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PLAN AND PROCEDURE

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CHAPTER :

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PLAN AND PROCEDURE

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3.10   INTRODUCTION :

Dissonance almost always exists after a decision
has been made between two or more alternatives. The
cognitive elements corresponding to positive characteris-
tics of the rejected alternatives, and those corresponding
to negative characteristics of the chosen alternative, are
dissonant with the knowledge of the action that has been
taken. If the overt behaviour is successfully elicited the
person's private opinion is dissonant with his knowledge
concerning his behaviour. Forced or accidental exposure
to new information may create cognitive elements that are
dissonant with existing cognition.

Pressure to change others means pressure to
influence others. So they are identical with pleasures to
communicate. Influence exerted on a person will be more
effective in producing opinion change to extent that the
indicated change of opinion reduces dissonance for that
person. A person with a low tolerance for dissonance

would, perhaps be unable to maintain such dissonances and would struggle to eliminate them.

It is evident that once a change in behaviour has occurred, a change in belief is likely to follow. A healthy organisation is always innovative and its members are highly prone to change. While adopting innovations in an organisation dissonance will arise among the teachers. This existence of dissonance being psychologically uncomfortable will motivate the teachers to reduce the dissonance and achieve consonance.

3.11   THE NEED FOR THE STUDY :

Knowledge about an innovation does not necessarily mean adopting the new idea. Most of the Secondary School teachers know about many innovations but they have not introduced it in the class-room. The teachers attitude toward an innovation carry some degree of subjective risk to the individual. He is not sure of the idea's results and feels a need for reinforcement of his attitudes toward a new idea. Attitude toward the innovation is our main concern at the persuation stage in the innovation decision process.

Festinger (1964) summarised the results of three field experiments in which a change in attitude toward an innovation occured for many respondents, but

this attitude change did not result in behavioural change. The attitude behaviour dissonance lie in the personality structure of the individual. The attitudes toward both the innovation and toward the situation in which the innovation is introduced need to be considered in order to predict behavioural outcomes.

Innovation Dissonance is a specific type of cognitive dissonance and we know from Festinger's (1957) theory that there is pressure in the direction of dissonance reduction. The Psychological state of dissonance is uncomfortable and therefore individuals seek to reduce this tension by bringing their attitudes and their action into line.

The teachers frequently try to avoid becoming dissonant by seeking only that information which they expect will support or confirm a decision already made. During the confirmation stage the individual wants supportive messages that will prevent dissonance from occuring.

When the teacher's attitudes are dissonant with an overt behaviour demanded by the organisation, he will attempt to reduce the dissonance by changing either his attitudes or his behaviour. The teacher will change his attitudes over a period of time to confirm his public behaviour but he may have little opportunity to change

his organisation behaviour. On the other hand a teacher may find ways of circumventing the authority decision of the organisation and of resolving the dissonance by making his behaviour confirm with his private attitudes.

To make education, learning oriented the teachers must change first.

3.12   THE PROBLEM, SCOPE, & DEFINITION OF THE TERMS :

The explanation of the investigated problem is given below:

" A study of Innovation Dissonance and Its Correlates in Secondary Schools ".

The various terms used in the statement of the problem are very briefly, pin-pointed and explained as under:

Innovation : means a significant change in educational objectives, curriculum content, teaching method, pupil grouping, staff development, resource utilisation and the organisation of the activities of the institution.

Innovativeness : According to Rogers (1962) "The degree to which an individual is relatively earlier in adopting new ideas than the other members of the social system".

<u>Innovative Proneness</u> : The positive attitude towards new ideas and practices. A particular focus of interest in the attitude of teachers towards innovation in Education.

<u>Innovation Dissonance</u>: Dissonance can be defined as a disharmony in the individual's state of mind which makes him change his behaviour so that his attitude and action are not in the state of equilibrium or hormony.

Human behaviour change is motivated in part by a state of internal disequilibrium or dissonance, an uncomfortable state of mind that the individual seeks to reduce or eliminate. When an individual feels dissonant he will ordinarily be motivated to reduce this condition by changing his knowledge, attitudes or actions.

Innovation dissonance in a formal organisation is the discrepancy between an individual's attitude towards an innovation and the overt behaviour (adoption or rejection) demanded by the decision unit. When an individual's attitudes are dissonant with the overt behaviour demanded by the organisation the individual will attempt to reduce the dissonance by changing either his attitude or his behaviour.

(a)   Innovation Attitude Behaviour Dissonance :
        According to Rogers (1963) when the individual

becomes aware of the felt need or problem and seeks information about some means such as an innovation to meet this need. Hence a receiver's knowledge of a need for innovation can motivate information seeking activity about the innovation.

Innovation Attitude-Behaviour Dissonance consists of changing behaviour so that the individual's attitudes and actions are not in line. The individual's position in the matter of attitude to innovation was not matching with his innovation-behaviour. Such instances were considered to be Innovation Attitude-Behaviour Dissonance.

(b)   Innovation Behaviour-Confirmed Dissonance:

When an individual becomes aware of a new idea for which he has a favourable regard, the individual is motivated to adopt the innovation by the dissonance between what he believes and what he is doing.

During the confirmation stage, the individual wants supportive message that will prevent dissonance. Individual's position in the matter of innovation behaviour was not matching with confirmed innovation behaviour. Such instances were considered to be causes of dissonance.

(c)   Innovation Attitude-Confirmation Dissonance :

The individual may secure further information

which persuades that he should not have adopted. If
he originally decided to reject the innovation, the
individual may become exposed to pro innovation messa-
ges causing a state of dissonance which may be reduced
by adoption.

The confirmation stage continues after the
decision to adopt (or) reject the innovation. Individual's
attitude to innovation was not matching with confirmed
behaviour. Such instances were considered to be causes
of dissonance and it is designated as Innovation Attitude
Confirmation-Dissonance.

In the present study certain percentage of
the Secondary School teachers in their behaviour have a
consistant attitude towards innovation and certain percen-
tage of teachers may not be consistant in their behaviour.
This attitude behaviour discrepancy may result in a form
of cognative dissonance which has been termed as "Innova-
tion Dissonance".

Schools are divided into three broad categories,
namely Elementary, Secondary and Higher Secondary.
Secondary, schools include classes VIII to X (or) some
schools it is VI to X. As per the revised system of
education from June, 1978, some of the Secondary Schools
offered XI and XII Standards in their schools. However,
it may be noted that during the study of this problem

by the investigator, the 'Higher Secondary Education' was not prevelent, and hence class XI was not included in the Secondary School.

The Secondary Schools of Madras City were the subject of study on the dimensions of the "Innovation-Dissonance and its correlates".

The selection of the Secondary Schools of Madras city is made because of various reasons as follows:

(1)   Madras city has a number of all types of schools (Private, Missionary, Corporation and Government) which are well representative of the schools of Madras.

(2)   Innovative and Non-innovative schools are there in the city. Some of the schools are in the cosmopolite area and some from residential area. These informations were given by the Chief Educational Officer, Madras.

Delimitation of the Study:

As defined above, the problem for study is to locate the Innovation-Dissonance among Secondary School teachers of the city of Madras. The study becomes limited in the sense that it includes only high school teachers of the city of Madras and the reppective Headmasters.

