CHAPTER VI

CONCLUSIONS, EDUCATIONAL IMPLICATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

On the basis of the results and discussion recorded in the preceding chapter, an attempt has been made in this chapter to draw conclusions. The educational implications of the findings have also been discussed in this chapter and an attempt has been made to suggest further research prompted by the results of the present study.

6.1 CONCLUSIONS:

The conclusions of the present research can be placed in two categories because two broad aspects have been studied in this venture. The first category covers the findings pertaining to the effectiveness of CQBT which was measured in terms of change in the classroom questioning behaviour of student teachers and enhancement in teaching competence. The second category includes findings pertaining to pupil achievement in Social Science under the charge of control and the experimental groups.

Effectiveness of CQBT:

Following are the main conclusions drawn by the researcher with regard to the effectiveness of CQBT:

1. The Classroom Questioning Behaviour Training helps in increasing the incidence of class room questions as is clear from the significant difference at 0.01 level of significance in the scores of the control and the experimental groups.

2. The Classroom Questioning Behaviour Training helps to improve the structural characteristics e.g. relevance, precision, grammatical correctness and clarity, of questions used by the student teachers in the classroom.

3. There is no effect of CQBT on the incidence of classroom questions at memory level, because there was found no significant difference between the scores of the control and the experimental groups.

4. CQBT was found effective in increasing the incidence of questions at levels higher them cognitive memory level i.e. at convergent, divergent and evaluation levels. Thus, CQBT has been found as an effective teaching model.

5. The study has revealed that CQBT improves the delivery behaviour of student teachers pertaining to classroom questions. Significant effect was found on speed, voice and pause of student teachers who underwent training in classroom questioning behaviour as compared to those who did not undergo such training.

6. The CQBT helps in improving the question distribution behaviour of student teachers with regard to space, volunteers and non-volunteers.
7. The CQBT improves the pupil response patterns in the experimental groups as compared to the control group.

8. The pupil response management behaviour viz. acceptance, rejection, prompting and seeking further information etc., of student teachers was found as improved through CQBT. Adequate and appropriate management of pupils’ response helps in enhancing the percentage of correct responses in the classroom.

9. CQBT helps in enhancing the teaching competence of student teachers of the experimental group as compared with the control group of student teachers.

**Pupil Achievement in Social Science:**

The present study has brought out the following conclusions with regard to pupil achievement in Social Science taught by the student teachers who underwent CQBT.

1. The achievement in Social Science of pupils under the Student teachers with CQBT was significantly enhanced as compared to the pupils under the student teachers without CQBT.

2. The Cognitive memory level achievement in Social Science of pupils under the control and the experimental groups does not differ significantly meaning thereby that CQBT does not help in enhancing the pupil achievement at cognitive memory level.

3. Pupil achievement in Social Science of pupils under the control and experimental groups differ significantly at convergent application level.

4. Pupil achievement in Social Science of pupils under the control and experimental groups differs significantly at divergent application level.

5. Pupil achievement in Social Science in pupils under the control and the experimental groups differs significantly at evaluation level.

The above conclusions lead to several manifestations. The CQBT makes it possible to modify classroom questioning behaviour of student teachers along the desired lines. Also, CQBT improves teaching competence of student teachers. The improvement in classroom questioning behaviour and teaching competence through CQBT influences pupil achievement in Social Science at convergent, divergent and evaluation levels.

**6.2 EDUCATIONAL IMPLICATIONS:**

The present research has its implications on various categories in the field of education as detailed below:

**Implications For Teachers Educators**

The researcher has found in the present study that CQBT was effective in modifying classroom questioning behaviour of student teachers. Therefore, if included in the prescribed courses for Teacher Education at preservice level, CQBT
can serve as an effective strategy based on systematic feedback. Classroom questioning behaviour of student teachers can improve remarkably in case they possess prior knowledge about different levels of classroom questions, structural characteristics of classroom questions, distribution behaviour and pupil response management behaviours.

The CQBT is also cost-effective because it employs only human resources and it has no dependence on sophisticated mechanical gadgets in the classroom.

