CHAPTER - III :

THE RESEARCH PLAN

3.1 INTRODUCTION

The previous chapter ended on a note that there is
a need to develop a research tool to describe and evaluate
organizational climate of schools suited to Indian condi-
tions, to map out the domain of organizational climate in
the light of the accumulated research experience and to
examine some correlates of climate hitherto not explored
by Indian researchers. This chapter presents the research
design - the plan and procedures in this perspective. The
discussion will be organized primarily around the following
focal points :

(a) The problem and its elucidation
(b) The rationale of the study
(c) The scope and limitation of the study
(d) Assumptions
(e) The objectives of the study
(f) The nature of data and their collection
(g) The research instruments and their scoring schemes
(h) The sample
(i) The hypotheses
(j) The procedures of analysis and interpretations.

THE PROBLEM AND ITS ELUCIDATION

It may be pointed out at the outset that the study
belongs to the category of perception study, and is focused

on discovering possible relationship between dependent and independent variables using correlation statistical technique.

(a)   <u>Study</u> :   The term denotes a critical inquiry, analysis and interpretation as presented in this chapter later in the section dealing with research methodology.

<u>School Climate</u> :   This concept was defined and described at length in Chapter I. In this study it refers to the character of the school which results from the operational interaction of organizational behaviour of role participants at the various hierarchical level of the organization.

In the present study, the term is used in the same sense as in which Halpin and Croft used the term 'Organizational Climate of Schools'. It is viewed as the product of the interaction among three basic components - (a) the formal organization and its role-structure, (b) the individual and his personality disposition, and (c) the informal group and its norms and culture of a social organization.

(b)   <u>Personality of School Personnel</u> :   The term denotes the personality structure of teachers who teach pupils in the secondary schools from standards VIII to XI*.

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* When the data for the study were collected, the reform of 10+2 at school stage was merely talked of and the secondary schools covered classes VIII to XI.

The term 'personality' is used in the sense suggested by Cattell (1950); i.e. personality is that which permits a prediction of what a person will do in a given situation. Personality is concerned with all the behaviour of the individual, both overt and under the skin. Cattell (1950) views personality as a complex and differentiated structure of traits, with its motivation largely dependent upon a subset of these, the so called dynamic traits.

(c) <u>School Personnel</u> : It is used in the study to mean school teachers whose primary job is to educate or to provide instruction to the students' study in secondary schools.

(d) <u>Pupil Control Ideology</u> : Its conceptual framework has already been discussed in Chapter I.

Pupil Control is a form of social control, the process by which social order is established and maintained. It implies requirements for behaviour and restraints upon behaviour, and it is an essential ingredient of group life.

Ideology means any set of (e.g. political, religious, or philosophical) beliefs acquired and held uncritically to the exclusion of new (or contradictory) ideas.

The term 'pupil control ideology' refers to a way of

thinking about controlling pupils by the teachers. As has been clarified earlier 'pupil control ideology' is being conceptualized along a continuum ranging from 'custodialism' at one extreme to 'humanism' at the other.

Some other terms which do not form the part of the statement of the problems but would be used in the study need also to be explained.

Coveted Schools :   Secondary schools which are eagerly sought for by the public to get their children admitted, because they have earned a name for their high results at the S.S.C. Examination or because their discipline is strict, or because they are well staffed, equipped and the quality of instruction including the richness of co-curricular and extra-curricular activities provided by them belong to this category. In most cases they are high fee charging schools. Their medium of instruction and examination may be entirely English, or English and the regional language or only the regional language. Their management may be of Christian Missions or Industrial Trusts or Registered Societies. They have largely an air of sophistication or snobishness. They are largely to be found in big cities.