173
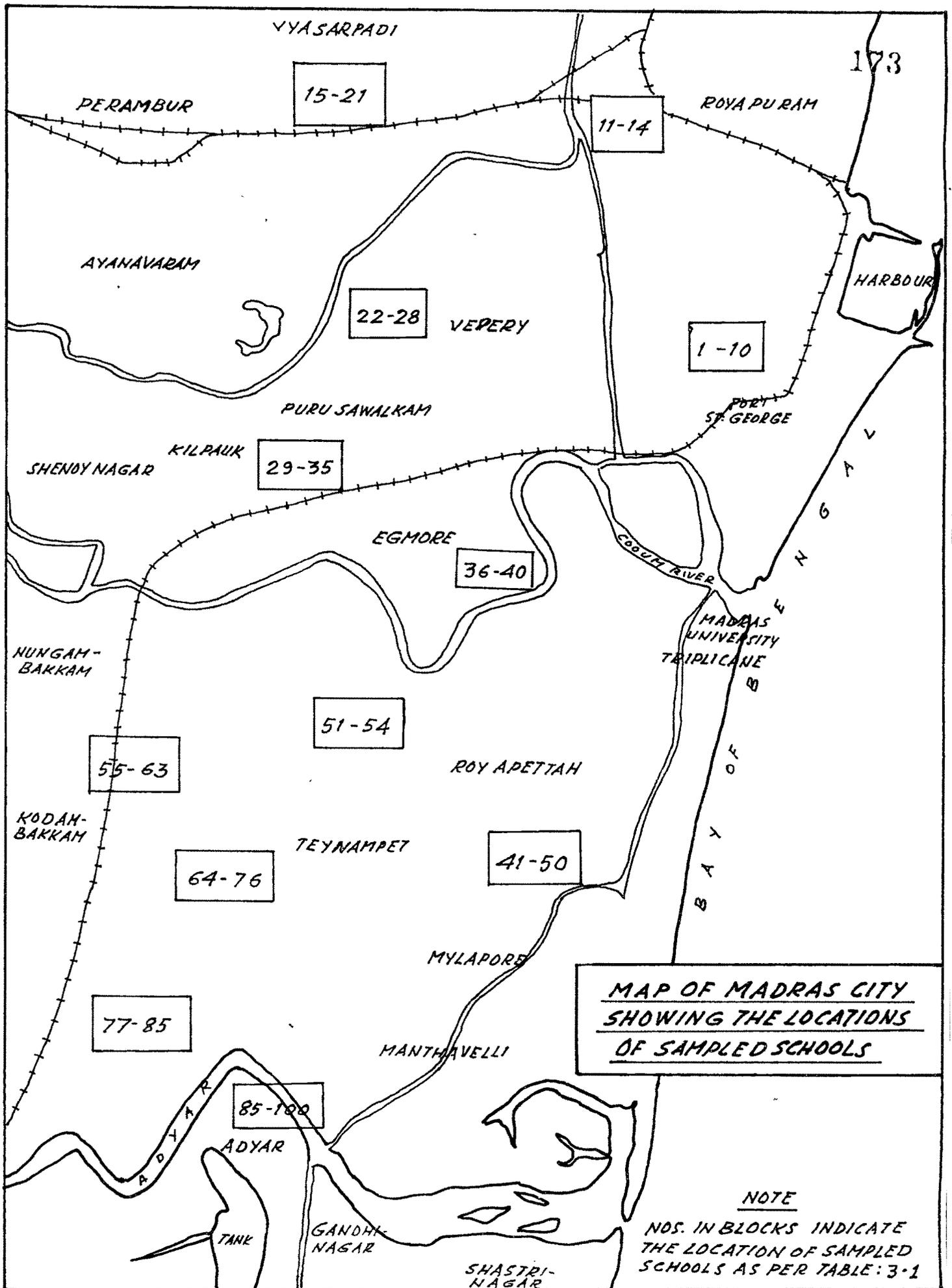
MAP OF MADRAS CITY
SHOWING THE LOCATIONS
OF SAMPLED SCHOOLS

NOTE

NOS. IN BLOCKS INDICATE
THE LOCATION OF SAMPLED
SCHOOLS AS PER TABLE: 3·1

3.13   BACKGROUND OF THE STUDY AREA :

Tamil Nadu is situated on the eastern side of the southern part of peninsular India. Madras had its origin as a settlement of the East India Company in 1639 and was soon the commercial as well as the administrative centre of almost the whole of South India. The capital of Tamil Nadu is Madras and is the largest city in south and also one of the 4 metropolitan areas in India. It is a major port town on the sea shore of Bay of Bengal and is most predominant for administrative, Industrial, educational and socio cultural activities. The Tamil name of this city is "CHENNAI".

Physical Features :   Madras is situated between 12° N and 13° 15' N latitude and 79° 15' and 80° 20' longitude. This occupies more or less one tenth of the extent of the state. The total area of Tamil Nadu is 130,069 sq.km. and the city has a population of 41,199,168. It accounts for 20% of the total urban population of the state, 22.5% of total workers, 27% of all industrial workers and 30.4% of students persuing higher education in the state.

The main factors considered in the determination of the area over which the city exercises its influences directly and which would constitute the metropolitan area were : (i) Physical factors (ii) Trends of urbanization

(iii) Movement of industrial workers (iv) Movement of students to higher educational institutions (v). Accessibility by mass transit.

Culturally also Madras has been the home of Karnatic music and Bharatha Natyam, the classical dance of the south.

GENERAL EDUCATION :

The schooling in the state is in a period of 12 years - 5 years at the primary school stage, 5 years secondary and 2 years as Higher Secondary. Education is free up to Higher Secondary stage and compulsory up to the primary school stage, 82% of the children in the age group 6 - 11, 51% in the age group 11 - 14 and 34% in the age group 14 - 17 are in schools. There are 305 primary schools, 265 middle schools and 101 high schools within the area of these 156 primary schools, 174 middle schools and 28 high schools are run by the local Government.

Again, as the study was conducted in Madras city and as the sampled population belongs to this district, the cultural influences of which cannot be ruled out, some of the findings may not be applicable to all section of teachers. However, the findings from the theoretical point of view, should be inductive of the general pattern of relationship among the variables under study.

According to the Secondary school leaving certificate Examination Board's list, there are 321 secondary schools in the city. From this, more than 100 schools are now having higher Secondary courses. Out of these 100 schools were selected from Missionary, Private Management, Corporation and Government Schools, for this study.

It is also limited in the sense that only English and Tamil Medium Schools were selected as a sample excluding Malayalam, Telugu and other medium schools. It is also limited in the sense that perception of teachers and principals alone are considered; and the perception of parents and students have not been considered.

3.14 THE OBJECTIVES OF THE STUDY :

In this study, there is a multi-dimensional approach to identify dissonance.

(1)   To study the Innovation-Dissonance of the teachers of Secondary Schools in the city of Madras with respect to their (a) Age (b) Sex (c) Teaching experience (d) Professional qualifications (e) Mobility (f) Inservice education programme (g) Professional reading habits and (h) Professional satisfaction

(2)   To study the Innovation Dissonance of the teachers of Secondary schools in the city of Madras with

respect to their personality variable like the
Temperament of the teachers.

(3)   To study the Innovation Dissonance of the
teachers of Secondary Schools in the city of Madras
with respect to the institutional variables such as
Leadership Behaviour patterns of principals, Organiza-
tional climate of the schools, the innovati^{ve}ness of the
schools and the types of Management of the schools.

(4)   To study the Innovative Proneness of the
teachers of Secondary Schools in the city of Madras with
respect to their personal variables like (a) Age (b) Sex
(c) Teaching experience (d) Professional qualifications
(e) Mobility (f) Inservice education programme
(g) Professional reading habits and (h) Professional
satisfaction.

(5)   To study the Innovative proneness of the
teachers of Secondary schools in the city of Madras
with respect to their personality variable like the
Temperament of the teachers.

(6)   To study the Innovative-Proneness of the
teachers of Secondary schools in the city of Madras with
respect to the institutional variables like Leadership
Behaviour patterns of Principals, Temperament of
principals, Organizational Climate of the schools,

Innovativeness of the schools and the types of Management of the schools.

(7)   To find out the inter correlations among the components of Innovative Proneness Scale, LBDQ, OCDQ, and Thrustone Temperament Schedule.

THE PROCEDURE (METHODOLOGY) :

Selection of Variables :

From the doctorial studies conducted earlier in India, it is learnt that there are numerous variables which contribute to the innovative structure of an educational institution. Different variables have been studied in combination with each other in which those variables were found to relate the process of innovation-adoption, innovative-proneness, diffusion or barriers and dissonance. Keeping in mind the above facts, the selection of variables both personal and institutional have been done for this study.

Major Variables :

1)   Attitude to innovation-indicating the secondary school teachers attitude toward innovation.

2)   Situational and Innovation characteristics - a measure of behaviour of teachers while adopting innovation.

(3)   Change Related Values — a measure of mental
      faculties suited for adoption, (or) rejection
      of innovation.

(4)   Leadership behaviour of the Principal — the
      attitude of the headmaster towards his
      subordinates and change.

(5)   Organisational Climate — indicating the climate
      of the school in terms of the staff-rated scores
      for eight dimensions.

(6)   Temperament of teachers and headmasters.

Other Variables :

        Besides the above major variables there are many
more variables that are found to affect both directly and
indirectly the dissonance state of teachers of secondary
schools viz. (1) Age (2) Sex (3) Teaching Experience
(4) Professional qualification (5) Mobility (6) Inservice
Education Programme (7) Professional Reading Habits
(8) Professional satisfaction (9) Innovative characteris-
tics of schools and (10) types of schools.

        In order to validate the selection of these
variables, a number of research scholars and experts
working in allied areas were consulted and suitable modi-
fications were carried out.

The Innovative Proneness scale having 150 items was given to a large group of judges. Twelve judges were selected for this purpose. The judges were instructed as follows:

"These Questionnaire contain 150 items regarding innovative proneness of teachers and correlates such as Leadership Behaviour, Organisational Climate and Thrustone Temparament schedule. You are requested to go through each item carefully and give your opinion whether this tool can be utilised in Madras City to locate the Innovation Dissonance of Secondary School teachers".

Out of the 12 judges, 10 responded, and their names are given in Appendix III. The following table gives the composition of ten judges who responded.

TABLE : 3:0:2

THE COMPOSITION OF JUDGES

PROFESSION	No. OF JUDGES
Training College Principals	2
Professors	2
Readers	2
Headmasters	2
Educationist	2
	Total : 10

From their responses it is found that they all
uniformly agreed to use the tools to find the Innovation
Dissonance among the teachers in Secondary Schools in
the city of Madras.

3.20   INNOVATIVE PRONENESS SCALE :

Purpose :

Patel (1980) has developed an instrument known
as Innovative proneness scale to measure the innovativeness
of secondary and higher secondary school teachers.
Panchal (1977) has developed a similar tool to measure the
innovativeness of teacher educators. The adopted version
of the same tool was used to locate the innovation
dissonance of secondary school teachers in Madras City.

Description of the Innovative-Proneness Scale :

Attitude behaviour discrepancy may result in a
form of cognitive dissonance which has been termed as
"Innovation dissonance" - viewed in terms of dissonance
theory (Festinger, 1957) or balance theory (Heider, 1958)
it may be hypothesised that the resultant strains and
tensions induced in the individual will be resolved by
various dissonance- reducing mechanisms, depending upon
the individual's latitude of tension tolerance. The
consequence of undue stress and functional adoptation
require further exploration. Various modes or accomodation

are suggested in Kelman's (1960) compliance theory. In order to predict behavioural outcomes, the attitudes towards both the innovation and the situation need to be considered (Rokeach, 1967).

To explore the dimensionality of general change and innovation and specific attitudes and behaviours the tool has four instruments consisting of four main scales and three correlates. They are given below:

1. Section   I   —   The Inventory of Attitudes to Innovation (I.A.I).

2. Section   II A —   The Situational Charateristics Scales (S.C.S.).

⁚. Section   II B —   The Innovation Characteristics Scales (I.C.S.)

3. Section   III —   The change Related Values Questionnaire (C.G.Q.)

4. Section   IV —   Biographical Data.

(a)   DESCRIPTION OF EACH SECTION SCALE :

i)   The Inventory of Attitude to Innovation (I.A.I):

The I.A.I. is a closed form — Likert type summated rating scale designed to measure teachers' predisposition to adopt educational innovations.

