CHAPTER - FIVE

SUMMARY, CONCLUSIONS AND IMPLICATIONS

SUMMARY, CONCLUSIONS AND IMPLICATIONS

5.0   INTRODUCTION

Teacher education has been considered as the foundation of the entire education system of any nation. It has been considered as the backbone of the future society. This consideration emphasises the need for dynamic personalities who can shape the society. It is, therefore, essential that the teachers have not only to be proficient in theory of education but also to develop practical skills for effective teaching. These can be developed in teachers through teacher education programmes. In the teacher education programme, student-teaching programme holds the key position. The quality of teacher education programme depends on the quality of student teaching programme in the colleges of education.

The programmes going on in the teacher training institutions are not upto the mark and there is a felt need to restructure them. With changing pattern of education and changing needs of the society, there is vital need of dynamic teachers. Dynamic teachers can be the products of only a well organised and well planned system of teacher education. The teaching practice programme in most of teacher education institutions seems to be the weakest link of the programme. It is vague and does not provide student-teachers a precise idea of what is expected to be achieved through teaching practice. The teacher educators,

on their part, are more eager to assess the overall effectiveness of a student-teacher than help him specifically in developing into an effective teacher. Approach is rather global.

It is rightly recognised that pupil's behaviour is shaped by the behaviour, teacher exerts. It is the teacher who is active in the classroom most of the time. The practice teaching programmes have so far laid emphasis on the content and methodological aspects of teaching. Effectiveness of teaching is to be judged to the extent it has caused learning in child. The communication process of the teacher in the classroom has been found to be mainly responsible for the proper educational growth of the child although he is expected to direct the pupils outside the classroom in order to enable them to make the necessary changes in their way of thinking and doing.

Whatever may be the effort to change the school practices, ultimately it comes down to teacher's classroom behaviour, his teaching and the teacher-pupil transaction. The verbal transaction between the teacher and the student creates a climate of freedom or restriction for the pupils in the classroom. Not much attention has been paid to studying and analysing teacher's verbal behaviour. Since the teacher exerts a great deal of influence on the pupils, teacher's behaviour as an important variable in the dynamics of the classroom should attract the attention of teachers colleges. A number of techniques have been developed and are being used currently in India as well as in other countries for the modification of teacher behaviour. The technique of Analysis of Classroom Transactions (ACTs) is one of the recent

techniques of the educational innovations in training of teachers
to modify their behaviour and has shown promising results.
Therefore, with a view to exploring the possibility, usability
and to see the efficacy of the technique of Analysis of Class-
room Transactions (Acts) in our teacher training institutions
that the present study was planned. The following were the
objectives of the study:

5.1   OBJECTIVES

(1)   To provide transaction training to a group of science
        student-teachers based on Analysis of Classroom
        Transactions.

(2)   To find out the significant difference on classroom
        behaviour patterns of student-teachers between pre-test
        and post-test stages.

(3)   To see the feasibility of Analysis of Classroom
        Transactions Category System in teacher training programme.

The present study seeks to evaluate the efficacies of
Analysis of Classroom Transactions Category System (Roy, Harris,
1975) in the modification of teacher behaviour in the classroom.
Teaching behaviour in the classroom is defined as the teacher
verbal behaviour in the classroom on the variables of:

Teacher response positive	Trp
Teacher response negative	Trn
Teacher information	Tin
Teacher question open	Tqo
Teacher question closed	Tqc

Teacher direction	Td
Teacher does not direct	Tdt
Pupil response open	Pro
Pupil response closed	Prc
Pupil information	Pin
Pupil question	Pq
Silence	Sil
Disruption	Dis

5.2 HYPOTHESES

Keeping in view the objectives of the study cited above, the following hypotheses were framed:

(1) Student-teachers trained through transaction training, in post-test, will score higher on Trp, Tqo, Tqc, Td, Pro, Prc, Pin, Pq than in pre-test stage.

(2) Student-teachers trained through transaction training, in post-test, will score lower on Trn, Tdt, Sil and Dis than in pre-test stage.

