CHAPTER 7

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REVIEW, OBSERVATIONS AND SUGGESTIONS

This chapter provides a brief summary of the complete study including the major findings. It also deals with several observations regarding the nature of the study, its findings and their implications for the practical school life, suggestions for organising development programmes and further research in the area of teacher behaviour and classroom climate.

1. An Overview of the Work

The main objectives of the present study were :

1. To change the teacher verbal behaviour by proper training programme.
2. To study the effects of the sustained changed behaviour and their effects on student performance.
3. To study the effects of changed behaviour on variables such as pupils' academic motivation, classroom trust, adjustment, expectancy, dependency, initiative, activity level, classroom climate, classroom integration and academic achievement as related to pupils.

4. To study the effectiveness of the psychological education inputs in bringing about changes with respect to the major components of psychological developments namely (i) Goal-setting behaviour (ii) Risk-taking behaviour (iii) Perception of self-image (iv) Perception of goals (v) perception of teachers' role (vi) perception of role of self in schools (vii) Images for emulation and (viii) non-academic interests in Experimental Group 1 pupils.

The study employed pre-test, post-test and Experimental and Control Group design in two phases. The design envisaged three groups of IX standard pupils, one serving as Experimental Group 1, one serving as Experimental Group 2 and the other as Control Group. All the three groups started with the same treatment. First, pre-training measures of the interaction variables were taken. After the pre-training measurement, the teachers of the Experimental Group 1 and Experimental Group 2 were given intensive training in FIAC system through a five day seminar programme specially arranged for them. Then the teachers were asked to teach in the classes for six weeks. In Experimental Group 1, each teacher was provided feedback after every class. During

this period, the Control Group taught in the traditional method of teaching. This phase provided data to compare the three groups of teachers on classroom interaction patterns and to test the hypothesis regarding the effectiveness of teacher behaviour training and regular feedback, teacher behaviour training and traditional method of teaching in developing better classroom climate among the pupils.

Pre-test and post-test measures of variables affecting the classroom climate and performance of the pupils under the three groups of teachers were compared so as to determine differences in the classroom climates and performance of the pupils under the three groups and to link the differences due to changed teacher behaviour.

Incidentally, the psychological education input programme designed by Choksi was administered to Experimental Group 1 pupils incorporating it with regular classroom teaching to study the changes in psychological traits.

Major findings of the Experiment have been listed below :

7.2 Major Findings

(a) Findings Related to Teacher Behaviour Training :

* As a result of the teacher behaviour training and regular feedback, the teachers changed their behaviour in the Experimental Group 1.
* As a result of the teacher behaviour training, the teachers changed their behaviour in the Experimental Group 2.
* There is a positive change in the use of categories 1, 2, 3, 4 and there is a decrease in the use of categories 5 and 6 and a slight increase in the use of category 7 in all the teachers of Experimental Group 1 and Experimental Group 2.
* There is an increase in the use of categories 8 and 9 which led to an increase in pupils' talk in Experimental Group 1 and Experimental Group 2.
* The change is more in the Experimental Group 1 than in the Experimental Group 2 and this difference is due to the regular feedback given to the Experimental Group 1 teachers.
* No such positive change is observed in the Control Group.

(b) Findings Related to Classroom Climate Variables :

The teachers of the Experimental Group 1 who became Highly Democratic in their behaviour due to the teacher behaviour training and regular feedback given to them helped change the classroom climate.

The teachers of the Experimental Group 2 who became Democratic in their behaviour due to the teacher behaviour training given to them changed the classroom climate.

The changes in teacher verbal behaviour in Experimental Group 1 and Experimental Group 2 teachers led to an increase in -

(i) Pupils' Academic motivation level (Experimental Group 1 - mean gain score 14.28, significant at 0.01 level ; Experimental Group 2 - mean gain score 8.94, significant at 0.01 level).

(ii) Adjustment towards class teachers, principal, companions, subjects, classroom, school and in total adjustment (Mean gain score of total adjustment in Experimental Group 1 - 8.74, significant at 0.01 level; Experimental Group 2 - 6.96, significant at 0.01 level).

(iii) Classroom trust (mean gain score in Experimental Group 1 - 6.41, significant at 0.01 level ; Experimental Group 2 - 4.00, significant at 0.01 level).