2)   Teachers' Perception of Situational & Innovational Characteristics :

Research on the determinants and correlates of teachers 'Innovativeness' suggests that 'antecedents conditions' to use Roger's term (1963) for the successful

adoption of innovations include three major sets of variables.

    i.   Situational Variables

    ii.   Characteristics of the Innovations

    iii.   Personal Variables.

3)   <u>The Change Related Values Questionnaire</u> :

The relationship between teacher innovativeness and their general change$ related attitudes and values has been the subject of several studies.

SECTION IV BIOGRAPHICAL DATA :

On a seperate Questionnaire respondents were requested to provide information on the variables like, Age, Sex, Teaching Experience, Professional Qualification, Mobility, Inservice Education, Professional Reading Habits and Professional Satisfaction.

I.   The Inventory of Attitude to Innovation has the following seven main components i.e. types of Innovation hypothesised.

    1)   Innovations in 'Individualization'.

    2)   Innovations in 'Curriculum Organisation'.

    3)   Innovations in 'Teaching Learning Process'.

    4)   Innovations in 'Teaching Resources'.

    5)   Innovations in 'Internal School Organisation'.

    6)   Innovations oriented towards 'Staff Development'.

    7)   Innovations in 'School Community Relationship'.

SECTION IIA   THE SITUATIONAL CHARACTERISTIC   SCALES :

8)   Teachers' Perception of the degree and kind of
          administrative support provided for innovation
          in the schools (Administrative support).

9)   Teachers' perceptions of the change related norms
          and values of their colleagues (Staff norms).

10)   Teachers' perception of the change-related norms
          and values in the educational system (system-norms).

11)   Teachers' perception of the complexity of the
          innovation (complexity).

12)   Teachers' perception of the compatibility of the
          innovations (Compatibility).

13)   Teachers' perception of the degree of risk involve
          in adoption (Riskness).

14)   Perceived 'local' orientation of the innovation
          (localiteness).

15)   Perceived cosmopoliteness of the innovation
          (Cosmopoliteness).

SECTION   III THE CHANGE RELATED VALUES QUESTIONNAIRE :

16)   Traditionalism.
17)   Progressivism.
18)   Dogmatism.
19)   Venturesomeness.
20)   Conservatism.
21)   Change Proneness.

VALIDITY, RELIABILITY AND ESTABLISHING NORMS :

(A)   Validity of the Innovative Proneness scale has been studied by the Investigator in the following ways.

1) Content Validity.

2) Rating of the teachers with the rating of the Principals or Heads.

3) Item analysis by Phi-coefficient formula.

1)   CONTENT VALIDITY :

All questionnaire items have relied principally on the definitions of 'Innovative Proneness' given by experts. Again, the principals and teachers were interviewed and finally arrived at 21 components.

2)   RATING OF THE TEACHERS WITH THE RATING OF THE PRINCIPALS OR HEADS :

For testing the Validity of the questionnaire the investigator selected six schools from Madras City. They discussed these tools with the principals of the selected schools and requested him to spare 6 teachers, two each with 1) high innovative proneness, 2) average proneness, and 3) low proneness. The questionnaire containing 150 items was distributed to those teachers for giving their responses in five point scale.

1. V.H. — Very High

2. H   — High

3. A   — Average

4. L   — Low

5. V.L. — Very Low.

The investigator collected the responses from 16 teachers from 10 selected schools and requested the principals to give their opinion about each teacher relating to his innovative proneness with respect to the components. Studying the responses of the selected teachers the positive statements were assigned values as 5,4,3,2,1, and 0, and the negative statements the values assigned were 0,1,2,3,4, and 5. Thus the total value scores of each teacher were further subdivided into components. Correlations were determined between the principal score and the teachers' score. It was seen that the product movement coefficient correlation between the two sets of scores were .87, meaning a fairly good coefficient of correlation showing that Questionnaire agreed with principal's estimate.

3)   ITEM   ANALYSIS :

Item validation was also done through Phi-coefficient formula. It showed the relation of items with each other. So there was no need for cross validation. These proved that the Questionnaire was valid.

(B)   THE RELIABILITY OF THE PRESENT QUESTIONNAIRE:

The investigator decided to check the reliability of the present questionnaire by the following methods.

1) The Test-Retest Method.

2) The Split-Half Method.

1)   THE TEST-RETEST   METHOD :

The Investigator employed the Test-Retest Method
for determining the reliability of the present scale.
In their work 100 teachers of Secondary Schools of Madras
City were administered the Questionnaire on 15th March,1979
and the same group of teachers were administered on 12th
April, 1979. i.e. after 27 days of interval. The scores
of the subjects at both the administrations were correlated.
The correlation between the first and the second sets of
scores gave an estimate of the reliability Coefficient.
The mean score of the first administration was found to
be high as compared to the mean score on the second
administration. The correlation between the first and
the second set of scores was found by the product, moment
method.

$$r = \frac{\sum \frac{x'y'}{N} - c_x c_y}{\sigma' x \sigma' y}$$

The Test-Retest correlations for total scores
and for factor scores are listed in Tables given below.

TABLE : 3:0:3

TEST-RETEST CORRELATIONS FOR TWENTYONE COMPONENTS

OF INNOVATIVE PRONENESS OF TEACHERS.

No. of Section	No.of Items	Factor No.	Name of the Factor	Correlation
I	5	1	Individualisation	.62
	3	2	Curriculum Organisation	.63
	5	3	Teaching-Learning Process	.67
	4	4	Teaching Resources	.89
	5	5	Internal School Organisation.	.67
	5	6	Staff Development	.63
	3	7	School Community Relationship.	.64
TOTAL SCORE 30		7	The Inventory of attitudes to Innovation	------ .82
II	12	1	Administrative Support	.89
	8	2	Staff Norms	.96
	6	3	System Norms	.87
	6	4	Complexity	.85
	6	5	Compatibility	.77
	6	6	Riskness	.91
	8	7	Localiteness	.85
	8	8	Cosmopoliteness	.80
TOTAL SCORE 60		8	The Situational and Innovation Characteristics Scale.	.79

No. of Section	No. of Items	Factor No.	Name of the Factor	Correla-tion.
III	10	1	Traditionalism	.91
	10	2	Progressivism	.94
	10	3	Dogmatism	.80
	10	4	Venturesomeness	.84
	10	5	Conservatism	.91
	10	6	Change Proneness	.76
TOTAL SCORE	60	6	The Change Related Values Questionnaire	.83
GRAND TOTAL	150	21		.85

The reliability of the above questionnaire is no where less than 0.73 in Section II and III, and .60 in Section I. Therefore, it is concluded that the scale is sufficiently reliable.

TABLE : 3:0:4

(2) RELIABILITY OF THE QUESTIONNAIRE BY THE SPLIT-HALF METHOD :

Reliability Coefficient of Each Section by Split-Half Method is given below:

No.of Section	No.of Items	No.of Components	Reliability Coefficient
I	30	7	0.91
II	60	8	0.90
III	60	6	0.67
TOTAL :::	150	21	0.79

The reliability was found out by split-half method and it was highly correlated 0.91, 0.90 and 0.67 respectively.

N O R M S :

The investigator has given this questionnaire for measuring innovation dissonance of Secondary School teachers. The reliability and validity were also been worked out with respect to each component of the three section of the scale. The result in the form of percentile scores have been given in the tables 3.21 to 3.23 in the following pages.

TABLE : 3:0:5

PERCENTILE POINTS OF THE COMPONENTS OF SECTION-I : THE INVENTORY OF

ATTITUDES TO INNOVATION

Percentile Points	Individua- lisation	Curriculum Organisa- tion	Teaching- Learning Process	Teaching Resources	Internal School Organi- sation	Staff Develop- ment	School Community Relation- ship	The Inven- tory of Attitudes to Innovation
90	24.0	15.0	24.0	20.0	25.0	25.0	25.0	158.0
80	24.0	14.0	24.0	19.0	24.0	24.0	23.0	152.0
70	23.0	14.0	23.0	19.0	23.0	23.0	22.0	147.0
60	22.0	13.0	22.0	18.0	22.0	21.0	22.0	140.0
50	22.0	13.0	22.0	17.0	20.0	20.0	21.0	135.0
40	21.0	13.0	21.0	17.0	20.0	20.0	20.0	132.0
30	21.0	12.0	20.0	16.0	19.0	18.0	18.0	124.0
20	19.0	12.0	18.0	14.0	18.0	16.0	17.0	114.0
10	16.0	11.0	17.0	12.0	16.0	16.0	15.0	103.0

The Components : Internal School Organisation, Staff Development and School Community

Relationship have the highest percentile (25.0), and Curriculum

Organisation has the lowest percentile (11.0).

TABLE : 3:0:6

PERCENTILE POINTS OF THE COMPONENTS OF SECTION II. THE SITUATIONAL AND INNOVATION CHARACTERISTICS SCALE

Percentile Points	Administrative Support	Staff Norms	System Norms	Section II Situational Characteristics Scale	Complexity	Compatibility	Riskness	Localiteness	Cosmopoliteness	Section II B Innovation Characteristics Scale	Section II The Situational and Innovation Characteristics Scale
90	38.0	56.0	30.0	124.0	28.0	29.0	40.0	40.0	30.0	167.0	291.0
80	36.0	48.0	24.0	108.0	27.0	28.0	39.0	40.0	28.0	162.0	270.0
70	34.0	46.0	21.0	101.0	27.0	27.0	38.0	39.0	24.0	155.0	256.0
60	32.0	38.0	20.0	90.0	25.0	25.0	35.0	38.0	22.0	154.0	235.0
50	30.0	35.0	18.0	83.0	23.0	25.0	34.0	37.0	20.0	139.0	222.0
40	28.0	32.0	16.0	76.0	21.0	24.0	32.0	35.0	18.0	130.0	206.0
30	26.0	27.0	14.0	67.0	21.0	22.0	30.0	32.0	16.0	121.0	188.0
20.	24.0	19.0	13.0	56.0	19.0	20.0	28.0	30.0	14.0	111.0	167.0
10	20.0	14.0	12.0	46.0	18.0	19.0	26.0	28.0	12.0	103.0	149.0

The Components : The Staff Norms has the highest percentile (56.0) and the System Norms and Cosmopoliteness have the lowest percentile (12.0).

