METHOD OF INVESTIGATION
CHAPTER - IV

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4.1. Measurement of Variables

4.1.1. Personal Data

4.1.2. Job Satisfaction Inventory

4.1.3. Attitude scale to measure the attitude of teachers towards teaching.

4.1.4. 16 Personality Factors Questionnaire (16 PF)

4.1.5. Neuroticism Scale Questionnaire

4.2. Design and sample

4.3. Characteristics of the sample of the study

4.4. Administration and scoring of the instruments.

4.5. Analysis of the data.
CHAPTER IV

METHOD OF INVESTIGATION

4.1. MEASUREMENT OF VARIABLES

Out of the 29 variables (both dependent and independent) investigated in the present study, 10 are personal variables for which information was gathered through a personal data sheet and the remaining 19 variables were measured with suitable instruments. A brief description of the instruments employed is given in the following pages.

4.1.1. PERSONAL DATA

The data regarding the type of management of the school (Government/Private), Locality of the school, sex of the teacher, designation, faculty, qualifications, marital status, age, experience and size of the family were obtained through a carefully designed personal data sheet. (Personal data sheet is given in Appendix 1)
4.1.2. JOB SATISFACTION INVENTORY

Job Satisfaction inventory was developed by Dr. Ramakrishnaiah, Venkateswara University (1989). It is a very appropriate and standardised tool for measuring Job Satisfaction of teachers, because it is brief, standardised and easily administrable and scorable. It is suitable for assessing Job Satisfaction of the teachers.

DESCRIPTION OF JSI

The number of items are 44. These items are formed into 9 factors each factor containing 3 or more items.

a. Factor (F₁) : Principal.

There were 11 items in this factor which describes the characteristic of the Principal or the treatment experienced by the College teachers from the Principal. The qualities of the head of the institution and the way he deals with his subordinates, will no doubt have a profound effect on the job satisfaction of the teachers. The eleven items included in the factor are:

6. The Principal does not give reasons for any change in my work.

7. The Principal gives contradictory orders from time to time.
11. There is a democratic spirit in the administration of the college.

13. Our Principal is sympathetic to my personal problems and grievances.

16. The Principal is interested in understanding the teacher's difficulties.

22. The Principal is impartial to all of us.

23. My ability and performance are recognised by the Principal.

25. I have cordial relationships with my Principal.

30. Our Principal is not efficient.

32. Our Principal trusts me.

34. We are allowed to give suggestions to the Principal for improving the quality of the work.

b. Factor (F$_j$) : Parents and Students

Four items, which are concerned with parents and students, are included in this factor. It is reasonable to assume that parental interest in the education of children, and the quality of students, and their interest in education do have a strong bearing in the level of job satisfaction of the teachers. The 4 items that were included in this factor are:

8. Parents are not interested in their children's education.

9. I am dissatisfied with the poor quality of the students that come to schools.
21. Students have interest in studies.

23. Parents do not feel the responsibility for their children's future.

c. Factor \( F_2 \) : Physical facilities

This factor is concerned with the physical facilities conducive to teaching, like lab, library, etc., and other facilities like staff room, etc., which make the place of work more comfortable.

5. Items were included in this factor:

2. There are adequate washing and toilet facilities in school.

5. There is an adequate laboratory for the school.

10. We have all the equipment and material necessary for teaching.

17. We have a well furnished staff room.

35. We do not have an adequate library for the school.

d. Factor \( F_3 \) : Self-esteem

This factor contains 7 items which explain the suitability of different abilities, interests, likings, etc., of teachers to the job and their
feelings about their positions in the job. The following are the items included in the fourth factor.

3. I am a successful teacher.

12. I like my job.

14. There is a good relationship between myself and my students.

15. I feel important in my job.

24. I am satisfied with this job because the future of the country is in the hands of teachers like me.

27. I am getting fatigued rather quickly in this job.

41. My work is suitable to my abilities.

\[ \text{e. Factor (F.): Fringe benefits} \]

This factor describes the attitude of teachers towards the fringe benefits like pension, casual leave, earned leave, medical leave, etc., they have in their profession. The items included in this factor are:

39. We get an adequate pension when we retire from the job.

42. My salary is less than what I deserve for the work.

44. We have adequate casual leave, earned leave and medical leave facilities.
f. Factor \((F_6)\): Entertainment, Prestige and Courses.