(3) There will be significant difference in transaction patterns of student-teachers between pre-test and post-test stages.

5.3 DESIGN OF THE STUDY

The present study employed pre-test - post-test single group design. In order to fulfil the objectives and to test the hypotheses, the study was designed in two stages :
(i) the pilot study and (ii) the final experiment.

5.3.1 <u>Stage I</u> : <u>Pilot Study</u>

The pilot study aimed at seeing the efficacy of the transaction training treatment as well as visualising the administrative difficulties in the process of treatment being given to student-teachers and their assessment. A simple pre-test - post-test single group (N=5) design was executed. In pre-test the group was given the treatment of acquainting them with Analysis of Classroom Transactions in theory only. No practical training practice of different categories of transactions, coding, preparing matrix and interpretation of classroom behaviour was given. In the post-test, transaction training based on Analysis of Class-room Transactions was given, ACTs was employed to observe classroom behaviour twice for 24 minutes each for each student-teacher. The final data of the pre-test and post-test were compared. 't' tests were employed for significance difference. Experimentation was done in classes VIII and IX of the same school through the medium of English in the teaching of science.

The data of pilot study showed significant difference in some of the components of classroom behaviour. Thus the transaction training could help in modification of student-teacher's classroom verbal behaviour.

5.3.2 <u>Stage II</u> : <u>The Final Experiment</u>

The data of pilot study showed significant difference in some of the components of the classroom behaviour like Teacher Talk, Pupil Talk, Teacher information, Teacher question .

open, Pupil response open, pupil response closed, indicating that the transaction training has produced significant effect, nevertheless, to be more sure, the final experiment was planned to be conducted in more detailed and systematic way.

For the final experiment a simple pre-test - post-test single group design was executed. The study included twelve student-teachers. The study was organised in three phases: (i) theoretical orientation about transaction training, (ii)Practice in use of transaction categories in simulation, and (iii) Practice in use of learnt skills in real classroom situation. The entire experiment was conducted in class VII and VIII of Samodhpur Inter College, Jaunpur, U.P., in science teaching classes through the medium of Hindi.

,5.4   SAMPLE

Two sets of samples were used, one for the pilot study and the other for the final experiment. A sample of five student-teachers was drawn out of total science student-teachers admitted for B.Ed. training in the year 1983-84, in the Faculty of Education and Psychology, the M.S. University of Baroda, Baroda.

The total number of science student-teachers (12 student-teachers) admitted in Gandhi Smarak Degree College, Samodhpur, Jaunpur, U.P. in the session 1983-84 for B.Ed. training was selected for final experiment. For information purposes, an information sheet was filled in by each student-teacher. Data collected through an information sheet represented

that student-teachers selected were male from rural areas
having middle class family background, passed their B.Sc.
examination in the sessions of 1980, 1981 and 1982 and secured
percentages of marks ranging 48-55 and were in the age-group
of 23-26 years.

5.4.1 Student Sample :

The experimental classes in pilot study were VIII and IX
in the year 1983-84 at Sanskar Vidya Vihar School, Baroda,
where science was one of the subjects. Classes VII and VIII of
Samodhpur Inter College, Jaunpur, U.P. in the year 1983-84
were selected for the final experiment.

5.5   TOOLS AND TREATMENT

Regarding student-teachers bio-data and academic
qualifications etc., an information proforma was prepared and
administered to the student-teachers under training. For
training the student-teachers, the transaction training based on
analysis of classroom transactions developed by Roy, Harris (1975)
was used. Teacher behaviour was measured by observing and
analysing the classroom transactions of concerned student-teachers
using ACTs category system.

5.6   MEASURES FOR ANALYSIS

Inter-observer reliability was calculated through Scott's
coefficient method. Some ratios have been computed for meaningful
interpretations. Different kinds of statements in terms of
percentages were computed by reporting the tallies in each of
the column. This is done by dividing each of the column total
by the grand total number of tallies in the matrix. This

computation gives a clear picture of the proportion of the total transaction in the observed classroom situation found in each category. 't' test was used for finding out significant difference between pre- and post- tests on different variables.

