social-studies and Hindi method students while for Science method students they asked to use either of the three types of Modelling viz. Perceptual, Symbolic and Audio.

2. The implication of this study is also for Principals, Heads and staff of Training Colleges. They can make Teacher Training programme skill-based. On the basis of this study they can specify their objectives for a particular lesson, introduce the new lesson effectively checking the previous knowledge of the students, using positive reinforcement and can increase critical awareness among pupil-teachers. By developing the skill of achieving closure a teacher can get psychological satisfaction that she has taught effectively when she consolidates the major points with the help of students.

3. On the basis of this study we can say that supervision during practice teaching period using observation schedules may be objective, and immediate feedback given by the supervisors on the basis of observation schedules may be to the point.

4. This study is useful for Junior High Schools also as the findings of this study show that G.T.C. of pupil-teachers affect the Academic Achievement of students.
In Junior High Schools authorities should see that at the time of appointment of teachers preference should be given to train teachers.

Problems During The Research Period

The problems experienced by the investigator are summarised in the following paragraphs.

1. Primary Problems:
   i. Problem of sampling came before the investigator. The investigator planned to take 20-30 B.Ed. students in each subject (Social-studies, Hindi and Science). Only 24 students were enrolled for B.Ed. in Science method in A.M.D. College in 1982-83. The investigator randomly selected 30 students in Social-studies and 50 in Hindi subjected but took all 24 students of Science method. The total sample was of 168 students. 84 Male and 84 Female. The experiment was conducted on above said 168 B.Ed. students. Due to statistical problem (The Factorial Design of ANOVA 3X3X2 was applied for Comparing data) the number of the sample was further lessened and the final sample was of 144 B.Ed. students-72 Male and 72 Female.

   ii. Financial problem was faced by the researcher as she was not in job. She applied in N.G.E.R.T., U.G.C. and I.C.S.S.R. for financial assistance but could not get any response.
2. **Subsidiary Problems:**

Some subsidiary problems were also faced by the investigator during research period:

i. For the purpose of grouping of teacher-trainees V.I.T. and SEES were administered. They were hiding some correct informations. The research worker convinced them that their information will remain confidential. The rapport was established between pupil-teachers and investigator to achieve their co-operation.

ii. Some administrative problems as planning about experiment, Conducting of experiment with college time-table, formation of microlessons and arrangement of the time-table, space for conducting of the experiment, co-operation from the practising schools were also faced by the investigator.

iii. The research worker faced difficulty with regard to the availability of literature on Microteaching and its dissemination. Sufficient literature was not available which can be easily given to teacher-trainees for independent study.

iv. All the three formats of Modelling were used for all the six skills. This created the problem before the investigator. For all the skills, the same format is not useful.
v. Duration of practice period was short according to the nature of the skill.

vi. The problem was also faced at the stage of 'Integration of skills' in microteaching under simulated conditions. There was interference among the skills learnt earlier. In a set of skills to be practised each skill was found to affect other skills.

Suggestions for Improvement:

1. Variety of models should be developed for effective learning. Sufficient literature should be made available for the teacher trainees.

2. The format of Modelling should be according to the nature of the skill. For all the skills, the same format cannot work effectively.

3. Duration of the practice period should be increased according to the nature of the skill to be practised. (In may be up to ten minutes.)

4. Sufficient literature should be developed which would be easily given to teacher-trainees for independent study.

5. Proper proforma or observation schedule of Integration of skills should be developed. This schedule may reflect the evaluation criteria of each skill but in relation to the evaluation criteria for other skills in the set of skills.
6. Formats of Modelling should be used according to the nature of the skill. For example, Perceptual Modelling (Demonstration by the supervisor) may be useful for skill of Reinforcement and Symbolic Modelling (Printed material) for achieving closure etc.

Suggestions for further study

Further research may be carried out to throw light on the unsolved problems of this study.

1. Similar study taking large sample may be undertaken.
2. Impact of only three types of Modelling were seen. Other Modelling as Audio-visual (Video) may be taken.
3. This study was delimited for only six teaching skills. Other skills may also be suggested.
4. The pupil-teachers offering Social-studies, Hindi and Science were only included in the sample. Pupil-teachers offering other teaching subjects may also be included.
5. The impact of different types of Modelling on G.T.C. of pupil-teachers of different levels of intelligence may be seen.