<u>Medium Quality Schools</u> : They are notneither of very good
qualitynor of poor quality. Middle class parents who cannot
afford to pay high fees charged by Coveted Schools, but
at the same time desire that their children receive good,
if not the best, instruction, endeavour to get their children
admitted in this category of schools. Their managements
consists of mostly Registered Trusts and Societies. These
schools are of medium quality in building, equipment,
staff, instructional materials and aids and though their
discipline may not be as much rigorous as in the case of the
coveted schools,yet it is, fairly good enough to facilitate
goal achievement for the institution as well as children.

so so
<u>Just-The-Schools</u> : They are below the average quality
schools. Their managements may be straight-forward or
cunning and corrupt. Manoeuvring is the favourite strategy
of the Management. They may be city, town or rural schools.
They are run not primarily with educational service motive.
Commercial motive may be propelling the management to keep the
school going. They exist because there are children in the
neighbouring habitations who cannot pay high fees or who
cannot get admission in Middle-Quality schools, but at the
same time they are desired by their parents to be educated.
They subsist largely on government grants and to some extent

on forced or voluntary donations. Their discipline may be good or indifferent. The same can be observed about the quality of instruction. This corresponds to the 'black sheep' school described by Desai (1965) and to the C Type school described in his study by Patel (1976).

3.2 THE RATIONALE OF THE STUDY

In the course of last eight years, i.e. between 1968 and 1976, a score of studies have been reported on organizational climate of schools. These studies were mostly, if not wholely, based on Halpin and Croft's ideology, instrument and procedures for mapping the domain and typology of climate. Studies by Mehra (196%) and Sharma (1973) have raised doubts whether Halpin-Croft's tool and techniques are really appropriate to Indian situation. Further in a traditional society like the Indian where bureaucracy still does or inspires major decision-making, the administrative behaviour dimensions are no less important than the dimensions of teachers and the principal's behaviour. There is, therefore, need to stretch the Halpin-Croft ideology of climate further to include administrative behaviour ideology. In Halpin-Croft climate type studies, the identification of climate typology was done on the basis of the prototype

profiles (vide, Halpin, 1966:174) which was evolved on the basis of data yielded by the sampled 71 elementary schools. Most of the Indian studies have taken for granted that the profiles yielded by these schools denoting a high loading on only one profile-factor are also valid for identifying the six organizational climates of Indian schools.

Such naive approach raises some doubts about the appropriateness of the methodology used in Indian climate studies. Halpin-Croft's prototypic profiles may or may not hold true in Indian conditions for data collected from Indian secondary schools. Therefore, the researcher was posed with two alternatives, either to factor analyse his own items and develop prototypic profiles on Halpin-Croft model or explore some other simpler but rational method of identifying the climate types. It is such thinking that made the present researcher explore new ways of describing and evaluating school climate. He has preferred the term 'school climate' to Halpin-Croft's term of 'Organizational Climate of Schools' because it is more specific to school climate whereas the term 'organizational climate' can be applied to any organization - business, industry, public administration, etc.

Further, the conclusions of various researches reviewd
in Chapter II are demonstrative of the fact that the assump-
tion put forward by Halpin and Croft (1963) that the open
climate, by definition, is more desirable than the closed
climate is accepted by all. It is, therefore, better for the
planners as well as administrators of the Education Depart-
ment and the members of Secondary Education Boards of
various States to know the individual schools by the type of
climate prevailing therein.

This investigation is made to discern if there are any
relationships between the organizational climate of schools
and selected personal variables of the school teachers. The
assumption is made that there does exist something which
influences the building of the school climate. It is further
assumed, therefore, that this climate can be 'created' or
'maintained'. The problem then becomes one of identifying
and defining the conditions necessary for its creation and
maintenance.

If the relationship between certain 16 P.F. question-
naire scores and certain OCDQ sub-test scores which indicate
that teachers with a particular pattern of persomality
traits will perceive the dimensions of school climate in a

unique way can be isolated, then the insightful administrators of the school system and vigilant, democratic minded and interested principals of individual schools can employ objective criteria in making decisions regarding recruiting and placing teachers.

If it can be inferred from the data presented that authenticity and openness in organizational behaviour are highly compatible with a humanistic pupil control orientation, then the intervening variable - the pupil control ideology of a school may provide another step in identifying and changing the climate of the school.

In short, the present study will help school authorities to become more aware of the group processes - those forces unique to group which ultimately may result in its success or failure. They will become aware of those personal and situational pressures which simmer underneath a surface of good manners and friendly interchange. Furthermore, various strategies can be suggested for changing the climate of school, in that case the present investigation will help in envisaging measures to be taken by the State Department of Education to improve school quality which is the crying need of the day.

