CHAPTER- V

CONCLUSIONS, EDUCATIONAL IMPLICATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

This Chapter includes the findings, conclusions drawn, educational implication and suggestions for further research.

5.1 FINDINGS

The findings 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. The second category includes findings pertaining to enhancement in teaching competence, self concept and attitude towards teaching of student teachers.

5.1.1 Effectiveness of CQBT

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

1. The Classroom Questioning Behaviour Training helps in increasing the incidence of classroom 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 than 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.

5.1.2 Enhancement of Teaching Competence, Self concept and Attitude towards Teaching of Student Teachers

The present study has brought out the following findings with regard to Enhancement of Teaching Competence, Self concept and Attitude towards Teaching of Student Teachers who underwent CQBT.
1. CQBT helps in enhancing the teaching competence of student teachers of the experimental group as compared with the control group of student teachers.

2. CQBT helps in enhancing the self-concept of student teachers of the experimental group as compared with the Student Teachers of control group.

3. CQBT helps in enhancing the Attitude towards Teaching of student teachers of the experimental group as compared with the Student Teachers of control group.

The above findings 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, self concept and attitude towards teaching of student teachers.

5.2 CONCLUSIONS

A close analysis of the results indicates that the experimental group student teachers asked more questions in their classroom as compared to the control group. It is also shown by these tables that the level of questions asked by the experimental group was higher as compared to the level of questions asked by the control group. The Control group asked more questions at cognitive memory level whereas the experimental group asked more questions at convergent, divergent and evaluation levels, which generate more thinking. The experimental group improved the structural qualities of their questions after CQBT more significantly than the control group. The CQBT was also found helpful in sharpening the delivery of classroom questions as also in improving the question distribution behaviour of student teachers. CQBT equally helped to improve pupil response management behaviour of student teachers. The CQBT was found to be a better
strategy, than the conventional programme, of student teaching as teaching competence of student teachers was enhanced after CQBT. It was also found that CQBT was not only effective in improving the classroom questioning behaviour of student teachers, but it also helps in improving their self-concept and attitude towards teaching. The overall assessment points towards the ultimate effectiveness of CQBT and it provides a model for validation of teacher.

5.3 EDUCATIONAL IMPLICATIONS

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

5.3.1 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 pre-service 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 in-service 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 in-service teacher educators.
5.3.2 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.

5.4 SUGGESTIONS FOR FURTHER RESEARCH

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

2. The present study has been conducted on a large group of pre-service teachers. It is worthwhile to conduct such study on a small sample of pre-service teachers.

3. 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 creativity and their personality adjustments.

4. The researcher employed pretest post-test control group design. Other researchers may find it fruitful if they conduct study on the some 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.
The present study has focused 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.

The present study is primarily based on teacher questions. But, some educators contend that our attention should be focused 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.

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.

8. 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.

9. The scope of CQBT may be extended to a large number of pre-service teachers. This would help to ascertain ideal group size for maximum effectiveness of CQBT.

10. 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.

11. 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.

12. 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.

13. Training in classroom questioning behaviour increases pupil participation in classroom interaction. Socio-matric studies on the comparative pupil participation before and after the training are likely to provide functionally useful data.

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

15. 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.

16. Research on pupil questioning may yield rich results if it is studied in the context of what goes on in the classroom before and after the questions. This should include the study of both the cognitive and effective variables.