TABLE : 3:0:7

PERCENTILE POINTS OF THE COMPONENTS OF SECTION-III THE CHANGE

RELATED VALUES QUESTIONNAIRES

Percentile Points	Traditiona- lism	Progre- ssivevism	Dog- matism	Venture- someness	Conser- vatism.	Change Proneness	Section III The Change Related Values Questionnaire.
90	48.0	48.0	46.0	44.0	45.0	50.0	281.0
80	46.0	47.0	42.0	40.0	40.0	48.0	263.0
70	44.0	46.0	38.0	38.0	36.0	48.0	250.0
60	41.0	44.0	35.0	35.0	33.0	45.0	233.0
50	39.0	40.0	33.0	31.0	32.0	43.0	218.0
40	37.0	38.0	30.0	30.0	31.0	42.0	208.0
30	36.0	36.0	28.0	29.0	27.0	40.0	196.0
20	34.0	34.0	25.0	28.0	26.0	37.0	184.0
10	31.0	32.0	22.0	27.0	24.0	35.0	171.0

TABLE : 3:0:8

A SCHEMATIC PRESENTATION OF THE NUMBER OF COMPONENTS
AND THE NUMBER OF ITEMS IN EACH COMPONENT OF THE
INNOVATION SCALE FOR TEACHERS OF SECONDARY SCHOOL.

===

SECTION : I

THE INVENTORY OF ATTITUDES TO INNOVATION

No.	Components	Items
1.	Individualization	5
2.	Curriculum Organization	3
3.	Teaching-Learning Process.	5
4.	Teaching Resources.	4
5.	Internal School Organisation.	5
6.	Staff Development.	5
7.	School Community Relationships.	3
	TOTAL :	30

===

SECTION : II

A — THE SITUATIONAL CHARACTERISTIC SCALE			B — THE INNOVATION CHARACTERISTIC SCALE		
No.	Components	Items	No.	Components	Items
1.	Administrative Support.	12	1.	Complexity	6
2.	Staff Norms	8	2.	Compatibility	6
3.	System Norms	6	3.	Riskness	6
			4.	Localiteness	8
			5.	Cosmopoliteness	8
	SUB TOTAL	26		SUB TOTAL ..	34

===

SECTION : III

THE CHANGE RELATED VALUES QUESTIONNAIRE

No.	Components	Items
1.	Traditionalism	10
2.	Progressivism	10
3.	Dogmatism	10
4.	Venturesomeness	10
5.	Conservatism	10
6.	Change Proneness	10
	TOTAL :	60

Innovative proneness scale (I.P.S.) was used for locating innovation dissonance of Secondary School teachers under study. In this tool there are 150 items — 30 items in Section I, 60 items in Section II, and 60 items in Section III covering the opinions and feelings of secondary school teachers on innovative practices and related educational issues in the secondary schools of Madras city. The schematic presentation of the number of components and the number of items in each component of the innovative proneness scale for teachers is given in the Table: 3.11.

There are 21 components in the Innovative proneness Scale. Section I consists of 7 components

which refer to the attitudes towards innovation. These
components are : Individualisation, Curriculum Organisa-
tion, Teaching-Learning Process, Teaching Resources,
Internal School Organisation, Staff Development, and
School Community Relationship. These components indi-
cate the areas where the innovations are to be introduced.

These areas refer to the day to day class
room teaching. The school community relationship are
to be strengthened so that the teaching learning process
in the class room is improved.

Section II is related to the process of change
in education which is classified into two parts.
(1) The situational characteristics and (2) the Innova-
tion characteristic. The process of change depends on
the nature of the structure and other characteristics of
the school and the nature of the innovation to be
introduced under circumstances favourable and unfavourable
of it.

TABLE : 3:0:9

A SCHEMATIC PRESENTATION OF THE NUMBER OF COMPONENTS
AND THE NUMBER OF ITEMS IN EACH COMPONENT OF THE
CORRELATES USED TO MEASURE DISSONANCE STATE OF THE
SECONDARY SCHOOL TEACHERS.

SECTION : IV

LEADERSHIP BEHAVIOUR DISCRIPTION QUESTIONNAIRE.

No.	Components	Items
1	Initiating Structure	15
2	Consideration	15
	Total ::::	30

SECTION : V

ORGANISATIONAL CLIMATE DISCRIPTION QUESTIONNAIRE

No.	Components	Items
1.	Disengagement	10
2.	Hindrance	6
3.	Esprit	10
4.	Intimacy	7
5.	Aloofness	9
6.	Production Emphasis	8
7.	Thrust	8
8.	Consideration	6
	TOTAL :	64

SECTION : VI

THRUSTONE TEMPERAMENT SCHEDUELE

No.	Components	Item
1.	Active Trait	20
2.	Vigorous Trait	20
3.	Impulsive Trait	20
4.	Dominant Trait	20
5.	Stable Trait	20
6.	Sociable Trait	20
7.	Reflective Trait	20
	TOTAL :	140

Grand Total : Components — 17

Items — 234

The situational characteristics depend on administrative support, staff Norms and System Norms.

In the present study, the asumption is that innovation dissonance is basically linked to factors like (1) The leadership behaviour (2) Organisational climate and (3) Temperament of teachers and principals. To measure all the above aspects, many of the standardized tools that have been used in earlier Doctoral Research studies were used. Most of them are in the form of Questionnaire with Likert type items.

3.21   LEADERSHIP BEHAVIOUR DESCRIPTION QUESTIONNAIRE :

The L.B.D.Q. was developed and standardised
in U.S.A. Hemphil and Coons (1950) developed this for
the personal research Board of Ohio State University, to
measure the leadership behaviour of a group leader.
The reliability coefficient of the two major dimensions
measured by the tool via. initiating structure and con-
sideration was found to be 0.93 and 0.86 respectively.

This tool has been used in Ohio State
leadership assessment studies by Halpin and Winer (1952)
and also used for Aircrew Studies by Halpin (1954-56)
and several others in U.S.A.

Indian researchers like Sharma (1973),
Pandya (1974), Darji (1975), Shelat (1975), Mahendra
Chokshi (1974), Tikmani (1976) and Gupta (1976) have
used this tool in their Doctoral studies. And thus
the validity and reliability have been well established.

3.22   ORGANISATIONAL CLIMATE DESCRIPTION QUESTIONNAIRE:

The tool was constructed by Andrew W. Halpin and
Don B. Croft (1963). This is composed of 64 Likert
type items and is administered to a group of teachers in
each school to get a pooled opinion or description of
the climate of their school. Nelson (1960) has classi-
fied the organisational climate into four types viz.
(1) the bureaucratic (2) the autocratic, (3) idiocratic

and (4) democratic. However, Halpin and Croft have identified six categories of climate, with 'openness' at one end of the continuum and 'the closedness' at the other end.

The organisation climate Description Questionnaire by Halpin and Croft (1963) was standardised on 71 elementary schools chosen from six different regions of United States taking 1151 teachers as the respondents. This tool has also been used by different researchers in India.

3.23   THURSTONE   TEMPERAMENT   SCHEDULE :

Purpose :

Most tests describe a person in terms of psycholic of neurotic tendencies. Since for practical purposes most of us are reasonably well adjusted, these clinical streotypes do not seem to provide the best method for describing personality traits. We need a schedule that emphasizes important stable traits which describes how normal, well adjusted people differ from each other.

The Thurstone Temperament Schedule (Appendix-R) was devised for this purpose. It is limited to a practical description of important aspects of temperament and makes no attempt to appraise the degree of conflict, insecurity, or maladjustment. It is designed to assess

those traits which are relatively permanent for each person, and excludes those which reflect recent social experience, social identifications, disturbing experiences, or exposure to propoganda. However, because of this limitation in depth the schedule has unusually broad coverage. Seven areas of temperament are appraised in a relatively short questionnaire.

Description of the Areas Covered by the Schedule :

The seven areas of temperament namely Active, Vigorous, Impulsive, Dominant, Stable, Sociable and Reflective are described in chapter on "Problem" under the heading "Description of Independent Variables - Personality Traits".

Format :

The 140 items covering the seven areas are printed in a six-page step down booklet. This booklet can be used with either a self-scoring carbon answer pad or a machine-scored answer sheet. Both of these have adult and boy and girl profiles, printed on them. The self-scoring answer pad has the unique feature of only indicating the correct answers.

Administration :

The Thrustone Temperament Schedule is self administering. It may be given with or without supervision, in a group or individually.

The directions for taking the test are
printed on the first page of the schedule. Subjects
are instructed to read them carefully. The administrator
also can read the directions aloud if he wishes.
This is sometimes helpful in group situations. No
comments should be made about the items in the schedule
before or after the test has started. There is no time
limit. Sufficient time must be allowed for everyone
to complete all items. Twenty, minutes time is usually
adequate. As each individual finishes, his answerbook
must be checked, if he has left any item, he is asked to
complete it.

Response Mode :

Three alternate responses namely 'yes' "?"
and "No" are provided against each of the items of
the schedule. The subject is asked to give his response
by placing a tick mark against any of the three alter-
natives which reveals his answer best.

Scoring :

Scoring of the items can be done manually as
well as by machine. Only correct responses are scored.
Every correct response is given a score of one. A total
score for each subject on each trait is obtained.

Norms :

Norms of the schedule are based on four
different groups.

The first group consists of 694 freshmen
and 161 freshmen women, attending the University of
Illinois. The second group is made up of 419 boys and
504 girls drawn from five Chicago high schools. The
third group comprises of 540 male and 496 female office
workers, stenographers, typists, receptionists, file
clerks, book-keepers, machine operators, coordinators,
etc. The age range of this group is from 20 to 55, but
the majority is from 25 to 45. The fourth and last
group is composed of 1234 adult males and 657 adult females.
Thus the schedule has four separate norms for male and
female university students, high school boys and girls,
male and female office workers, and male and female
adults.