3.3 THE SCOPE AND LIMITATIONS OF THE STUDY·

The scope of the study is extended to secondary
schools in Gujarat State under different managements,
situated in different environments, having different status
of resources and having different sizes. The picture of the
school climate is sought to be built up from the interaction
patterns of teachers. The same was done by Halpin and Croft
also (1966). The pupils, too, play a part in building up
climate. But they are not included in the category of
respondents because that would have enlarged the scope of
the study, besides making the task stupendous. A further
exploration of research could, however, be taken up using
perceptions of school pupils. The respondents are secondary
school teachers working as regular staff members in these
schools. They would include male as well as female teachers
comming from various socio-economic groups (the SES). The staff
would naturally have varying experiences and varying educa-
tional background. The picture of school climate, persona-
lity factors of teachers, their pupil control ideology and
dogmatism level would be built up from the treatment of the
responses of teachers on the tools which would be deployed by
the investigator.

A number of factors influence the climate of an organization. In the case of a school which is a social organization, external social elements as well as cultural and economic factors influence the institutional atmosphere and teacher and principal behaviours. It becomes a formidable task to include all these factors in a single study. It would necessitate a long term research project. Unlike the Indian studies on organizational climate of schools done between 1968 and 1976, the present study not only draws its data from the perceptions of the high school teachers, /it seeks
but
to explore whether the personality factors of the teachers has any thing to do as to how they perceive their school
also
climate. It is conceived that this attempt to relate personality variables to teachers' perception of their own schools' climate enriches the present study.

The scope of the study also includes pupil control ideology and dogmatism. The professional and popular literature pictures the school as an institution in which pupil control is a key concern. It was mentioned previously that
a
the school is/service organization in which clients are unselected and participation is mandatory, it seems reasonable to assume that pupil control orientation is an important

factor in intra-faculty relations that will bear a relation
to the climate of the school. In the words of Willower and
Jones (1963), "while many other matters influenced the tone
of the school, pupil control was a dominant motif."

These considerations raise the question whether the
extent of openness of a school climate can be predicted from
the knowledge of the personality factors of teaching personnel
whether there is any relationship between school climate and
pupil control ideology of teaching personnel. It is in such
perspective that the design of the present study is attempted.

As observed earlier, the study makes use of the eight
dimensions (four teachers' and four principals') as dis-
covered by Halpin and Croft in their study. The investigator
has done factor analysis but not to identify, as Halpin
and Croft did, the dimensions or sub-tests. He added, as
also mentioned earlier, four more dimensions on empirical
bases, through discussion with a number of principals,
research workers on climate and academician educational
administrators. He has worked out internal consistency of
each item with the dimension or sub-test to which it is
assigned, and not factor analysed the items to discover
dimensions or factors. This has not been done because the

primary function of the present research is not to develop
and standardize an Indian OCDQ. Its main interest lies,
in fact, in identifying, describing and evaluating school
climate expanding the area of its perspectives (corelates).
For such a goal, the factor analysing of the items is not
made to discover factors or dimensions. The latter are selec-
ted on the basis of previous research and exploratory per-
ceptions of field workers as well as consumers - the
principals. This constitutes the limitation of the study.
The factor analysis of the items is, however, done but with
a different purpose, viz., to extract factor loadings
(out of all the factors or dimensions used in the study
incorporated in correlation matrix) leading to the rotated
varimax factor matrix.

In identifying climate, the present study deviates from
the methodology used by Halpin and Croft. It has adopted
the double standardization - normative and ipsative - but
then develops its own procedures to identify climates, not
six types as are done by Halpin and Croft, but three types
viz., Open, Intermediate and Closed, on a climate continuum,
with Openness on one hand, closedness on the other and the
medium position climate being termed as Intermediate.

Sargent (1967) also uses this three categories of organi-
zational climate.

The study has also another limitation - it does not
make use of principals' perceptions about the behaviours of
their colleagues and their own.

It is assumed that the behaviours of teachers, principals
and administration are governed by three general factors,
viz., Social Needs - Satisfaction, Esprit, Organizational
Control (which include concern for task-accomplishment).

In brief, the scope of the present study is larger
than that of Halpin-Crofts' and other climate studies in-
asmuch as it includes four additional administrative dimen-
sions. Its most prominent limitation is that the twelve
dimensions or sub-tests that make the new Indian OCDQ are
not the result of factor analysis but are based on the
previous research and empirical explorations. Factor loadings
are, however, extracted using multivariate approach of
analysis of the components of all the four tools used in the
study.

