

CHAPTER VI

SUMMARY, RECOMMENDATIONS AND  
TOPICS FOR FURTHER STUDY

INTRODUCTION

STATEMENT OF THE PROBLEM

OBJECTIVES OF THE STUDY

HYPOTHESES

PROCEDURE

FINDINGS

RECOMMENDATIONS FOR TEACHERS AND  
HEAD MASTERS

RECOMMENDATIONS FOR TEACHER EDUCATORS

RECOMMENDATIONS FOR UNIVERSITY

AUTHORITIES AND BODIES

RECOMMENDATIONS FOR STATE GOVERNMENT  
BODIES

TOPICS FOR FURTHER RESEARCH

INTRODUCTION

The present research study is related to variations in microteaching technique in which the effectiveness of self-instructional material is tested. The need for such study was evident because the use of such material reduces the time, workload of teacher educators and cost of programme.

Systematic and scientific attempts of developing such material in Marathi were conspicuous by their absence. Especially no material is available on the skill of 'Questioning for Feedback'. Using this powerful self-instructional tool, it is possible to change both external as well as the internal behaviours including interactive decision making. Hence, in order to study the effect of training in 'Questioning for Feedback' upon thought process, the following study was undertaken.

STATEMENT OF THE PROBLEM

"A STUDY OF AN EFFECT OF TRAINING IN QUESTIONING FOR FEEDBACK UPON INTERACTIVE DECISION MAKING OF TEACHER TRAINEES".

**OBJECTIVES OF THE STUDY:**

1. To develop self-instructional material on the skill of 'Questioning for Feedback' for the purpose of training on the skill.
2. To investigate decision making behaviour of teacher-trainees.
3. To study the effect of training in 'Questioning for Feedback' on decision making of teacher in the class-room instruction.
4. To study the effect of training in 'Questioning for Feedback' upon general teaching competency and related components of teaching skills.

**HYPOTHESES:**

1. There is no change in decision making of student-teacher before and after receiving training in 'Questioning for Feedback'.
2. There is no change in general teaching competency before and after receiving training in 'Questioning for Feedback'.
3. There is no change in the performance related to 'Questioning for Feedback' before and after receiving training in the same.

PROCEDURE:

The general teaching skill, viz: 'Questioning for Feedback' was selected for the study. The self-instructional material on the three skills was developed adopting instructional systems development (ISD) approach. ISD consists of the following ten steps:

1. Task analysis and job information.
2. Formulation of objectives and specifications.
3. Collection of research and information.
4. Planning
5. Development of prototype
6. Tryout and revision
7. Final product development
8. Installation and field testing of the product.
9. Final product revision
10. Dissemination in the field.

The first step of task analysis based on job information was already done by the earlier research scholars. Hence, the present study started from the second step onward. The last two stages were not included in the study because they are an extension of the earlier stages and would be



taken in the following study. The material produced through these stages consists of the following steps:

1. Place of teaching skill.
2. Objectives
3. Theory, psychological background and research.
4. Components and discussions.
5. Summary
6. Content test along with scoring key
7. Activities
8. Script for analysis and scoring key
9. Guidelines and observation tables
10. Model lessons and scoring key
11. Guidelines and lesson planning
12. Space for lesson planning and self-evaluation of planning.
13. Review of the main points.

The prototypes developed, as mentioned above, were tried out on a small sample and modified in the light of the feedback to give final shape.

The installation and field testing of the final product was done using pre-test post-test single group design. A random sample of twelve student-teachers of Vasant Rao Naik College of Education, Kolhapur was taken for the experiment.

The tools used were:

1. Process-Process Appraising Scale of Teacher Effectiveness (PASTE).
2. Stimulated Recall System (SRS)
3. The Category System.

During pre-testing, audiotape recording was done and their teaching performance was measured using PASTE.

For this purpose, each student-teacher gave a lesson of fifteen minutes in a real condition. This was followed by training in 'Questioning for Feedback' through microteaching using self-instructional material. The training in skill was completed in two days which was followed by post-test conducted on the lines of pre-test. The data were analysed using means, standard deviations, ANOVA and chi-square test.

The major findings of the study are listed below:

### FINDINGS

1. The material developed was very easy to understand, well organized, interesting and quite useful for the planning of micro lesson and acquisition of teaching skill. It was appropriate for the final product development.
2. The teacher-trainees were thinking equally of all the four major categories.
3. The teacher-trainees gave equal weightage to all the four categories.
4. Student-teachers thought more of learners than preactive behaviour.
5. Interpretation was the main thought process. Perception, Retrieval and Reflection occurred in the descending order.
6. Training in 'Questioning for Feedback' is ineffective in bringing about significant changes in decision making behaviour of teacher-trainees with respect to antecedent, content and thinking process.