Reliability :

The reliability for the seven areas of the
schedule have been computed by split-half method for the
four groups viz. men, women, high school boys and high
school girls. The odd-even correlations were computed
and then reliabilities were estimated by the Spearman-
Brown correction for double length. Reliabilities were
also calculated for a fifty group consisting of men and
women seeking counseling and employment through the

University of Chicago. These reliability coefficients
are shown in table.3:0:10.

TABLE : 3:0:10

THE RELIABILITY COEFFICIENT OF THURSTONE
TEMPERAMENT SCHEDULE.

	Men	Women	Boys	Girls	Employment & Guidance Group
Active	.48	.46	.48	0.50	.51
Vigorous	.61	.63	.59	.67	.68
Impulsive	.65	.65	.62	.70	.70
Dominant	.77	.77	.82	.83	.86
Stable	.63	.64	.59	.63	.55
Sociable	.68	.73	.69	.78	.76
Reflective	.73	.62	.60	.48	.45
N	200	157	236	277	106

Validity :

To determine the validity a study was conducted
with ten group of sales employees of a national retail
company. The supervisor of each group completed a forced
choice rating scale for each of his employees. The
scales included pairs of items describing the seven traits
measured by the schedule. In each pair one item described
behaviour typical of the high scoring individual and the

other typical of the low scoring individual. Supervisors
selected the item of each pair that best described the
employee.

Ratings were compared with the employees' actual
test performance. Biaerial coefficients of correlation
between the ratings and actual test performance were
found to be very high. These coefficients, shown in
table-4 indicate that, behaviour can be described
accurately by the Temperament schedule.

TABLE : 3:0:11

BIAERIAL COEFFICIENT OF CORRELATION BETWEEN

THE RATINGS AND THE TEST

	Active	Vigo-rous	Impul-sive	Domi-nant	Stable	Socia-ble	Reflec-tive
R r_{bis}	.95	.93	1.00	.92	.90	.98	.81

The validity of the Thurston Temperament schedule
has also been studied by using effectiveness of job
performance as a criterian. The subjects in various
studies were teachers, office workers, retail store sales
employees, sales supervisors, and managers of retail stores.
The procedure in general was to compare schedule scores

of groups of employees rated "high" or "good" in performance with scores of employees rated "Low" or "poor" and to determine the significance of the difference of the two groups.

3.24   DESCRIPTION OF THE DIMENSIONS OF THE TOOLS :

The situational and Innovation characteristics consists of eight dimensions. The situational characteristics depend on (1) Administrative Support (2) Staff Norms and (3) System Norms.

This means there are a number of facilitating and hindering forces within the social structure of the school. According to Miller (1967) such forces as the nature of peer social relationships, teacher-principal relationships, norms and standards for professional behaviour and the organisational climate of the school system appear to be relevant. Initial force is the innovative practice itself and those characteristics of the practice that make it more or less attractive or adoptable by other teachers. These characteristics are complexity, compatibility, Riskness, Localiteness, and cosmopoliteness. These terms need further explanation.

Complexity :

The understanding of the innovation, innovative proneness, and innovative dissonance differ from individual to individual. Complexity is the degree to

which an innovation is perceived as difficult to under-
stand and use.

Compatibility :

An innovation perceived as consistant with
the existing values, past experience and needs of the
receiver is called compatibility. Compatible idea has
its own weight because it can be adoptable by all. An
idea that is not compatible cannot be adopted so rapidly
as an idea that is compatible, because this idea is liked
by all and incompatible idea is disliked by all.
According to Rogers, and Shoemaker (1971) an innovation
may be compatible with Socio-cultural values and beliefs
with previously introduced ideas or with clint needs of
innovations.

Riskness :

Even if an innovation is compatible, the adopter
has to take a certain amount of risk. Those who are
having innovation dissonance in their mind may have to
take a heavy risk in adopting innovation. One may be
a lover of adopting innovative practice, or a hater
of adopting innovative practice, but whatever may be
his attitude of mind, he has to undergo a little risk
while adopting the innovative practice. Depending on
one's temperament or personality traits one may adopt
innovation in spite of the risk involved.

Localiteness :

According to Rogers and Shoemaker (1971) in adopting innovation a strong belief in one's local system rather than looking beyond it is called localiteness. Generally localite persons are concerned with what they think and imagine is right according to them. They never bother about the external world. Sometimes their views may be entirely different from the view of others.

Cosmopoliteness :

According to Miles, (1964) and Rogers and Shoemaker, (1971), Cosmopoliteness is considered to be the degree to which an individual's orientation is external to a particular social system. According to Miles (1961) it has been found repeatedly that greater personal innovativeness is associated with cosmopoliteness, which is the result of experience in more than one social system.

SECTION III

Section III is the values and opinions in Education which includes six components namely, Traditionalism, Progressivism, Dogmatism, Venturesomeness, Conservatism and change Proneness.

TRADITIONALISM :

Tradition means handing down from generation to generation of opinions, beliefs, customs etc.,

in short, handing down the opinion or belief from the past. Now-a-days innovations are being introduced in all educational institutions. According to Rogers and Shoemaker (1971) a traditional system embodies, the opposite characteristics when it is compared with innovation adoption system.

PROGRESSIVISM :

One who is always concerned about his own development, is called a Progressive man. In other words, Progressivism is the characteristics of a person who always wants to progress. The progressive students always look for their own further progress. The progressive school always look for new ideas leading to further progress. The Progressive teachers always look for his personal professional progress and the progress of the school. In order to fulfil their ambition, the progressive man always tries to adopt innovations. Progressivism is of value to them.

DOGMATISM :

Dogma means a belief or a system of beliefs, put forward by some authority to be accepted as true without questions. Dogmatism means a set of strong beliefs. The highly dogmatic persons would not welcome new ideas.

VENTURESOMENESS :

Venture means an undertaking in which there is risk, or be brave enough to undertake something which involves risk. Venturesomeness means taking initiative steps to do new things, always ready to carve a new path. When we compare the characteristics of venturesomeness with that of innovativeness, we can very well say that they complement and supplement each other.

CONSERVATISM :

Conservativeness is opposed to great or sudden change. Conservatism means a tendency to maintain a state of affairs without great or sudden changes. Innovativeness means adoption of new changes or ideas. So, conservativeness is inversely related to innovativeness.

CHANGE PRONENESS :

The attitude of the person towards the change is called change proneness. It is the general conclusion that those who are interested in change are also prone to innovation. Innovativeness and change proneness are closely related.

The components of the leadership Behaviour Description Questionnaire are as follows:

Section IV - Leadership Behaviour covers

two parts (1) Initiating Structure and (2) Consideration.

The word lead means to go ahead, control, manage or direct. The word "leader" means one who can control or manage or direct and one who is always ahead of others. Here in this study "Leadership Behaviour" refers to the behaviour of Secondary School Headmasters or Head mistresses. As far as the present needs of the educational institutions are concerned, it is expected from the Principals or Headmasters or Head mistresses of the Secondary schools that they perform two basic functions and that is:

1. They must be 'task - oriented'.

2. They must be 'person-oriented'.

The principals must be task-oriented in that they must establish and seek to fulfil certain goals, and they must be person-oriented in that they must try to meet the personal needs of their staff members. In the terminology of Getzels and Guba (1957) they must try to maintain the balance between the idiographic and nonethetic dimensions of the schools. In the terminology of Hemphill and Coons (1957) they must strike a balance between dimensions of "Initiating Structure" and "Consideration". According to Halpin (1966), "Initiating Structure" refers to the formal relationship which the headmaster has with his staff. The principal who receives high score

on this dimension makes his attitude clear to the staff
criticises poor work, maintains definite standard of
performance, persuades staff members to follow, standard
rules and regulations. Again in the words of Halpin
(1966), "Consideration" refers to the informal relation-
ships which the principal (H.M.) has with his staff.
The principal who scores high on this dimension does
personal favours for his staff members, finds time to
listen to them, puts their suggestions into operation,
and get their approval on important matters before going
ahead.

On the part of Principals (H.M.), four
patterns of Leadership-Behaviour are seen. They are
(1) H H Pattern, (2) L L Pattern (3) HL Pattern
(4) LH Pattern.

(1) "H H Pattern denotes, high both on the
"Initiating Structure" and "Consideration" dimensions of
the Leadership-Behaviour.

(2) "LL" pattern denotes low both on the
"Initiating Structure" and "consideration" dimensions
of the Leadership Behaviour.

(3) "HL" pattern denotes high on the
"Initiating Structure" dimension, low on the "considera-
tion" dimension.

(4) "LH" pattern denotes low on the

"Initiating Structure" dimension, high on "Conside-
ration" dimension.

In analysing the data given by the
consideration dimension of the tool "LBDQ" the
Quardrant scheme of Halpin (1966 p.99) is used. A
Quadrant scheme for Describing principals Behaviour on
Dimensions "Initiating Structure" and Consideration.

TABLE : 3:1:1

HALPIN'S QUADRANT SCHEME FOR DESCRIBING PRINCIPAL'S
BEHAVIOUR

CONSIDERATION

	BELOW MEAN	ABOVE MEAN	
Above Mean	H.I. (S) L.C. (-c) (N) Principals.4	H.I. (S) H.C. (c) 1 (N) Principals	Mean of Initi- ating Stru- cture
Below Mean	L.I. (-S) L.C. (-C) (N) Principals	L.I. (-S) H.C. (C) 6 (N) Principals	

Mean of
Consideration

According to Halpin (1966), the leaders
described in Quadrant I are evaluated as highly effective.

The individuals described in Quadrant II are ineffective leaders.