3.4 ASSUMPTIONS

The present study is based on certain assumptions.
Firstly, like individuals schools have their own characte-
ristic personality and marked variations are found in respect
of their personality - climate among schools. Secondly, it
is assumed that school climate is the resultant cumulative
effect of the subtle complex web of the interactions going
on in formal and informal situations within schools in three
domains of teachers behaviour with one another, of principals
with teachers and of administrative impact on teachers'
behaviours. Thirdly, it is assumed that not only school
climate can be identified and classified broadly into three
types on a climate continuum, but behaviours of teachers,
principals and administrators within each climate type can be
described and evaluated. Fourthly, personal variables of
teachers (respondents) who perceive climate of their schools
influence their perceptions about school climate. Fifthly,
over and above personality factors of the respondents who
perceive their colleagues', principal's and administrator's
behaviour, there are other factors (in the present study,
pupil control ideology and dogmatism or belief systems)
which bear relationship with climate types. Sixthly, climate

typology can be identified by using procedures which deviate to more or small extent from the one used by Halpin and Croft (1963). Seventhly, it is assumed that the Intermediate type of school climate occupies somewhat a middle position on climate continuum where different climate dimensions are neither positively nor negatively but moderately prominent operationally. Lastly, following Halpin (1966:207) school climate carries index of authenticity.

3.5 OBJECTIVES OF THE STUDY

In the light of what is stated earlier,. the primary concern of the present study is to map out the organizational climate of secondary schools of Gujarat and to view climate in perspective of the personality traits of school teachers who perceive the climate and also relate climate to their(teachers') pupil control ideology and dogmatism orientation. This would make it necessary to select or construct tools to measure climate, personality traits, teachers' pupil control ideology and their dogmatism or belief system. These would constitute the general purposes of the study.

The specific objectives would be as follows :

(1) To classify the secondary schools of Gujarat on a climate continuum, with Open Climate at one extreme, Closed climate at the other extreme and the Intermediate Climate which falls between the two extremes.

(2) To study the factors that contribute most to the creation of the two extreme climate types, viz., the Open Climate and the Closed Climate and also examine to what extent some biographical variables of teachers and some physical variables pertaining to school influence school climate.

(3) To find out whether teachers with certain type of personality patterns tend to view one or more dimensions of school climate in a manner indicative of an Open Climate or a Closed Climate.

(4) To inquire whether there is any significant difference between teachers' and principals' perceptions of Open and Closed Climates.

(5) To examine the possible relationship between teachers' perception of organizational climate of schools and their pupil control ideology.

(6)   To determine the extent to which the belief-systems (dogmatism) of teachers in Open Climate Schools differ from these of the teachers of the Closed Climate schools.

(7)   To investigate relationship between certain biographical characteristics of teachers and their pupil control ideology and belief systems.

The plan as well as the procedures of the study will be based on the above purposes and objectives.

3.6   THE NATURE OF THE DATA AND THEIR COLLECTION

Three types of data would be essential for this study. The first type would, be some basic data regarding schools about their location, size, staff, equipment, discipline, indices of school quality, co-curricular and extra-curricular programmes, fees charged by them, the nature of their management and such other data that would help to judge whether they are the coveted or medium quality or just - so so schools, will be collected.

The second type of data would include some major biographical data about the teachers such as their age, sex, socio-economic status, qualifications, professional experience etc.

The third type of data would constitute the core
data of the study. These data would be collected through
the administration of four tools, viz., (1) The Organiza-
tional Climate Description Questionnaire - The OCDQ (the
Baroda Version), (2) the 16 P.F. Questionnaire developed by
Catell, (3) the Pupil Control Ideology Form developed by
Willower, Eidell and Hoy and (4) the Dogmatism Scale
developed by Rokeach.

The data collection will be through the administra-
tion of these four tools. In many cases, the tools will be
administered by the investigator himself visiting schools
and meeting principals and sampled teachers himself. In
some cases, the data will be collected through friends'
in sister colleges of education in the State and teachers
of their on-campus and off-campus schools.

