

## CHAPTER VI

### SUMMARY

There is general agreement among educators that teaching needs considerable improvement. Studies on teacher effectiveness involving value judgements have failed to identify effective and ineffective teachers.

Since teaching has been conceived as an interactive process, primarily involving classroom talk, which takes place between teacher and pupils during certain identifiable activities or behaviours such as motivating, planning, lecturing, guiding etc., educators and researchers have made teacher behaviour (verbal as well as non-verbal) as their focus of attention with the hope of identifying effective and ineffective patterns of teacher behaviour and thereby improving teaching.

The earlier attempts to study classroom behaviour date back to 1914, when Horn devised a procedure to measure pupil participation in the classroom. Pucket elaborated Horn's procedure

and Wrightstone developed a scheme similar to that of Horn. Anderson in 1945-46 identified "Dominative" and "Integrative" patterns of teacher behaviour during the course of his research at the University of Illinois. Withall in 1949 developed a Social-Emotional Climate Index measuring seven behaviour dimensions of teacher. Since then a large number of observation techniques to measure teacher behaviour have come into existence.

Once the tools to record classroom behaviour of teachers were developed, researchers initiated studies correlating teacher behaviours with personality and other variables. For example Davies correlated teacher behaviour with certain personality traits. She found only one or two measures among 25 teacher traits to be significantly related to patterns of teaching observed with Flanders' categories. Ringness compared similar observation scores of 27 first-year teachers with measures of self-concept as teachers, measure of security, and measures of anxiety. Although there were significant relationships among self-perception scores, the measures were not significantly associated with observed overt behaviour while teaching. Bowie found that the teacher's verbal behaviour was influenced by his value patterns as identified by the Allport-Vernon-Lindzey Value Scale. She categorized the teacher's verbal behaviour in terms of role-taking processes (feeling tone) and ideational content (ideas expressed) which implied a theoretical structuring of teaching.

## THE PRESENT INQUIRY

The research reported here too is in the area of teacher behaviour and similar to the researches of Davies, Ringness, and Bowie. The main objectives of research were: (i) to study the relationship between four dimensions of teacher behaviour plus one dimension of student behaviour with certain personality traits and attitudes of teachers; (ii) to predict these five behaviour dimensions on the basis of personality traits and attitudes; and (iii) to study the effect of personality upon I/D (Proportion of <sup>in</sup>direct behaviour to ~~indirect~~ behaviour) ratio, one of the five behaviour dimensions.

The four dimensions of teacher behaviour were I/D ratio, i/d ratio, T/S ratio and teacher's Accepting Behaviour of Student's Ideas (Category 3.). The one dimension of student behaviour was Student Initiation (Category 9).

These dimensions of behaviour were adopted from Flanders Interaction Category System. The system is made up of 10 categories, of which 1 to 7 are for teacher talk; 8 to 9 for student talk; and the last for silence, pauses or confusion. Teacher talk is further divided into indirect and direct influence. Categories 1 to 2 (Accepts Feeling, Praises or Encourages, Accepts Ideas of Student and Asks Questions) are meant for indirect influence. Categories 5 to 7 (Lecturing, Giving Directions, and

Criticizing or Justifying Authority) account for direct influence. Category 8 is meant for Student Response and category 9 for Student Initiation.

I/D ratio is the proportion of indirect behaviour to direct behaviour including content emphasis, whereas i/d ratio is content free and reflects affective behaviour only. I/D ratio is computed by adding the frequencies in categories 1 to 7 and dividing them by the total of frequencies in categories 5 to 7. Similarly i/d ratio is obtained by totalling the frequencies of categories 1, 2, & 3 and dividing them by the frequencies in categories 6 and 7. T/S ratio is the proportion of teacher talk to student talk which is obtained by adding the frequencies in categories 1 to 7 and dividing them by the total of frequencies in categories 8 and 9. Since the observation periods of teachers varied it affected the frequencies in categories 3 and 9 and therefore to maintain uniformity among them they were converted into percentages. The percentages were obtained dividing the frequencies in categories 3 and 9 by the total number of frequencies in categories 1 to 10 and multiplying by 100.