Shartle (1956) and his colleagues who have been referred to earlier, conducted the leadership studies in Ohio, and pointed out the criteria of 'leadership behaviour', of which one is sometimes called the 'human relation' and the other described as the 'get out of the work dimension'. Hemphill, and Halpin who followed Hemphill, identified these two dimensions as 'Initiating Structure' and "consideration".

It is concluded that the higher the meeting point of these two dimensions, the better is the leadership behaviour. When a leader receives a score equally at a high plane, on both the dimensions, he is considered to be very much effective. As measured by the LBDQ developed by Halpin and Winer (1952) on the line of Hemphill (1950) if a leader shows high 'consideration' for his colleagues, if he exhibits a real interest in the personal needs of the members of the group even when he is taking initiative in getting the work done from them, he is considered to be an effective leader. High scores on the dimensions of 'initiating structure' manifest the behaviour of the leader who clarifies goals, and organizes for the completion of task. His leadership behaviour can be called to be more institution-oriented. A leader who receives high score on 'consideration'

and low score on 'Initiating Structure' is more person oriented and is less effective with this pattern of behaviour as well. Only those leaders prove to be effective when they show scores high enough on both the dimensions.

According to Goldman (1972) a lack of effective leadership on the part of principals of the school disintegrates the conditions for the development of a true school community. In the context of the schools, the notion of leadership is associated with the instructional leadership of the principal. This indicates that to be an effective leader of a school, a principal should be effective on his instructional side as well. Every principal is basically a teacher first and an administrator later.

Parallel to "initiating structure" and "consideration", many other researchers identified the dimensions of leadership behaviour as task dimension, and human dimension, the former one ensuring the satisfaction of social and psychological needs of the personnel of the organization. The research indicates that effective leadership is manifested when the designated leader acts in such a way as to ensure satisfaction of both. According to Tennenbaurn (1961) this can be presented in a figure as shown in the chart III given on the next page.

A reciprocal relation exists between the task and human dimension. This implies that attention should also be devoted to the task dimension of leadership process. As described in the modified diagram given in the Chart-III, the task dimensions has two aspects : One is 'commitment aspect', and the other is 'specific aspect'. The first aspect refers to the efforts of the participant to the improvement of the total organization in addition to his own job that is assigned to him. The second aspect refers to the specific job he is expected to do. In the interest of the organisation the leader has to strike a balance sufficiently at a high level on both the dimensions and the workers have to strike a balance between the 'commitment aspect' and 'specific aspect'.

From the brief account of the attempts of various research workers to study leadership behaviour of various types of leaders in various institutions and organizations given above, it is very clear that they accept the two dimensions of leadership behaviour : viz. "Initiating Structure" and "consideration" depicted by Hemphill and Halpin. Everybody seems to agree on the point that effective and efficient leaders are those, who receive high scores on both the dimensions. Low score on one of the dimensions and low scores on both the dimensions are indicative of poor leadership behaviour.

Another point which is worth noting is that the LBDQ developed by Halpin and Winer is a very useful instrument for appraising the two dimensions of leadership behaviour. Thirdly, Miles (1964) has added the additional criterion to the effectiveness of leader behaviour by saying that leadership is ineffective and deserves improvement when the group members do not learn to acquire skills and efficiency to get the work done and to achieve the goals of the institution. These "specific skills" of every worker and the "general efficiency" of the organization as a whole are supported also by Tannenbaun (1968).

Fourthly, effective leadership behaviour receiving high scores on both the dimensions will create inspiring and stimulating climate for the workers so that they can enjoy high level of morale and are motivated to receive new ideas and are always ready to venture new grounds. The behaviour of a leader is the inspiting force that begets healthy climate, high morale and motivation for the receptivity of new ideas for leading the organisation on higher and higher plane.

"The organisational climate Description Questionnaire covers two major parts of which one is Teacher's Behaviour and the other is principal's behaviour. Again each of the above dimensions are divided into four minor parts. Under Teachers' Behaviour, are

noted (1) Disengagement (2) Hindrance (3) Esprit
(4) Intimacy. Under Headmaster's/Principal's Behaviour
(1) Aloofness (2) Production Emphasis (3) Thrust and
(4) Consideration.

1.   DISENGAGEMENT :

This is a negative behaviour on the part of
school teachers. It indicates that the teachers do
ñot work together. It reflects a characteristic widely
found in teachers in India or elsewhere. It conceptua-
lises a behaviour on the part of a school staff which
denotes that teachers do not identify themselves with
everything that goes on in their schools, either in
curricular, co-curricular or even administrative areas.
They pull in different directions with respect to their
task, they gripe and dispute among themselves. Practi-
cally, no trace of integrity or cohsion is to be found
in the staff.

2.   HINDRANCE :

It denotes a feeling entertained by the
teachers that they are blocked in their day to-day work.
Mostly the 'blocking' originates from the leader.
Hindrance refers to the teachers' feeling that the
principal burdens them with routine duties construed
necessary busy-work. The teachers perceive that the
principal is hindering rather then facilitating their

work. Teachers are left with little time to relax or have recreation during their free periods.

3. ESPRIT :

The dimension of Esprit is positive as well as constructive. It refers to morale of teachers. The teachers feel that their social needs are satisfied, and that they are at the same time, enjoying a sense of accomplishment in their job. Esprit denotes positive emotional adjustment, self concept and a positive attitude on the part of teachers towards their work in the school. They work as a team, and take the strengths and weaknesses of their colleagues in a normal way without making much ado about it. They enjoy their stay in the school and are happy with their work.

4. INTIMACY :

It refers to the teachers' enjoyment of friendly scoial relations with each other. Teachers feel at ease in the company of others and the school becomes a family group. This dimension describes a social need satisfaction which is not necessarily associated with task accompalishment.

5. ALOOFNESS :

It denotes negative behaviour. It refers to behaviour by the principal which is characterised as

formal and impersonal. The school principal keeps away or maintains a respectful distance from his subordinates. He "goes by the book" and prefers to be guided by rules and policies rather than to deal with the teachers in an informal, face to face situation. His behaviour, in brief is unrealistic rather than particularistic; monothetic rather than ideosyncratic. He talks less. He neither lends his ears to others or opens out his mind. He prefers to be reserved and isolated. He feels it is below his status and rank to move freely with others and isolates himself to show his unique position. His voice, mannerisms, behaviour - all tend to manifest his inner feeling of superiority.

6.   PRODUCTION EMPHASIS :

This also is a leaders' behaviour and its focal points are negative. A principal who manifests this behaviour lays emphasis on production in an excessive measure. He seems to be both task oriented and result oriented. His communication tends to go in only one direction, and he is not sensitive to the feedback from the staff. He expects the teachers to spend all possible time in the school and work hard so that the school's output becomes outstanding. He carries a belief that a human mind works best under tension and pressure. He recognizes no friends. He does not bother with the conveniences and comforts of his

colleagues. He is least concerned with their psychological
and social needs and satisfaction. He recognises merits
in those who work hard the whole day which results in
maximum output. He would be happy if teachers did extra
coaching in the school so that school's results are out-
standing. He would commend hard working teachers and
may try to reward them in one way or the other. He
distributes his patronage to such working, obedient
teachers.

7.   THRUST :

It means that a school principal who is high
on this dimension is dynamic and moves his organisation
into action. The school hums with activities. The
principal himself is a hard worker. He sets an example
of hard and conscientious work. He does not ask
the teachers to give of themselves anything more than
he willingly gives of himself; his behaviour though
task oriented, is nonetheless looked upon favourably
by the teachers. The principal is the first to come
in the school and the last to go out. He motivates the
teacher. Everybody realises his or her responsi-
bility. Teachers feel free to talk to him and try
out new ideas and experiment. The environment has neither
stress nor thrust. Ethos is created automatically.

8.   CONSIDERATION :

It constitutes another positive behaviour
of a school principal. It refers to that behaviour by
the principal which is characterised by an inclination

to treat the teachers 'humanly' and to try to do a
little something extra for them in human terms. A leader
who is considerate is easily accessible to his colleagues
without any fuss or formality. He is patient, under-
standing sympathetic, helpful and accomodating in his
relationship with his colleagues, irrespective of rank
or status. He takes interest in their personal life.
He listens to their worries, tries to understand their
problems and does all that is possible to help them to
tide over their difficult times. In school work, he
endeavours to guide them, even if it means staying for
longer hours in school. He hardly scolds a defaulter. He
first tries to understand his difficulties and problems,
and if he finds that the default was caused by circum-
stances beyond the control of such a teacher, he gives
him his assured help and assistance so that the work left
unaccomplished could be done. He scrupulously remains
away from hurting the self-respect and the individuality
of his colleagues. Giving him a memo is the last thing
he would think of doing. On the contrary, he prefers
to be by his side as a comrade and helper.

The Organisational Climate Description
Questionnaire is the tool, prepared originally by Halpin
and it is being used by many researchers in Indian settings.
In Tamil Nadu, many verbal changes are made in this tool
to suit the administrative set up and local school
practices. The Organisational Climate Description

Questionnaire consists of 64 ideas or items. The
64 items is required to be filled up within 30 minutes
by the teachers. These 64 items are needed to be res-
ponded on a four point scale:

> (1) Rarely occurs;
>
> (2) Sometimes occurs;
>
> (3) Often occurs;
>
> and (4) Very frequently occur.

The responses by teachers should be from the
school organisational climate. The scale or cate-
gories mentioned above can be scored for each item by
simply assigning to the respective category any four
successive integers, i.e. 1, 2, 3, 4, or 5, 6, 7, 8.
The items to be scored negatively are to be scored as
4, 3, 2, 1. In order to calculate the raw score for
each person, the scores of items for each sub-test
have to be added and divided by the number of items in
the corresponding sub-test. This scoring is to be applied
to each sub-testwise and every statement is to be rated
on a four-point scale. The first four sub-tests or
dimensions refer to the behaviour of teachers in the
school. As mentioned above under teachers and Head-
masters' behaviour, there are eight dimensions or scales
or categories, compilation of all these eight dimensions
tables the type of the climate in the school. The
compilation gives six climates in the schools:

(1) Open   (2) Autonomous

(3) Controlled   (4) Familiar

(5) Paternal and   (6) Closed Climate.