3.7 THE RESEARCH INSTRUMENTS AND THEIR SCORING SCHEMES

As stated in the previous section, four research
instruments will be employed in the present study. Of these,
the Organizational Climate Description Questionnaire (the
OCDQ - Baroda version) and the Pupil Control Ideology Form
(the PCI - Baroda version) are developed by the investigator

himself on the basis of the conceptual frame drawn largely
from Halpin-Croft's QCDQ in the case of the OCDQ - Baroda
version and the PCI - Baroda version drawn from the PCI
Form of Willower and others. The other tools - the 16 P.F.
Questionnaire and the Dogmatism Scale were developed in the
U.S.A., the former by Catell (1956) and the latter by
Rokeach(1960). Each of these research instruments is
described below with requisite details.

(1) The OCDQ - Baroda Version

The previous studies done on organizational climate
in India such as those by Mehra (1967), Sharma (1969, 1971a,
1971b, 1971c, 1972, 1973), Sharma and Santhanam (1972),
Sharma, Rai and Buch (1973), Byati (1970), Patel (1973),
Pillai (1973), Shelat (1975), Shah (1975), Pandya (1975),
Franklin (1975), Darji (1975), Choksi (1976), Tikmani
(1976) and Gupta (1976) had all used the OCDQ developed by
Halpin and Croft in 1963. In the two seminars on organiza-
tional climate of high schools sponsored by the Department
of Extension Services at Baroda (1974) and Udwada (1975),
the participating school principals and senior teachers
had reacted that organizational climate dimensions of
Halpin and Croft are inadequate in Indian situations to

map out genuinely the organizational climate of schools.
A study done on administrative climate of high schools by
Patel (1975) at the Sardar Patel University, Gujarat State
had also underscored the need to develop an OCDQ tool more
appropriate to educational scene in Indian schools and more
harmonious with its cultural orientations. The research
seminars in the Department of Educational Administration
of the M.S. University of Baroda in October through
December 1974 had also earlier underpinned the need to
construct tools to measure organizational climate of
schools and colleges thinking afresh on the components of
climate and preparing tool items that are natural to condi-
tions of schools in India. With such background developments
the investigator preferred to construct an altogether new
tool to measure organizational climate which constitutes
a major focus in the present study.

To collect the necessary data to facilitate the
identification of the organizational climate of the sampled
schools, it is necessary to have appropriate tool. One
alternative before the researcher was to use the OCDQ by
Halpin and Croft for climate. But the present researcher

felt it better to construct a new tool - considering the cultural and organizational pattern prevalent in India and moreover in the words of Halpin (1966) the continuum devised by Halpin and Croft (1963) for arranging organizational climates does not possess porcelain perfection; it has a few chips and nicks along the edges.This he corrected by taking the following steps :

(a) Before constructing the OCDQ for use in the present study, the researcher examined the literature of educational research pertaining to institutional atmosphere and held conferences with Professor D.M. Desai, Professor Dongre, Dr. (Mrs.) N.A. Shelat, and Dr. (Mrs.) Dekhtawala who have done research studies in the areas of organizational climate or teacher morale. As the focus was more on organizational climate, these series of discussion yielded four additional dimensions for the identification of climate, viz., (1) Non-graded order, (2) Feedback, (3) Human Relations, and (4) Autonomy.

(b) The second step was the construction of the items for each of the twelve dimensions - (1) Disengagement (2) Hindrance (3) Esprit, (4) Intimacy (5) Aloofness (6) Produc-

tion Emphasis (7) Thrust (8) Consideration (9) Non-graded order (10) Feedback (11) Human Relations and (12) Autonomy.

(c.) The third step was the discussion of each item threadbare at a work conference in which Professor D.M. Desai, Professor D.B.Desai, the present researcher, Dr. P.K. Dongre, Dr. K.V. Sheth, Dr. D.R. Darji, Dr. D.G. Pandya, Dr. (Mrs.) Neela Shelat, Dr. (Mrs.) Dekhtawala, Principal (Miss.) Anjani Mehta (Dabhoi), Mrs.Seema Sahastrabuddhe (Porbunder), and Dr. Samrong Pengnu participated. The last three were also doctoral students in the Department of Educational Administration whose doctoral on-going studies have one of the concerns in the area of organizational climate but at different stages of education.

(d) Preparation of the experimental draft form of the tool on organizational climate.

Table 3.1 given on the next page, shows the number of items included in the experimental draft of the tool.