#### DEPENDENT AND INDEPENDENT VARIABLES OF THE STUDY

In the present investigation I/D ratio, i/d ratio, T/S ratio  $C_3$  and  $C_9$  were studied as dependent variables while

personality and attitudes were studied as independent variables. In all there were 15 independent variables - 7 personality and 8 attitudinal. The personality traits were (1) Active (2) Vigorous (3) Impulsive (4) Dominant (5) Stable (Emotionally) (6) Sociable and (7) Reflective. The attitudes are those that are toward (8) Management, (9) Parents, (10) Other Teachers (11) Democratic Administrative Procedures (12) Pupils (13) Democratic Classroom Procedures (14) Teaching Profession and (15) Education.

#### HYPOTHESES

Keeping in view the objectives of the investigation following null hypotheses were developed:

- (1) I/D ratio, i/d ratio, T/S ratio,  $C_3$  and  $C_9$  are not related to Active, Vigorous, Impulsive, Dominant, Stable, Sociable, and Reflective traits of teacher's personality.
- (2) I/D ratio, i/d ratio, T/S ratio,  $C_3$  and  $C_9$  are not related to teacher's attitude toward Management, Parents, Other Teachers, Democratic Administrative Procedures, Teaching Profession, and Education.

In addition to testing the above hypotheses it was also

aimed to get the answers to the following questions:

- (1) To what extent all the 15 independent variables taken together help in predicting I/D ratio, i/d ratio, T/S ratio,  $C_3$  and  $C_9$ .
- (2) What is the impact of personality traits on direct and indirect behaviour of the teachers?  
In other words do the means of direct and indirect teachers on the seven personality traits differ significantly from each other?

#### SAMPLE

The sample of the study consisted of 200 teachers, drawn from 21 secondary schools of which 4 were boys schools, 6 girls schools and 11 mixed schools. The age the teachers ranged from 22 to 62 years. Their total experience ranged from 0 to 40 years. Seventy two percent of teachers were of English, Social Studies and Science subjects. The remaining 28 per cent were of Hindi, Gujarati, Mathematics and Sanskrit.

#### RESEARCH TOOLS

Flanders Interaction Category System was used for observing and recording teachers' verbal behaviour. Thurstone Temperament Schedule was employed to assess the personality traits, and attitude scales constructed by Wandt, Glassey, and Yashumati Patel were adopted to measure attitudes.

## DATA COLLECTION

All the 200 teachers under study were observed in the classroom while teaching and their behaviour (interaction) was recorded in the Flanders' ten categories. Each teacher was observed twice in the same class teaching the same subject for a complete period of 35 to 40 minutes but not less than 20 minutes. The two separate observations of the single teacher were combined into one. Frequency tables were prepared and I/D, i/d, and T/S ratios were calculated. Frequencies of categories 3 and 9 were converted into percentages. Personality schedule and attitude scales (in Gujarati) were administered individually and on completion were scored accordingly for statistical analysis.

## ANALYSIS OF THE DATA

The relationship between dependent and independent variables was determined by Pearson Product Moment Correlation technique. Prediction of dependent variables was made by utilising step-wise regression analysis technique and the effect of personality on direct and indirect behaviour was studied by the "t" test technique.

## RESULTS

### Relation Between Teacher Behaviour and Personality and Attitudes:

About 75 correlations between 5 behaviour dimensions and

15 personality and attitude measures were tested. These correlations ranged from .00290 to .16517. The lowest correlation was between teachers' attitude toward "Other Teachers" and i/d ratio. This correlation was not significant. The highest correlation was obtained between teachers' attitude toward "Democratic Classroom Procedures" and i/d ratio. This relationship was significant at .05 level. Apart from this, three more relationships were found to be significant at .05 level. They were between "Reflective" trait and i/d ratio (  $-.16389$  ); between teachers' attitude toward Democratic Classroom Procedures and I/D ratio (  $.14964$  ); and between "Sociable" trait and Student Initiation -  $C_9$  (  $-.14892$  ). There were some correlations which were not significant but were near the .05 level of significance. Such correlations were between "Reflective" trait and I/D ratio; teachers' attitude toward "Management" and "Education" and i/d ratio; "Active" trait and teachers' Accepting Behaviour of Student's Ideas (  $C_3$  ); "Vigorous" trait and  $C_3$  and  $C_9$  ; "Reflective" trait and  $C_3$  ; and "Active" trait and T/S ratio. Among the four significant relationships two were negative and two positive. The negative relationships were between "Reflective" trait and i/d ratio and  $C_9$  . The positive relationships were between teachers' attitude toward "Democratic Classroom Procedures" and I/D and i/d ratios.