(iv) Activity level (Mean gain score in Experimental Group 1 - 0.33, significant at 0.05 level).

(v) Students' Expectancy level (mean gain score of pupils' expectancy in Experimental Group 1 - 3.69, significant at 0.01 level; Experimental Group 2 - 2.86, significant at 0.01 level).

(vi) Students' Dependency level (Mean gain score in Experimental Group 1 - 2.75, significant at 0.01 level).

(vii) Classroom Climate components viz. productivity. legitimacy, authenticity and total classroom climate (productivity - mean gain score of Experimental Group 1 2.35, significant at 0.01 level, Experimental Group 2 - 1.62 significant at 0.01 level ; legitimacy - mean gain score of Experimental Group 1 - 1.59 significant at 0.01 level; authenticity - mean gain score of Experimental Group 1 2.76 significant at 0.01 level, Experimental Group 2 - 1.48 significant at 0.05 level ; total classroom climate score - mean gain score of Experimental Group 1 - 8.58 significant at 0.01 level, Experimental Group 2 - 7.57 significant at 0.01 level).

(viii) Classroom Integration Index.

The changes in teacher verbal behaviour led to an increase in pupils academic achievement in all the subjects and in the average achievement (mean gain score of Experimental Group 1 is 22.15 significant at 0.01 level, Experimental Group 2 is 14.51 significant at 0.01 level).

The increase is more in Experimental Group 1 classes compared to the Experimental Group 2 classes because of the Highly democratic behaviour of the teachers which is the result of regular feedback given to them during the Experimental period.

(c) Findings Related to Psychological Education Input Programme given to Experimental Group 1 Pupils :

The following are the results of the psychological education input programme given to the pupils of the Experimental Group 1 :

1. The pupils became more realistic when they became aware of their abilities and the gap between goal supposed and goal obtained in marks has decreased. (Pre test mean goal discrepancy - 18.50 and post test mean goal discrepancy - 4.30).

2. The psychological education input programme affected the risk taking behaviour of the pupils. At the post performance level, the pupils manifested more moderate risk taking behaviour.

3. (a) There were definite changes in pupils' responses during the pre - post experiment stages in the perception of their own self image. In the pre - writings pupils tried to identify themselves more in terms of their family background or school. But the post writings reflected clearer and more vivid self images perceived in terms of their interests and abilities.

   (b) Regarding goal - perception, the pre-writings revealed that the pupils were very vague as to what they planned for their future. A positive change was observed in their post writings both in short term and long term goals. The short term goals were achievement oriented and the long term goals were clearer and indicated the development of a general concern for excellence.

   (c) The responses in pre-writings to the question 'What type of teacher do you like ? ' showed that the pupils perceived their teachers more as parent substitutes. They also reflected the existence of a negative sentiment attached to the work of a teacher in the school. A positive shift in their perception is found in their post-writings and they began to recognise their teacher in his academic role as a competent person who could help and guide them to learn.

(d) The pre-writing analysis on 'Myself and My School' showed that the pupils did not have a comprehensive view of the school and their own roles. The pupils were mainly concerned about the physical facilities. There was a significant change in their post writings. They could clearly see their role as learners placed in a specific environment. They perceived the school as a place for social interaction among themselves.

(e) The responses to the word association test in pre writings were indicative of either a neutral or negative attitude towards school and school work. But the post writings reflected a favourable attitude towards school and they expressed liking for the school work.

(f) In the beginning the pupils had a very limited perspective into the world of images whom they could try to emulate. The post writings indicated a broadening of their perspective and vision. They referred to a wide variety of images which included friends, teachers and distant historical figures.

(g) The comparative analysis of pre and post writings of the contentsfor the non-academic interests of the pupils showed that their area of interests got widened.

7.3 Observations

Several points emerge from the findings recorded in connection with changing teacher behaviour. In the first place it appears feasible to develop a desired classroom

interaction pattern even in experienced teachers. Classroom behaviour training, based on interaction analysis used in the present study may be considered as one of the strategies which have been found to be more effective in accomplishing certain objectives as compared with the conventional training programme. The teachers of the Experimental Groups after training talked less, were more responsive to pupils encouraged more pupil participation and had more pupil initiative than the Control Group. The results are in agreement with the findings reported by Amidon and Powell (1966), Pareek and Rao (1971a), Pangotra (1971), Jangira (1972), Raijiwala (1975), Desai (1975), and Pavanasam (1975). This implies that 'Classroom Behaviour training' based on interaction analysis, can be used as one of the teaching strategies effectively, once the conceptual basis of the interaction patterns is prepared, it is operationalized into the behaviour patterns, an objective, reliable and valid system of observation of classroom teaching is developed.