5.7   FINDINGS

The results presented in the previous chapter show that the student-teachers scored higher on Trp, Tqo, Tqc, Td, Pro, Prc, Pin, Pq in post-test and lower on Trn, Tin, Tdt, Sil and Dis in pre-treatment stage. Thus the first and second hypotheses were retained.

Third hypothesis was accepted at .01 level of confidence. This leads to the conclusion that student-teachers trained through transaction training (in post-test) changed their verbal teaching behaviour in the classroom significantly compared to their previous behaviour (pre-treatment stage).

5.8   CONCLUSIONS AND IMPLICATIONS

The study with its limitations such as pre-test - post-test single group design and with small sample (N=12) has helped to seek the answers to the questions raised as objectives of the study. The study has the educational implications for the teacher education institutions in particular and education in general.

The effect of transaction training on classroom verbal behaviour of student-teachers seems to be prominent in the

direction of creating a social atmosphere or climate that appears conducive to teaching-learning process. On the basis of the data regarding classroom verbal behaviour of student-teachers there is sufficient evidence to infer that the student-teachers, given the treatment of transaction training showed significantly different classroom verbal behaviour compared to their previous status. Data also suggest the direction of the change of student-teachers behaviour. Significant difference on the variables of teacher response positive, teacher question open, teacher question closed, teacher information, and silence and disruption on one hand and pupil response open, pupil response closed, pupil information, and pupil question on other hand, are indicative of modification of behaviour in positive direction. The note-worthy significant features of the modification in the verbal behaviour of the student-teachers are decrease of total teacher talk and increase of total student talk.

It may be said that there is evidence to conclude that ACTs training did help the student-teachers to change their verbal behaviour in the class. As a result of training they changed significantly in the direction of using more and more acts of feedback to pupils individually or in groups about their achievements, asking for more divergent, original, creative answers, encouraging pupils to raise their motivation and accepting and clarifying an attitude or the feelings of a pupil or class in a warm and friendly manner. There was also a tendency on the part of student-teachers, who underwent

training to use less lecturing, talks about their own personal experiences, opinions, feelings, directing, commanding and criticising. As a result of training the indirect influence was increased showing more pupil participation, pupil initiation and pleasant and friendly atmosphere in the class. Student-teachers trained through ACTs, were able to maintain exchange of strokes between them and students, which is characteristic feature of the smooth and undisrupted teaching-learning process. Student-teachers were very much aware of their own action and its immediate effect on pupil's action and even aware of change in pupils behaviour, which ultimately lead to pupil-learning.

In this way transaction training did help in the modification of student-teachers classroom verbal behaviour in desired way. It may be useful for the teacher education institutions in India to use this technique for modification of the teacher behaviour of their student-teachers. Experimentation may be taken up in teacher education institutions by way of teaching analysis of classroom transactions as well as by using it in practice teaching programme which may bring more awareness among the student-teachers about their classroom behaviour. However, it is not prescription for teacher education institution, it should be left to the teacher educators to experiment with new patterns and follow the useful patterns. But Analysis of Classroom Transactions technique as an training tool as well as an assessment technique is quite practicable in teacher education programmes. It requires some practice, guidance and to think about and see what is being done. It is

an objective tool which involves the observer in detailed analysis to identify the kinds of transaction that takes place in the classroom. This quantitative study makes it possible to describe objectively the pattern of lesson, and qualitative aspects of verbal communication between teacher and taught.

Student-teachers trained in transaction training may apply it to their own lesson after it has been duly observed by the supervisor or some other colleague. They may also act as observers. Transaction modifies behaviours in subtle ways. A close examination of instruction with respect to the ways in which pupil behaviours is modified, indicates that in most cases it is done through the intentional and persistent use of particular behaviours and not by their casual or accidental use. Teachers role may be defined as behaviour which concerns duties, responsibilities, and functions expected of the teacher. Here the term role refers to an expected effect of the teacher's functioning on the pupil. Techniques of teaching are strategies and methods employed by a teacher to accomplish his objectives. For example, a teacher may use varying amounts of reward or punishment, praise or criticism, he may provide factual information or create opportunities for the pupil to discover such information on his own. He may use techniques of questioning, suggesting or actively directing the pupil's activities. He may apply different teaching style that is belief systems, attitudes and other personality characteristics which are not planned components of his role functioning. Characteristics such as relaxed or tense, warm or cold, intimate or detached, sensitive

or insensitive, outgoing and friendly or reserved and suspicious are often not subject to training over a short period time.