7. Training of 'Questioning for Feedback' is not effective in taking the interactive decisions for changing the course of instruction, i.e. instructional moves.
8. The training programme is not much effective in changing thought processes and decisions of teacher-trainees related to preactive behaviour, internal factor, learner and material.
9. The training in 'Questioning for Feedback' has not made any changes in retrieval processes, perception processes and interpretation category of teacher-trainees.
10. The training in 'Questioning for Feedback' reduces thought processes of teacher-trainees related to reflection type.
11. The effect of training in 'Questioning for Feedback' is not seen in the case of teacher-trainees' statements. These statements consist of single, double, triple and all four categories of thought processes of teacher-trainees.
12. The training in 'Questioning for Feedback' is effective in bringing about significant changes in General Teaching Competency.



13. The training in 'Questioning for Feedback' is effective in bringing about significant changes related to teaching skill, i.e. formative evaluation teaching skill.

Some of the other findings of reflective thinking are as follows:

- (a) The teacher-trainees did not think about the past event but they corrected teaching at this point.
- (b) The teacher-trainees ensured about the students' understanding.
- (c) The teacher-trainees thought about the wrong assumptions which were related to previous knowledge, perception, interpretation, etc. from time to time. Hence, there was no need for reflection on the earlier actions.

On the basis of these findings, it can be concluded that the self-instructional material developed through this study is effective in changing thought processes related to (a) (b) (c) but effective in reducing reflective thinking.

On the basis of these findings the following recommendations can be made.

RECOMMENDATIONS FOR TEACHERS AND HEADMASTERS:

1. Teacher and Headmaster should make use of the self-instructional material in order to

improve their teaching as well as thinking processes.

RECOMMENDATIONS FOR TEACHER EDUCATORS:

1. Teacher educators can use the self-instructional material in their regular microteaching programme which will reduce their workload and duration of microteaching programme.
2. The self-instructional material is effective in bringing the general teaching competency. Therefore, it is useful for increasing the competency in the teacher of secondary school. Hence, the skill should be included in teacher education programmes.
3. The self-instructional material is also useful in microteaching like other microteaching skills.
4. This material is related to cognitive aspects and emphasises more on thought processes of teachers. Therefore, it should be used for changing the thought processes too.

RECOMMENDATIONS FOR UNIVERSITYAUTHORITIES AND BODIES

1. BOS should involve the detailed plan of the programme of microteaching to be conducted by the colleges of education. The plan should specify essential requirements of the programme and include 'Questioning for Feedback' as one of the skills.
2. The University should organize the inservice training programmes for teacher educators in the skill of 'Questioning for Feedback'.

RECOMMENDATIONS FORSTATE GOVERNMENT BODIES

1. The State Board of Teacher Education (SBTE) can act as an agency for the dissemination of the self-instructional written material. The teacher education programme for primary education includes eight teaching skills. Among them, the relative skill 'Questioning for Feedback' can be mentioned because taking into consideration the students'

feedback, the teacher can change his teaching behaviour while interacting in the class. Such skill helps the teachers in their thought processes and interactive decisions of instruction. Therefore, the use of such instructional material would be more useful for teachers at D.Ed. Colleges and the students as well.

2. The material would be also used for inservice training programme for teachers organized by SCERT.

#### TOPICS FOR FURTHER RESEARCH

The following topics can be suggested for further research on the basis of the experience and the findings of the present study.

1. The first immediate study should be an extension of this study, viz: decision making of the teacher. This should be done using pre-test post-test single group design.
2. An investigation can be undertaken into the relationship with null decision making.

3. According to the use of stimulated recall system, the study should be undertaken in respect of decision paths.
4. The study should be preplanned. Before the audiotaping whatever can be asked, it should be determined first and then it should be applied.
5. Further study should be conducted using pre-test post-test control design instead of pre-test post-test single group design.
6. The study of training in decision making should be componentwise.
7. Further research should be related to decision making process and its effect upon teaching.
8. The self-instructional material needs some modifications in order to make its use at D.Ed. level. This could be done by trying out the material at D.Ed. level students.
9. Similar self-instructional material can be prepared for the other teaching skills.



10. A comparative study of the present self-instructional material on the principles of programmed instruction and advanced organizers model can be undertaken.