Secondly, interaction patterns acquired during training were sustained for more than twenty weeks after the training was completed. The study of Jangira (1972) also bears testimony to this effect. This means that 'the

effects of intensive classroom behaviour training are sustained and carried over, to the actual teaching in the field.

Thirdly, it is evident from this study that the training given in FIACS did help the teachers to change their verbal behaviour in the classrooms. As a result of the training, they began to use more and more acts of praising and encouraging the students for more participation, and accepting and building up the ideas of the students. There was also a tendency on the part of the teachers who underwent training to use less lecturing, directing and criticising. As a result, the indirect / direct influence ratios of experimental groups increased showing more indirect influence.

The present study has also revealed that the pupils who were taught by the teachers trained in indirect behaviour and who received regular feedback after each class, scored higher in all the tests compared with their counterparts working under teachers who were given the training alone and not any feed back. The pupils who worked under teachers trained in indirect teacher behaviour alone scored higher in all the tests compared

to their counterparts working under teachers who were not given any training in this technique. Filson (1957), Lshier (1965), Johns (1966), Morrison (1966), Sniden (1966), Soar (1966), Emmer (1967), Furst (1967), Pankratz (1967), Samph (1967), Weber (1968) have also reported on the basis of their studies, that the indirect behaviour on the part of the teacher result in students achieving bettef. Apart from academic achievement, Weber (1968) found that verbal activity is significantly associated with indirectedness of the behaviour on the part of the pupils. Emmer (1967) has categorically stated that the teachers could be trained to use more category 3 statements and this resulted in more use of category 9. These findings support Rosenshines's (1970) general conclusion after reviewing nine different studies on 'criticism' (Category 7). Sniden's (1966) study reveals that though adjusted achievements in high school Physics was not found highly related to indirect teacher behaviour, there was significant positive correlation between indirect teacher behaviour and pupil attitude. The studies by Flanders (1970, a, b, c, d, e), Penny (1969), Medley and Mitshel (1959), Thompson and Bower (1968) and Tisher (1968) have shown positive correlation. Out of the

nine studies, two yielded significant results (Flanders, 1970, Sixth Grade and Penny, 1969).

In the present study, the teachers of Experimental Group 1 and Experimental Group 2 reduced the use of Category 7 (criticism) after given training in FIACS. This reduction of Category 7 by the teachers of the experimental groups was responsible for the establishing a better classroom climate. Similar to this finding, studies related to criticism and pupil achievement were investigated by many researchers. Of the seventeen studies received by Rosenshine, one showed significant negative, linear correlations (Flanders, 7th Grade, 1970), seven yielded significant negative relationships on atleast one criterion measure (Anthony, 1967 ; Harris et al. 1968 ; Hunter, 1968 ; Perkin, 1965 ; Soar, 1966), one showed significant positive relationship on atleast one criterion measure (Harris and Serwer, 1966), and eight studies showed non-significant relationship (Cook, 1967 ; Flanders, 2nd Grade, 1970 ; Flanders, 4th Grade, 1970 ; Flanders, 6th Grade 1970; Flanders, 8th Grade 1970 ; Morsh, 1956 ; Wallen, 3rd Grade, 1966; Wright and Nuthall, 1970). Studies of Hunter (1966), Perkins (1965), Wallen(1966)

did not find significant correlations between mild criticism and academic control and student achievement.

However, some other studies showed contradictory findings in this area. Three studies did not find any significant relationship between teachers' making use of the student ideas and student achievement and attitude are by Sniden (1966), Guggenheim (1961) and Hoover (1963). In the studies of Perkins (1965) and Spaulding's (1966), mild criticism was positively related to achievement. With the exception of all the above findings, it can be concluded that the result of the present study are in line with the other studies conducted by researchers in other countries.