As the name indicates, this factor describes the availability of facilities for entertainment, the type of courses offered in the school, and prestige of the teaching profession, though these things are not materially important to teachers, they are important to keep up the mental health of the teachers. The three items included in this factor are:

1. I am not satisfied because we do not have adequate play grounds, recreational and entertainment facilities in the school.

4. I am dissatisfied with the low social prestige value in teaching profession.

19. I am not satisfied because the courses offered are not job oriented.

The score on this factor varies between 3 and 15.

Factor \((F_7)\): Academic Policies

This factor deals with aspects related to the scope for academic advancement of the teachers, academic freedom the teachers have, etc., which do have an intrinsic effect on the job satisfaction of the teachers.
29. There are sufficient inservice training programmes to keep us up-to-date about the new trends in knowledge.

33. Faculty Improvement Programme (FIP) facilities are readily available to us.

36. I have the freedom to take initiative in organizing projects, etc.,

37. Advance information about the changes that are going to take place, is given to the teachers.

40. I receive encouragement from my colleagues to try new methods.

h. Factor ($F_h$): Co-teachers

This factor with three items is concerned with the conduct of the co-workers of the individual. Job satisfaction of the teachers is indeed affected by the behaviour of the co-workers. The items included in this factor are:

18. I am unhappy with the political affiliation of the teachers.

26. I am dissatisfied because we do not have a code of conduct.

38. I am dissatisfied because teachers who are highly disciplined are teased (made fun of) by their colleagues.
i. **Factor (F₉: Girl students, Personal activities and Place of work)**

This factor deals with the feelings of teachers towards nature of students, interference, of other activities with teaching and the distance of the place of work from one's native place. If students are not education oriented, if other activities interfere with the teaching work, teachers tend to be dissatisfied. Similarly, if they are posted to far away places, it becomes a source of dissatisfaction especially for those who have immovable property like land, house etc.,

The three items included in this factor are:

20. Girl students are marriage oriented rather than education oriented.
28. I am not able to devote sufficient time to my profession due to interference of other activities.
31. I feel troubled because I am far away from my native place.

Job Satisfaction inventory was adopted for the present investigation. The reliability of the Job satisfaction inventory of the author was 0.77. The questionnaire as its name implies, provides a multi dimensional measurement of Job Satisfaction (structure of Job Satisfaction
inventory given in Appendix 2). For the past fifteen years, this
questionnaire had been used by the research scholars of Shri Venkateswara
University to find the Job Satisfaction among the teachers. Hence this tool
lends empirical credence to its construct validity as a Job Satisfaction
measure.

4.1.3. ATTITUDE SCALE TO MEASURE THE ATTITUDE OF
TEACHERS TOWARDS TEACHING

To measure the attitude of teachers towards teaching scale
developed by Dr. Ramakrishnaiah of Venkateswara University (1989) has
been adopted. The reliability of this attitude scale established by the author
was 0.84 (structure of Attitude scale given in appendix 3)

4.1.4. 16 PERSONALITY FACTOR QUESTIONNAIRE (16PF)

According to Cattell (1950) "Personality is that which
permits a prediction of what a person will do in a given situation". His
theory is based on personality sphere concept (Cattell, 1946, 1957, 1964) -
a design to ensure initial item coverage for all the behaviour that
commonly enters rating - and the dictionary description of personality. It
focuses heavily on "source traits". Cattell defines source trait as the spring of the human behaviour. Much is becoming known about the nature of these dimensions through studies with ratings, with laboratory measures, and with real life situations. According to him, a trait of any variety is a mental structure which is a relatively fixed characteristic of the individual functioning from time to time in behaviour.