CQBT is again very useful strategy for training at inservice level. It can be included as a part of the orientation courses for exposing extension workers to the operational programmes of Classroom Questioning Behaviour Training. Thus, CQBT is very helpful for enhancing teaching competencies of inservice teacher educators.

Implications for Teachers:

CQBT helps the student teachers to know how to strengthen their questioning behaviour and how to enhance their teaching competencies. CQBT also provides sufficient knowledge to student teachers how to manage the pupil response effectively in the classroom. It also enriches their knowledge for improving pupil achievement at higher levels of questions.

6.3 SUGGESTIONS FOR FURTHER RESEARCH:

1. The researcher employed pretest post-test control group design. Other researchers may find it fruitful if they conduct study on the same variables by applying Solomon Four Group design which has two control and two experimental groups. This may provide for external validity factors and may add to the generalisation aspects. Interaction effects of testing are also controlled in this design.

2. The scope of CQBT may be extended to a large number of preservice teachers. This would help to ascertain ideal group size for maximum effectiveness of CQBT.

3. The present study is limited to preservice teachers only. Research needs to be conducted to study the effectiveness of CQBT on inservice teachers. Jangira and Dhoundyal (1981) found CQBT very effective when they conducted such study on a small group of ten inservice teachers.

4. The present study has been conducted on a small group of preservice teachers. It is worth while to conduct such study on a large sample of pre-service teachers. This may be fruitful to establish validity and generality of CQBT.

5. The present study has examined the effect of CQBT on pupil achievement only. Another study can be conducted to find out the effect of CQBT on pupil attitudes and their personality adjustments.

6. Continuity of observation duration was a prime factor in the present study. Another study can be conducted to find the effect of CQBT on teaching competencies and pupil achievement by spreading the experiment on varying time gaps. This would throw light on the aspect of sustainability of the impact of the experiment.
7. In the present study the effect of CQBT has been observed on 9th class students only. It may be worthwhile to conduct such study at primary level and higher education level.

8. The present study examined the effect of CQBT on Social Science. Similar studies may be conducted to examine the effectiveness of CQBT on physical science and languages.

9. State procedures for certifying teachers have had their main purpose of excluding the incompetent teachers. Achievement of this purpose has been hampered by a lack of valid procedures for discriminating competent teachers from incompetent ones. A study may be conducted on CQBT as Teacher Education Programme to produce only teachers who have demonstrated competency. The present study is based on the assumptions and/or hope that this approach deserves serious consideration with regard to such a certification system that is based on demonstrated competence.

10. The present study has been conducted keeping in view the four levels of questions i.e. Cognitive memory, convergent, divergent and evolution levels. Another study may be conducted to improve teachers’ questioning techniques through the use of classroom Question Classification System.

11. The present study has focussed on pupil response management. Another hypothesis can be formulated wherein a researcher is to confront with the problem of defining qualitative differences in pupil responses. This is one of the important unsolved problems in the study of teachers’ questioning behaviours. Although the present study has concentrated much on higher cognitive questions, yet not much is known about what constitutes good answers to higher cognitive questions. A study in this regard can be conducted keeping the following criteria as possibilities: (a) Complexity of the response; (b) use of data to justify or defend the response; (c) plausibility of the response; (d) originality of the response; (e) clarity of the phrasing; and (f) the extent to which the response is directed at the question actually asked.

12. The present study is primarily based on teacher questions. But, some educators contend that our attention should be focussed on questions asked by students rather than on teachers’ questions (Carner, 1963; Wellington & Wellington, 1962). It may, therefore, be worthwhile to conduct a study on the frequency and quality of students’ questions in the context of classroom interaction. While investigating student questions in the classroom, the researchers may also undertake to investigate the types of question students ask and the types of question which students should be encouraged to ask.

13. The present study concentrates on training of teachers on classroom questioning behaviour. It would be of great interest to conduct a study on the training of students in classroom question-asking skills.

14. It may be fruitful to conduct a study on other programmes for improving teachers’ questioning behaviour. Shaver and Oliver (1964) trained teachers in the use of questioning methods appropriate to discussion of controversial issues in the social science.