In 1970, Owens prepared a table from which the above mentioned climate types can be briefly explained. The scores of all the teacher-respondents under each sub-test have to be added and to be averaged to construct the school profiles. These raw scores on the eight sub-tests of the Organisational Climate Description Questionnaire (O C D Q) are to be then converted into standardised scores. From this, we can get a profile of the climate of that particular school. For the standardisation procedures, a standard score system based upon a mean of 50 and a standard deviation of 10 is to be used. The profile of each school will then emerge.

Halpin and Croft (1966 April 1978) calculated prototypic profiles. The above mentioned schoolwise profile is now to be compared with the prototype profiles of Halpin and Croft. The similarity scores can be calculated by computing the absolute difference between each sub-test scores in the first prototypic profile and then in the second one and so on. Thus the score of each schools has to be compared with those of each of the six prototypic profiles. For every school, the sum of the absolute difference between the profile

scores has to be computed. A low sum indicates high
similarity between the two profiles, whereas a large
sum shows the dissimilarity between profiles. The
climate type for each individual school is decided on
the basis of the lowest difference score.

For ready reference, the prototypic profile
computed by Halpin (1966) is given here, for the six
Organisational Climates ranked in respect of openness to
closedness.

TABLE : 3:1:2

HALPIN'S PROTOTYPIC PROFILES

Climate	Dis-eng-age-ment	Hind-rance	Esp-rit	Inti-macy	Aloof-ness	Pro-duc-tion Emph-asis	Th-rust	Con-sider-ation
OPEN	43	43	63	50	42	43	61	55
AUTONO-MOUS	40	41	55	62	61	39	53	50
CONTRO-LLED	38	57	54	40	55	63	51	45
FAMILIAR	60	42	50	58	44	37	52	59
PATERNAL	65	46	45	46	38	55	51	55
CLOSED	52	53	38	54	55	54	51	44

SOURCE : Andrew, H.Halpin (1966) Page-174

From these eight identified independent dimensions of organisational climate, Halpin and Croft specified a set of climates. They identified six organisational climates which can be arranged along a continuum defined at one end by an open climate, and at the other by a closed climate. The six identified climates are termed as the 'open', 'Autonomous'; 'controlled', 'Familiar', 'Paternal', and the 'Closed'.

(a)   OPEN CLIMATE :

Open climate describes an energetic lively organisation which is moving toward its goals, and which provides satisfaction for the group members' social needs. Leadership acts emerge easily and appropriately from both the group and the leader. The members are pre-occupied disproportionately with neither task achievement nor social needs satisfaction; satisfaction on both, counts seems to be obtained easily and almost effortlessly. The main characteristic of this climate is the "authenticity" of the behaviour that occurs among all the members.

(b)   AUTONOMOUS CLIMATE :

Autonomous Climate is described as one in which leadership acts emerge primarily from the group. The leader exerts little control over the group members, high esprit results primarily from social needs satisfaction. Satisfaction from task achievement is also

presnt, but to a lesser degree.

(c)   CONTROLLED CLIMATE :

Controlled climate is characterized best
as impersonal, and highly task-oriented. The group's
behaviour is directed primarily toward task accomplish-
ment, while relatively little attention is given to
behaviour oriented to social need satisfaction. Esprit
is fairly high, but it reflects achievement at some expense
to social needs satisfaction. This climate lacks open-
ness, or 'Authenticity' of behaviour, because the group
is disproportionately pre-occupied with task achievement.

(d)   FAMILIAR CLIMATE :

Familiar climate is highly personal, but
under-controlled. The members of this organization
satisfy their social needs, but pay relatively little
attention to social control in respect to task accomp-
lishment. Accordingly, esprit is not extemely high
simply because the group members secure little satis-
faction from task achievement. Hence, much of the
behaviour within this climate can be construed as
'In-authentic'.

(e)   PATERNAL CLIMATE :

Paternal Climate is characterized best as
one in which the principal constrains the emergence of
leadership acts from the group and attempts to initiate

most of these acts himself. The leadership skills with-
in the group are not used to supplement the principal's
own ability to initiate leadership acts. Accordingly,
some leadership acts are not even attempted. In short,
little satisfaction is obtained in respect to either
achievement or social needs; hence, esprit among the
members is low.

(f)   CLOSED CLIMATE :

        Closed Climate is characterized by a high
degree of apathy on the part of all members of the orga-
nization. The organization is not 'moving', esprit is
low because the group members secure neither social needs
satisfaction nor the satisfaction that comes from task
achievement. The members' behaviour can be construed
as 'Inauthentic' indeed, the organisation seems to be
stagnant.

TABLE : 3:1:3

CHARACTERISTICS OF DIFFERENT TYPES OF ORGANISATIONAL CLIMATE

Characte-ristics	ORGANISATIONAL CLIMATE TYPES					
	Open	Autono-mous	Control-led	Fami-liar	Pater-nal	Closed
1. Disenga-gement	Low	Low	Low	High	High	High
2. Hindrance	Low	Low	High	Low	Low	High
3. Intimacy	Aver-age	High	Low	High	Low	Aver-age
4. Esprit	High	High	High	Average	Low	Low
5. Aloofness	Aver-age	Low	Aver-age	Low	Low	High
6. Thrust	Aver-age	Aver-age	High	Average	Aver-age	Low
7. Considera-tion	High	Aver-age	Low	High	High	Low
8. Production emphasis.	Low	Low	High	Low	High	High

Key : Disengagement : teachers' tendency to be not with it or not in gear with the task.

Hindrance : burdening of teachers by such routine duties which hinder their instructional work.

Esprit : Teachers' morale.

Aloofness : Formal and impersonal behaviour of the principal who is guided by more 'rules' and 'policies' of the schools.

Thrust : Closed supervision by principal in order to get the school going faster.

Consideration : Principal's inclination to treat teacher 'humanly'.

Production Emphasis : Principal's class supervision of teacher his one way communication: Streams on output of work by teachers.

THURSTONE TEMPERAMENT

TOOL VI :

Most tests describe the personality traits of a person in terms of psychotic or neurotic tendencies. However, these climate steriotype tests are not good at

describing personality traits, since for all practical
purposes most of us are reasonably well adjusted. We
need a good schedule which describes how normal well adjusted
people differ from each other. For this purpose the
Thurstone Temperament Schedule was used. It is, however,
limited to a practical description of only the important
aspects of temperament and makes no attempt to appraise
the degree of conflict, insecurity or maladjustment in
temperament. It is designed to assess those traits which
are relatively permanent for each person and encloses
those which reflect recent social experience and social
identification.

DESCRIPTION OF THE AREAS COVERED BY THE SCHEDULE :

The temperament described as active, vigorous,
impulsive, dominant, stable, social and reflective
traits are the seven areas described here. These seven
temperaments which cover 140 items are printed in a six
page step down booklet. The direction for taking the
test are printed on the first page of the schedule.
The administrator read the directions to the teachers.
This is sometimes helpful in group situations. No
comments are to be made about the items in the schedule
before or after the test has started. There is no time
limit. Sufficient time must be given to complete all
items. Three alternative responses namely "YES" "?" and

"NO" are provided against each of the item of the schedule. The subject is asked to give his response by placing a tick mark against any one of the three alternatives which reveals his answer best. Scoring of the items can be done by hand as well as by machine. Only correct responses are recorded. Each correct responses is given a score of one. A total score for each trait is obtained.

DESCRIPTION OF INDEPENDENT VARIABLES-PERSONALITY TRAITS :

TRAITS :

A trait is the inherited tendency of an individual to react as he has reacted more or less sucessfully in the past in similar situations when similarly motivated. Psychology endeavours to explain recurrent responses and consistencies in behaviour. In terms of their definition, a trait is a function of heredity, having similar situation and similar motivation.

ACTIVE TRAIT :

A person scoring high in this area usually works rapidly and he is very mobile. He likes to be always "on the go" and tends to be always in a hurry. He usually speaks, walks, writes and drives rapidly even when these activities do not demand speed.

VIGOROUS TRAIT :

A person with high score in this area participates in physical sports. The use of tools and

out-door occupations are prepared by him. This area

emphasises, physical activity using a great deal of

muscular activity and great expenditure of

energy. This trait is often described as masculine,

but many women and girls score high in this area.

IMPULSIVE TRAIT :

High score in this category indicates a

'happy-go-lucky' dare-devil, carefree and acting on the

spur of the moment disposition. A person who is dogged

by "a hangers on" when acting or thinking is typically

low in this area.

DOMINANT TRAIT :

People who score high on this factor look

upon themselves as leaders capable of taking initiative

and responsibility. Inspite of their leadership ability

they are dominating. They enjoy public speaking, orga-

nising social activities, promoting new projects and per-

suading others. In short this type of persons are

probable to take charge of the situation in case of

accidents.

STABLE TRAIT :

People scoring high on this factor are cheefful.

Noisy situation, crisis and distractions do not affect their

attention while engaged in study. Even if they are

interrupted when concentrating on a particular topic, they

are not irritated. Leaving a task unfinished does not
annoy them.

SOCIABLE TRAIT :

People scoring high in this area enjoy the
company of others, makes friends easily, sympathetic,
co-operative and agreeable in their relations with other
people. Strangers feel like telling them about their
personal problems.

REFLECTIVE TRAIT :

People scoring high in this area are media-
tive, and they are characterised by reflective thinking.
They enjoy dealing with theoretical rather than with
practical problems. These people are usually quiet,
work alone and enjoy work that requires accuracy and fine
details. They would rather plan a job than carry it out.