**SELECTION OF THE TOOL AND ITS USES**

Selection of a tool for measuring "Personality poses serious problems. One may cut a sorry figure in explaining his/her choice. The selection of Cattell's 16PF test in the present research was also not arbitrary and has been made after a lot of deliberations and study of theory which has been supported amply by Stern (1921) and Allport (1937) in the following words.

Stern observes as under: "We have the right and obligation to develop a concept of trait as a definite doctrine, for in all activities of the person, there is, besides a variable portion, likewise a constant purposive portion, and this latter, we isolate as the concept of trait".
Allport's contention is equally forceful. He asserts: "Traits are discovered not by deductive reasoning; not by faith, not by naming, and themselves never directly observed. They are discovered only through an inference made necessary by the demonstrable consistency of the separate observable acts of behaviour".

Vernon (1963) says that a Person's behaviour in any situation depends, of course, on specific features of that situation and on his temporary feelings or state of mind, but it depends also on his more enduring characteristics abilities, habits and more general dispositions which may be called traits.

Cattell (1961) says that the source traits, as measured by the 16PF test, are the spring of human behaviour. His definition of personality as given earlier is consistent with the contention of Marxi and Hillix (1973) that "the theory of personality is really identical with the general theory of behaviour, for Cattell's definition would fit the theories of behaviour".

In view of the above theoretical as well as practical considerations Cattell's 16PF questionnaire was selected. The 16PF questionnaire is an objectively acceptable test devised by basic research in
psychology to give the most complete coverage of personality possible in a brief time. Coverage of personality is ensured by the sixteen functionally independent, and psychologically meaningful dimensions isolated by over twenty years of factor analytical research on normal and clinical groups. Therefore, having a certain position on one factor does not prevent the person having some other position, whatever, on any other.

Experience with the 16PF in clinical, educational, and industrial psychology shows that the use of the 16 traits gives actual prediction. In view of the above theoretical as well as practical considerations, Cattell's 16PF questionnaire (Cattell's 16PF given in Appendix 4) was selected for collection of data related to personality variables of the study. The reliability co-efficient for the 16PF were as follows:

Factor A: 0.42 B: 0.40 C: 0.36 E: 0.34

F: 0.41 F: 0.32 H: 0.49 I: 0.42 L: 0.37 M: 0.31 N: 0.32 O: 0.29

Q_1: 0.52 Q_2: 0.34 Q_3: 0.37 Q_4: 0.40

The thirty years of factor analytic work sponsoring this tool lend empirical credence to its construct validity as a personality measure and predictor.
4.1.5. NEUROTICISM SCALE QUESTIONNAIRE (NSQ)

According to Freud's classical dictum "Anxiety is the central problem in neurosis". Most modern observers add - "Neurosis is the central problem in the society". The Neuroticism scale Questionnaire (NSQ) developed by Scheier and Cattell (1961) is a very appropriate tool for measuring neurotic tendency, as it is brief, standard, and easily administered and scored. It is suitable for normal as well as abnormal adults and also adolescents.

i. Description of the NSQ

Clinical studies with major personality dimensions showed that neurotics differed from normals not only on one dimension but on many dimensions. Thus, neurotic trend was a complex form, which was influenced by six personality dimensions viz., 1. Over protection (Factor-I), 2. Depressiveness (Factor-F) 3. Submissiveness (Factor-E), 4. Worry (Factor-O), 5. Tension (Factor-Q4), and 6. Ego weakness (Factor-C). Among the above six dimensions the last three dimensions measure a single factor viz., anxiety, which is the central problem, in neurosis. The test provides only one separate sub-score for the last three dimensions an
anxiety score which may be stated as the fourth component of the test. The individual component scores describe the corresponding dimensions and the total score on all the four components measures neuroticism (Scheier and Cattell, 1961).