The psychological education input programme given to the pupils of Experimental Group 1 reveals the following observations :

The psychological education input programme was given to the pupils to achieve the total development of his psychological domain as much as intellectual education aims at the full blossoming of the individuals cognitive capacities.

The psychological education input programme used in this study could be used in any school. It does not require a specialist teacher, any change in the regular schedule of the work or any additional resources for implementing the various activities suggested.

The psychological inputs of this programme are integrated with the instruction in various subjects. This makes the adoption of this model smooth and natural.

Another important feature of this programme is that the evaluation of the various aspects of the psychological development has been conceived of as continuous process integrated with instructional work in the classrooms.

Results of the present study clearly shows that the psychological education input programme given to the pupils is highly effective as positive changes have been observed in pupils goal-setting behaviour, risk-taking behaviour, goal-perception and perception of the self.

The results of the present study also reveals that the effects of the experimental treatment is quite enduring.

7.4 (a) Educational Implications

The significant differences found in the achievement of the pupils of the Experimental Groups support the generalisation that the teaching method leading to 'indirect' teaching behaviour is likely to lead to better pupil achievement and better classroom climate. Indirect influence stimulates verbal participation by pupils and discloses to the teacher, pupils' perception of the situation. Such an approach not only provides the teacher with more information about pupils' understanding of a particular problem, but also often encourage the pupils to develop more responsibility to diagnose their difficulties and for suggesting a plan of action.

'Direct' teacher influence, increases pupil compliance to his opinion and direction. It conditions the pupils to seek the teachers' help and to check with the teacher more often to be sure that they are on the right track.

The other implication for classroom teacher is that the major differences in the use of influence between the

the teachers whose students learnt the most and those whose pupils learnt the least is illustrated by the use of actions classified under the categories 1, 2, and 3. The direct teachers lack those skills of communication that are involved in accepting ideas, clarifying and making use of the ideas and feelings of the pupils. The indirect teachers could make use of those skills when needed. They use less direction and criticism. The most direct teachers give twice as many directions as the most direct teachers and the use of criticism is also more. Those teachers have to work hard to keep his pupils working successfully.

The difference between the direct and indirect teachers may be interpreted in terms of the different roles the teachers is able to play in the classroom. The shift in the interaction or flexibility were much less in the case of direct teachers as compared to indirect teachers.

(b) The Implications of Indirect Analysis :

The FIAC system of interaction analysis is not yet a finished research tool because it is primarily concerned with the social skills of classroom management

through verbal communication and is content free. This means that the conclusions are restricted by the limitations which are inherent in the system. The limitations are (i) the coding of the classrooms verbal communication provides a relatively gross description of a small portion of classroom interaction. Most of the events which go in the classrooms are counted in terms of relatively broad categories, (ii) terms such as 'teacher indirectedness' and the contrast between 'direct' and 'indirect' teaching are abstract and general. Such terms are relative and useful only to compare carefully controlled teaching situations and easily lead to an over simplication of complex, inter-related events (iii) the analysis of the sequential pairs of events tabulated in a 10 X 10 matrix specify the probability with which pairs of coded events occured during the observation periods. The utility of such information depends a great deal on the research design, particularly how time periods are to be combined into a single cumulative display and the relationship of these time periods to the purposes of the classroom teaching. Though this is a time consuming process, it reveals the existing patterns of teacher influence in

the classroom, (iv) without subscribing the categories, the FIAC system is probably most useful for describing the balance between teacher initiative and teacher response and for tracing this balance as it varies with time, instructional purposes and classroom settings.

Training the observers in the Interaction analysis system and maintaining their reliability are the two main success points of this system.

(c) Implication for Teacher Education :

The present condition of the teacher education programme gives rise to many questions not only to the educationists but also to the teacher educators. The training imparted to the teacher trainees, in future will affect the willingness in the classrooms. The teacher behaviour in the classroom is helpful to solve many of the problems of the classrooms.

The theory underlying Flanders' Interaction Analysis category system must be included in the curriculum, with a view to practising in day to day teaching. The knowledge about the functional aspects of this system must be given in detail to all - the teacher trainees and the teacher educators. The

improvement in the teacher's classroom behaviour will be possible only if the teacher trainee is able to visualize his own behaviour patterns exhibited in the classroom while teaching. This is possible with the help of FIACS or any such system which help them. Therefore, the programme of supervision must adopt this system, to modify the teachers' behaviour in the desired direction. This system will also serve as an effective and vital tool for feedback mechanism.