In the teaching-learning process if a teacher's teaching was effective and he wished to use that same instructional behaviour again with similar students and with similar objectives, he would need to know what characterised his teaching. Perhaps that is transaction between teacher and pupil, which characterised his teaching effectiveness. On the other hand, if the teacher's teaching was ineffective, it would be equally important for him to know why, so that he could modify his behaviour to make it more effective (may be due to lack of transaction).

Thus teaching may be defined as a series of transactions between someone in the role of teacher and someone in the role of learner, with the explicit goal of changing learner's behaviour. The communication process of the teacher in the classroom has been found to be mainly responsible for the proper educational growth of the pupil. Skill of communicating subject matter information to the pupils, alone will not achieve the objective of bringing about a change in the modification of the teacher behaviour. Teachers' status needs control and the need of this control can be fulfilled if teachers could develop new expectations themselves and their pupils and more deliberate control of their action with respect to a classroom as a social system through behaviour modification. How best to help teachers to change their teaching behaviour or how such behaviour might be most effectively developed, for this there is possibility that transaction training based on Analysis of Classroom Transactions can contribute to teacher education.

ACTs have shown promising results in the modification
of student-teacher verbal behaviour in the classroom. It may
not be prescribed as universal panaceas. But on the basis of
the results of this work, of course, first attempt in Indian
conditions, it is an introduction and invitation to all those
who are concerned with the modification of student-teacher
verbal behaviour in the classroom for effective teaching to make
an impartial, re-appraisal, noting the inefficiency of existing
methods of conducting student-teaching programme. The applica-
tion of the use of technique of this type in teacher training
programme will depend more on the consideration of existing
situation in a particular teacher education institution, its
personal resources, initiative, keenness and the level of
urgency with which the teacher educators view the challenge. A
teacher education institution may start only with imparting
a theoretical knowledge of Analysis of classroom Transactions
category system, proceed further in training student-teachers
in observation, preparation of matrix and its patterns,
supervisor's training for observation of student-teacher
performance in the classroom and later on providing training
in use of different categories creating different classroom
situations in simulation with immediate feedback and then allow
student-teachers to practice in real classroom situation where
also they will get continuous diagnostic feedback, self evalua-
tion opportunity, and immediate guidance in the area of demon-
strated deficiency. Thus it may be concluded that ACTs category
system can be used in teacher education institutions for basic

research in verbal transaction and as a training device for
pre-service and in-service teacher education.

5.9   SUGGESTIONS FOR FUTURE RESEARCH

The search for a scientific basis for teacher education
and improvement of teacher effectiveness is the present day need.
Further research in the area of transaction analysis technique
as a potential research tool for wide application to the
problems of education are needed.

Studies with longer samples may be undertaken for further
evidence of the present findings, as also to probe the other
possible correlates of teacher classroom behaviour. Such studies,
in the ultimate analysis should help in developing suitable
strategies for modifying teacher classroom behaviour.

It may be suggested that the research, on the validity of
the performance criteria be conducted. The most important studies
to be undertaken are experimental studies. Studies are needed
to determine whether the trained teachers exhibit greater
cognitive or affective growth in their students compared to
controls.

More correlational studies generating new hypotheses
and controlled experiments to validate or reject hypotheses
generated, will have to be taken up. Further studies may attempt
to control instructional content, instructional objectives and
instructional materials to gain further insight.

It will be worthwhile to initiate a few studies based on pupil sampling on the basis of their ability and study the class-room transaction patterns. This may provide further insight into the problem.