This is a popularized scale, used by many researchers for assessing the Neuroticism variables. Hence it was decided to use it for the present study. The reliability coefficient of the NSQ was 0.78 which established by Scheier and Cattell (1961) Neuroticism scale given in Appendix 5)

4.2. DESIGN AND SAMPLE:

The present investigator has adopted Casual Comparative Method other-wise called as Ex-Post facto design. The researcher has applied the multistage random sampling method for selecting sample from the population, since the population has different strata and a large group. Questionnaires were distributed to 400 teachers of 14 Higher Secondary Schools each in three Educational Districts under Coimbatore Revenue District (List of Higher Secondary Schools given in Appendix 6). Out of these, filled in questionnaires had not been received back from 84 teachers in spite of best efforts and approaches made by the investigator, due to
various reasons. In total, 316 questionnaire copies only were on hand. Amongst, these 16 questionnaire copies had become invalid due to improper fillings and hence they were rejected. Hence, the study has been conducted on a sample of 300 Higher Secondary School teachers distributed between the two areas (Urban and rural) the two sexes (men and women) and the two managements (Government and Private).

The entire state of Tamil Nadu consists of many districts. Among them one of the districts i.e., Coimbatore District was selected. Coimbatore District is divided into 3 Educational Districts as it is thickly populated.

i. Coimbatore Educational District.

ii. Pollachi Educational District.

iii. Tirupur Educational District.

Identification of Educational District was the basis for stratification in the first stage. In the second stage, stratification was made on the basis of the type of Management of the Higher Secondary School (Government and Private Higher Secondary School). In the third stage, teachers were selected from the second stage. The distribution of the sample of teachers for the final study under different categories is shown in the table.
### 4.3. CHARACTERISTICS OF THE SAMPLE OF THE STUDY

<table>
<thead>
<tr>
<th>TYPE OF VARIABLES</th>
<th>NUMBER OF TEACHERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locality</td>
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<td>Rural</td>
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<tr>
<td>Urban</td>
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<tr>
<td>Sex</td>
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<tr>
<td>Male</td>
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<tr>
<td>Management</td>
<td></td>
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<tr>
<td>Government</td>
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</tr>
<tr>
<td>Private (aided)</td>
<td>96</td>
</tr>
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<td>Private (non-aided)</td>
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</tr>
<tr>
<td>Marital Status</td>
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<td>Un-married</td>
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<td>Designation</td>
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<tr>
<td>Ph.D</td>
<td>6</td>
</tr>
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</table>
4.4 ADMINISTRATION AND SCORING OF THE INSTRUMENTS

The instruments viz., Job Satisfaction inventory, scale for measuring attitude towards teaching, 16 personality factor questionnaires, neuroticism questionnaire and personal data sheet which were self administering, as a matter of motivating the teachers, by explaining to them the purpose of the research and the way they had to answer the items. They were also assured that the data would be used only for research work and would be kept confidential.

They were explained the purpose and importance of the study. Sufficient time was given to the teacher to respond to the items.

The Job Satisfaction and Attitude towards teaching inventories (which were five point scales) were scored by assigning numerical weights to each of the responses.
Numerical weights given to the five alternative responses.

<table>
<thead>
<tr>
<th>Type of Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Doubtful</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
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<td>Positive</td>
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<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Negative</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

The 16PF questionnaire was scored as per the weights provided by the authors. Except the item in Factor-B, all other items were placed on a 3 point scale with weights from 0 to 2. The items in factor-B were given weights of '0' for wrong answers and '1' for right answers. The factor total were obtained by adding the scores obtained on the items in each factor.

The neuroticism scale was also scored according to the weights given by the authors for the three alternative responses to each item. The total score was obtained by adding the weights of all items in the instrument. (The scoring key for 16PF questionnaire and neuroticism is given in the appendix 4 and 5 respectively).
4.5 ANALYSIS OF THE DATA

The data thus collected was analysed using relevant statistical technique like analysis of variance, Pearson product moment correlation technique etc., to find the size and direction of the relationship between two variables and test the significant relationship between the dependent variables respectively.

The usual level of significance 0.05 was employed to test the significance of the obtained values.

The results obtained are discussed in the next chapter.