Prediction of Teacher Behaviours:

In predicting the I/D ratio, variable 13 (attitude toward "Democratic Classroom Procedures") proved to be the best predictor with a multiple R of .1496 which was significant at .01 level. The second best predictor variable was number 7 ("Reflective" trait) which was combined with variable 13 and a fresh regression was developed which gave a multiple of .1917. This was also significant at .01 level. Except these two variables no other variables predicted I/D ratio significantly. The two regression equations for predicting I/D ratio significantly are given below:

$$(1) \text{ I/D} = -.24 + .01X_{13}$$

$$(2) \text{ I/D} = -.07 + .01X_{13} - .03X_7$$

In predicting i/d ratio variables 13 (attitude toward D.C.P.), 7 ("Reflective" Trait), 8 (attitude toward 'Management') and 6 ("Sociable" trait) proved to be the best predictors. The multiple R's between variable 13 and i/d ratio was .1652; between 13 and 7, and i/d ratio was .2630; and between variables 1,3,7,8 and 6, and i/d ratio was .2858. The four variable regression equation predicted the i/d ratio to the extent of 8 per cent. Below are given the regression equations for each combination of variables:

- (1)  $i/d = -.37 + .04X_{13}$
- (2)  $i/d = .82 + .04X_{13} - .12X_7$
- (3)  $i/d = -.4 + .04X_{13} - .12X_7 + .02X_8$
- (4)  $i/d = -.64 + .03X_{13} - .15X_8 + .02X_7 + .07X_6$

As far as the prediction of Student Initiation ( $C_9$ ) was concerned it was observed that out of 15 independent variables only one namely "Sociable" trait predicted it significantly at .05 level to the extent of 2.25 per cent. The single variable regression is presented below:

$$(1) \quad C_9 = 6.71 - .19X_6$$

With respect to the prediction of  $C_3$  and T/S ratio it was found that not a single multiple R between  $C_3$  and T/S and the 15 independent variables was significant implying that  $C_3$  and T/S could not be predicted significantly by these variables.

Effect of Personality on Direct and Indirect Teacher Behaviour:

In order to study the effect of personality traits, on direct and indirect behaviour comparisons of mean scores of direct and indirect teachers on the seven personality traits were made. However, it was found that none of the seven "t" values for the seven traits were significant making it obvious that direct and indirect teacher behaviours were not influenced

by teacher's personality temperament. More specifically direct and indirect teacher behaviours could not be regarded as a function of teacher personality.

#### CONCLUSIONS

- (1) Teachers' verbal behaviour in the classroom is related in a small measure to his personality and attitudes. The results are similar to the findings of Davies mentioned in the review of past studies.
- (2) Teachers' attitude toward "Democratic Classroom Procedures correlated significantly (at .05 level) with I/D and i/d ratios. The correlation with I/D ratio was .14964 and with i/d.16517.
- (3) "Reflective" trait correlated significantly (at .05 level) with i/d ratio. The correlation was - .16389.
- (4) "Sociable" trait was significantly (at .05 level) related to Student Initiation. The correlation between the two variables was -.14892.
- (5) "Reflective" trait and attitude toward "Democratic Classroom Procedures" were found to be the best predictors of I/D ratio, which was predicted to the extent of 4 per cent.

- (6) In the prediction of i/d ratio attitude toward "Democratic Classroom Procedures", "Reflective" trait, attitude towards "Management", and "Sociable" trait were found to be the best predictors. They predicted i/d ratio to the extent of 8 per cent.
- (7) Teacher's Accepting Behaviour of Student's Ideas ( $C_3$ ) could not be predicted significantly by any of <sup>the</sup>  $A$  predictor variables.
- (8) "Sociable" trait was found to be the best predictor of Student Initiation ( $C_9$ ). It predicted  $C_9$  to the extent of 2.25 per cent.
- (9) T/S ratio (Proportion of Teacher Talk to Student Talk) could not be predicted significantly by any of the 15 variables.
- (10) Direct and indirect teachers do not differ significantly, from each other on the seven personality traits.
- (11) Further research is needed to identify the variables significantly related to teacher behaviour.

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