Table 3.1 : Number of Items in Each Dimension of the OCDQ
(Baroda Version)

Dimensions	No.of items
Teachers' Behaviour	
Disengagement	17
Hindrance	14
Esprit	17
Intimacy	14
	62
Principal's Behaviour	
Aloofness	18
Production Emphasis	20
Thrust	13
Consideration	15
	66
Administrative Behaviour	
Non-graded order	18
Feed back	15
Human Relations	20
Autonomy	19
	72
	200

(e) After finalising the Experimental Draft of the OCDQ (Baroda version), the researcher selected 250 secondary school teachers from 25 schools from the districts of Bharuch, Vadodara and Kheda of South and Central Gujarat for the try-out administration of the tool. For the convenience of the participating teachers, the Experimental Draft of the tool was printed both in Gujarati language and in English language in separate booklets.

(f) The final choice of items in the OCDQ was based on the internal consistency item analysis technique. In the tool, items that showed correlations 0.43 or above were retained for the assemblage of the final draft of the tool. The following table shows the range of Pearson Moment Coefficient of Correlation yielded by the analysis between the dimension total score and individual item score in the try-out of the tool. The Table 3.2 given on the next page shows this range of 'r's.

Table 3.2 : <u>Range of Pearsón Product-Moment Coefficient of
Correlation between Dimension Total Score and Individual
Items selected for the Final Form of the OCDQ (Baroda Version)</u>

Dimension	Range of r between the Dimension Total Score and Individual Items included in the Dimension
1. Disengagement	0.51 to 0.69
2. Hindrance	0.47 to 0.55
3. Esprit	0.46 to 0.62
4. Intimacy	0.46 to 0.63
5. Aloofness	0.43 to 0.68
6. Production Emphasis	0.45 to 0.55
7. Thrust	0.55 to 0.78
8. Consideration	0.49 to 0.77
9. Non-graded order	0.44 to 0.55
10. -Feedback	0.53 to 0.62
11. Human Relations	0.51 to 0.70
12. Autonomy	0.52 to 0.70

The <u>reliability coefficient</u> was calculated using the Test-Retest Method. It was found to be 0.92. The coefficient is large enough to establish the reliability of the tool.

The final form of the tool consisted of 115 items. The dimension-wise distribution of these items is given in Table 4.3.

Table 3.3 : Distribution of Items of the OCDQ -.
Dimension-wise

Dimensions	Item Nos.	Total Items
Teachers' Behaviour		
1. Disengagement	16,33,55,64,75,76,78,80,86, 94,105	11
2. Hindrance	10,28,38,49,68,79,88,114	8
3. Esprit	2,17,22,35,39,63,81,91,98,104	10
4. Intimacy	7,21,36,43,52,93,106,111	8
Principal's Behaviour		
5. Aloofness	8,51,59,61,67,89,97,103	8
6. Production Emphasis	3,15,20,25,32,54,69,74	8
7. Thrust	6,14,24,34,41,48,56,83,110, 112	10
8. Consideration	1,13,30,46,53,57,65,70,72,77, 95,113	12
Administrative Behaviour		
9. Non-graded order	4,9,19,29,42,50,82,92,100	9
10. Feed-back	18,23,31,40,85,87,107,108,115	9
11. Human Relations	11,26,27,37,44,45,47,62,73,84, 90,101	12
12. Autonomy	5,12,58,60,66,71,96,99,102, 109	10
Total		115

These items are given in Appendix

As seen above, the OCDQ - Baroda Version consists of 115 items. They each sonsist of Likert-type statements. The respondents indicate to what extent each statement characterises their school. The scale on which the respondents register their answers is a five-point one (In Halpin-Croft's OCDQ it is a four point scale). The scale adopted for scoring the responses registered on the items of the OCDQ - Baroda version is as under :

Score

    1   Never occurs

    2   Rarely occurs

    3   Sometimes occurs

    4   Often occurs

    5   Very frequently occurs.

Thus, the maximum score possible for a respondent is 115 x 5 = 575. The responses for positive statements will be scored as they are listed above. The choices (responses) to negative statements in the tool will be scored using a reversed scale. The scores that will be obtained for each school will be in raw data form. They will be subjected to the process of double standardization, i.e. normatively and ipsatively and, thus, standard scores sub-test-wise will be

used in the process of identification of the organizational

climate of each of the sampled schools/ ,they will be taken up for

treatment in the section on "Procedures of Analysis and

Interpretation."