ATTITUDE :

The term has been defined variously by different
scientists. Baldwin (1962) defines attitude as readiness
for attention or action. Remmers and Associates (1964)
define it as a feeling for or against something. According to
Thurstone (1953) an attitude is a degree of positive or nega-
tive affect associated with some psychological object.
By psychological object he means any issue under study such
as school, church, educational system etc.

RELIABILITES :

The reliabilities for the seven areas of
the schedule have been computed by split-half method for
the groups (men, women). The odd even correlations were
computed and then reliabilities were estimated by the
spearman-Brown correction for double length. Reliabili-
ties were also women seeking counselling and employment
through the University of Chicago.

3.25   UNDERLYING BASIC ASSUMPTIONS AND HYPOTHESIS :

The present study makes an attempt to locate
the dissonance state among the secondary school teachers
with their personal variables and institutional variables.
The study also makes an attempt to locate the innovative
proneness of the teachers with the above variables. This
investigation is basically a descriptive survey conducted
on the basis of known procedures and techniques. The
persons working in the institution have to change first
to bring the institution on the path of change. The
persons, who are subjected to change, are influenced by
personal as well as social system variables. System values
and norms exert a significant influence on the attitudes
of the individual innovator.

New events may happen or new information may
become known to a person creating at least a momentary

dissonance with existing knowledge, opinion or cognition concerning behaviour. Since a person does not have complete and perfect control over the information that reaches him and over events that can happen in his environment such dissonance may easily arise. Even in the absence of new, unforeseen events or information, the existence of dissonance is undoubtedly an every day condition.

Based on the above basic assumptions, the following null hypotheses are framed to gear the organisation and interpretation of the data collected and analysed.

(1) Age, sex and teaching experience are not positively and significantly related to the dissonant state of the teachers.

(2) Professional reading habits, mobility of teachers and job satisfaction are not positively and significantly related to the dissonant state of the Teachers.

(3) Professional teacher training and Inservice education are not positively related to the dissonant state of the teachers.

(4) The temperament of teachers has nothing to do with the dissonant state of the teachers.

(5) The organisational climate and the
leadership behaviour of the principal are not positively
and significantly related to the dissonant state of
the teachers.

(6) Age, sex and teaching experience are not
significantly related to innovative proneness.

(7) In-service education, reading habits and
job satisfaction are not significantly related to
innovative proneness.

(8) Mobility of teachers and temperament of
teachers are not positively related to innovative
proneness.

(9) The Organisational Climate of the school
and the leadership behaviour are not significantly
related to innovative proneness.

3.25   ADMINISTRATION OF THE TOOL :

In order to get reliable data in time at
each stage the tool was administered by the investigator.
The collection of data was facilitated by advanced initi-
mation given to the schools concerned. Wherever possible
the natural situation was used to administer the test.
Finally data pertaining to 540 teachers were collected
from 100 schools in the city of Madras.

The tools were classified under six sections. First three sections consists of

1)   The Inventory of Attitudes to Innovation

2)   Situational and Innovation characteristics

3)   Change Related Values.

For these three sections the teachers were requested to express their attitude towards their adoption in a six point scale ranging from strongly agree, Agree, Tend to agree, Tend to Disagree, disagree and these six point scale is scored 5,4,3,2,1,0 respectively. Inversely keyed items were scored 0,1,2,3,4,5. Item scores from each respondent were summed upto provide a global score ranging from 0 to 150 in section one and from 0 to 300 in section II and III respectively.

The fourth tool comprises of leadership Behaviour, Description, questionnaire (L.B.D.Q.). In this section the teachers expressed their attitude towards the adoption in a five point scale, ranging from always occurs, often occurs, and never occurs, and this five point scale was scored 4,3,2,1,0 respectively. Inversely keyed items scored 0,1,2,3,4. In this section I, items scores for each respondent were summed up to provide a global score ranging from 0 to 120.

The fifth tool is organisational climate Description, Questionnaire (OCDQ). The Fifth section contains 64 items and within 30 minutes the teachers or principals were requested to complete it. This 64 type items were to be responded on a four point scale. The pattern of responses is as follow: Rarely occurs, sometime occurs, often occurs, very frequently occurs. The OCDQ is composed of eight sub-tests. The first four of those dimensions dealt with the teachers behaviour$ and the last four dealt with the principals behaviour. As mentioned above it was to be responded in a four point scale and were scored 1,2,3,4, respectively. Inversely keyed items were scored 4,3,2,1. In this section item$ scores were summed upto provide a global score ranging from 0 to 256.

The sixth tool is Thurstone TEMPERAMENT SCHEDULE. In this section the teachers expressed their attitude towards the three point scale. Three alternate responses namely "Yes", "?", and "No" were provided against each of the items of the schedule. The teachers or principals were asked to give their responses by placing a tick mark against any one of the three alternatives which revealed their answers best. In this section Item scores for each respondent were summed up to provide a global score ranging from 0 to 140.

3.27   THE SAMPLE FOR THE STUDY :

The sample chosen for this study is a random sample and comprises 100 Secondary Schools in the city of Madras. Nearly 50% of them are innovative and other schools are non-innovative. The map of the city of Madras state showing the location of the schools is given in the Table No.3:0:1. The list of the schools selected for the study is given in the Appendix II. Schools governed by various types of administrative bodies such as Private, Missionary, Corporation, and Governemnt are included in this study. Single sex and mixed schools, residential and non-residential schools all these types are represented in this investigation. The headmaster and 5 to 10 teachers in a school were contacted for collection of data. These are the people who are directly related to the system. The Chief Educational Officer of the city of Madras and the District Educational Officers, gave useful information about the types of schools and the Innovativeness of the school.

The trained graduate teachers with the teaching experience of both the groups - 5 and below 5 years, 5 and above 5 years are also taken into account. The investigor visited all the schools in person to collect the data.

As shown earlier the total number of Secondary Schools in the city of Madras is 329. The investigator has

Selected 100 schools share 33% of the total Secondary
schools in the district. These schools are selected
on the basis of randomly stratified sampling catering to
random distribution of the school such as sex, management,
and innovativeness of the school.

It will be seen that there are only 9 government
schools in the city of Madras and all are included in the
sample. Majority of the schools are private schools.
From the total private schools 30% of schools are included
in the sample. Most of the schools in the city are
co-educations and only a very few schools are meant for
girls. The chief education officer of the city of Madras
and the District Education Officers gave the above
statistics. They classified the sampled schools into
Innovative and Non-innovative schools.

The investigation is based on the responses of
540 secondary school teachers and 100 Head Masters in
the city of Madras. Thus it will be seen that the
sample selected for the study is fairly representative
of the total population or universe of secondary schools
in the city of Madras.

3.28   THE SCHEME OF ANALYSIS AND INTERPRETATION
        OF THE DATA :

For the analysis of the Data collected the
following statistical technique was employed.

1)   Univariate Frequency distribution of all the
58 variables coded as well as continuous. The variables
were as follows:

1 (a)   PERSONAL VARIABLES, TEACHERWISE :

        Age, sex, teaching experience, professional
Training, Academic Qualification, Mobility, Inservice
Education, Professional reading habits and job satisfaction.

(b)   INSTITUTIONAL VARIABLES SCHOOLWISE :

        Types of school climate, leadership behaviour,
Temperament of Principal, temperament of teachers and
Innovativeness.

(c)   DIMENSIONAL VARIABLES :

        Individualization, Curriculum Organization,
teaching learning process, Teaching resources, Internal
relationship, Administrative support, Staff Norms, Comp-
lexity Riskness, Localitness, Cosmopoliteness, Traditiona-
lism, Progressivism, Dogmatism, Venture-someness, Considera-
tion, Disengagement, Hindrance, Intimacy, Aloofness,
Production Emphasis, Thrust, Consideration, Vigorous Trait,
Impulsive-trait, Dominant Trait, Stable trait, Social
Trait and Reflective Trait.

2)   Inter correlation matrix and mean and standard
deviation of all 42 variables mentioned in I.C. in relation
to the personal and institutional variables mentioned
above I(a) and I (b).

3)   t-Test significance of difference between the
means of 42 variables mentioned above in I (c) while
grouping is done on the basis of the personal variables
mentioned above in I(a) and in I(b).

The data was analysed in the physical research
laboratory at Ahmedabad.

3.29   THE SCHEME OF CHAPTERIZATION

The scheme of chapterization is as follows:

CHAPTER : I   THE PROBLEM THEORITICAL FRAMEWORK.

CHAPTER : II   REVIEW OF THE RELATED LITERATURE AND
                RESEARCHES.

CHAPTER : III PLAN AND PROCEDURE OF THE STUDY
                (METHODOLOGY).

CHAPTER : IV   ANALYSIS AND INTERPRETATION OF THE DATA.

CHAPTER : V   SUMMARY OF THE RESULTS AND SUGGESTIONS
                FOR FURTHER STUDY.

3.30   CONCLUSION :

In this Chapter the details of procedure,
instrumentation, hypothesis and scoring are explained.
Taking guidance from the findings of earlier reasearches in
the area of innovation, the factors to be studied with
regard to the location of innovation dissonance state of
secondary school teachers were decided. After deciding
upon the variables that affect the innovation dissonance state,

the tool for the investigation was decided with the
consultation of the judges. The variable selected
for the study, the tool selected for the study, the
hypothesis and the objectives have been reported in
this chapter. The investigator has used a large
variety of tools and techniques to collect data on
as many factors as possible.

The method of using the tool for data
collection, and procedure of scoring have been
explained in this Chapter. The next chapter deals
with the analysis and interpretation of data.

CHAPTER : III

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Recent pedagogical experiments suggest that, before this is done, it is as well to motivate him by doing the opposite, that is presenting the new material in such a way that it challenges the child's existing beliefs and expectations and makes him sensible of the gaps and inadequacies in his present knowledge structures. The contrast between the very atmosphere of a class room in which this is done and that of the more traditional class room, in which information is meekly imbibed, lends further credibility to the postulated drive-inducing power of conceptual conflict.

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