What is going on in the classroom affects the class-room climate which in turn help the pupils to achieve better in academic subjects and also in improving their mental health. Hence, the pre-service and in-service training programme must include training in FIACS. A programme of improvement of teacher behaviour should be started at various levels in the teacher education Institutions. They are the following :

(i) In the curriculum such a system of classroom observation be included.

(ii) In practice teaching programmes.

(iii) In developing lesson plans.

(iv) In extension programmes training to the trained teachers should be given.

The results of the psychological education input programme given to the pupils of the Experimental Group 1 reveal that psychological education is useful for teaching in school classes and creating conducive classroom climate suitable for learning. The present study shows that if the psychological traits are introduced in the regular classroom work, it affects their achievement motivation, self perception, goal setting behaviour, risk taking behaviour etc.

The present education system faces the problem of creating a suitable classroom climate which could be created only by the teachers. How can the teachers be trained for creating better classroom climate ? The foremost need is to train the teacher educators who in turn, will transfer the training to the trainees. It will also help them to perceive the problems of administration in different dimensions. The clearer perception of the self, healthy attitude towards profession, identification with the job etc. will solve many a problem generating due to the lack of it. The training colleges and universities should try to introduce psychological education courses in their curriculum. The training colleges should take up more and more experimentation in

this direction to strengthen the beneficial results of this experiment.

The inspecting authorities attached to the Department of Education should be oriented in the process of psychological education.They should organise regular courses for the incoming teachers.

Psychological education is generally perceived as the last resort to solve the school problems. But it should be used to make the teaching-learning process a pleasant one for both the teachers and the taught. The knowledge of psychological education would lead to better understanding of the intricacies involved in the teaching learning process. This requires teachers with insight who could provide suitable educational experiences to bridge the gap between where the child is and where he can be. A teacher must know a wide range of educational procedures and knowledgeable about the goals of human development. This expertise will enable him to develop greater confidence in the art of teaching.

The present study conducted in real classroom settings revealed that the pupils who were taught by the teachers trained in using indirect verbal behaviour scored high as compared to their counterparts working under teachers who were not provided any training in this technique. It also reveals that the indirect verbal behaviour of the teachers improve the climate of the classrooms resulting in free communication and open interaction between the teacher and the pupils, and to help the pupils in bringing out and actualizing their innate potentialities.

7.5 Suggestions for Further Research

Research on teaching has, for a long time, been conducted by standing outside the classroom and therefore, actual classroom behaviour of teachers has been side tracked. The results are naturally unhealthy. The concept of teaching remains vague with the result, classroom teaching remains ineffective in the majority of our classrooms. Hence, concerted attempts have to be made in research on teaching in general and classroom teacher behaviour in particular, if the desired objectives of teaching are to be realised.

A few suggestions for further research which is the outcome of the findings of the present research are given below :

(a) On Teacher Behaviour :

(i) A study of teacher behaviour of women teachers and their impact on pupils in the Primary / High / Higher Secondary schools.

(ii) A comparative study of teacher behaviour between men and women teachers and their personality behaviours.

(iii) Teacher behaviour of experienced teachers and new entrants in Primary / High / Higher Secondary schools.

(iv) The effect of teacher behaviour on deliquent children.

(v) The impact of teacher behaviour on backward children.

(vi) The influence of teacher behaviour on academically gifted children.

(vii) To study the effect of teacher behaviour on pupils of high SES and low SES group in terms of achievement.

The implications of the above studies will lead to a series of longitudinal studies which are listed below :

(i) The likely influences of maturation over student reaction to teacher behaviour and vice versa.

(ii) The need for reinforcement to stabilize the effects of change in teacher behaviour over a period of time.

(iii) The impact of educational reforms and syllabus on teacher behaviour.

(iv) The personality variables of the pupils that are modified by the change in teacher behaviour.

(b) On Classroom Climate :

(i) Case studies of classroom climate types.

(ii) A study of the classroom climate of innovative and non-innovative schools.

(iii) A study of the factors that affect the classroom climate at different class level in different types of schools.

(iv) A study of classroom climate in different classes over a period of time to find out the fluctuations if any that occurs and reasons for the same.