(2) The Sixteen Personality Factor Questionnaire

     (The 16 P.F. Questionnaire)

The 16 P.F. Questionnaire is the second instrument

to be used in the study. It was originally developed by

Cattell (1956) and was translated in Gujarati by the Investi-

gator with a few minor changes here and there to suit

conditions in the secondary schools of Gujarat and to be more

meaningful for their teachers.

The 16 P.F. Questionnaire (Form C), provided, as its

name implies, the multidimensional measurement of persona-

lity through normative scores on 16 bipolar factors.

This test was preferred for this study because, as

Vernon observes (1963), Cattell's basic personality factors

were extracted from L-R data, provided by successively

reducing the complete list of personality trait-names given

by Allport and Odbert (1956). By this method he hoped to

ensure comprehensive coverage of the whole sphere of

personality. This gets an additional support when Getzels
and Jackson (1963) suggest that the 16 P.F. has two specific
advantages which warrant its use in research viz., (1) it
provides scores on factors that are not purely evaluative;
and (2) it derives from an extensive programme of both
theoretical and empirical work carried on over a number of
years.Thus, each of the sixteen factors provides an entirely
new piece of information about the person.

The factors of the tool and the interpretation of their
scores are given ·in a capsule form in the next few pages.

Table 3.4: Capsule Description of the Sixteen Personality
        Factors

Low Scoring	High Scoring
FACTOR A	
ALOOF (Schizothymia) Versus	WARM, OUTGOING (Cyclothymia)
The person who scores low (standard score of 1 or 2) on Factor A tends to be stiff,cool, aloof. He likes things rather than people, working alone, and avoidance of clash of viewpoints. He is likely to be precise and 'rigid' in his way of doing things and in personal standards, and	The person who scores high on Factor A tends to be good-natured, easy-going,ready to co-operate, attentive to people, soft-hearted,kindly, trustful, adaptable. He likes occupations dealing with people and socially impres- sive situations. He readily forms active groups. He is generous in personal relations, less afraid of criticism, better able to remember names

Table 3.4 : (continue)

| Low Scoring | High Scoring |

Low Scoring

in many occupations these
are desirable traits. He may
tend, at times, to be cri- .
tical, obstructive, or hard.

High Scoring

of people, but he is often
less dependable in preci-
sion work and in obligations.

FACTOR B

DULL (Low General   Versus
  Ability)

BRIGHT (Intelligence)

The person scoring low
on Factor B tends to be
slow to learn and grasp,
dull, sluggish. He tends
to have little taste or
capacity for the higher
forms of knowledge, and
to be somewhat boorish.

The person who scores high
on Factor B tends to ιe quick
to grasp ideas, a fast lear-
ner, intelligent. He is usually
rather cultured.

FACTOR C

EMOTIONAL (General   Versus
  Instability)

MATURE (Ego strength)

The person who scores on
Factor C tends to be emo-
tionally inmature, lacking
in frustration, tolerance,
changeable, evasive, neuro-
tically fatigued, worrying,
easily annoyed, generally
dissatisfied, having neuro-
tic symptoms (phobias, sleep
disturbances, psychosomatic
complaints, etc.) Low
Factor C score is common to
almost all forms of mental
disorder (7).

The person who scores high
on Factor C tends to be
emotionally mature, stable,
calm, phelgmatic, realistic
about life, placid, possessing
ego strength, having an inte-
grated philosophy of life,
better able to maintain high
group morale.

Table 3.4 (continue)

Low Scoring		High Scoring
	FACTOR E	
SUBMISSIVE (Submission)	Versus	DOMINANT (Dominance)
The person who scores low on Factor E tends to be dependent, a follower, and to take action which goes along with the group. He tends to lean on others in making decisions, and he is often soft-hearted, expressive, and easily upset.		The person who scores high on Factor E tends to be ascendant, self-assured, assertive, independent-minded, bold in his speech to situations. He may at times be hard, stern, hostile, solemn, tough-minded, authoritarian.
GLUM, SILENT(Desurgency)	**FACTOR F** Versus	ENTHUSIASTIC (Surgency)
The person who scores low on Factor F tends to be taciturn, reticent,introspective. He is sometimes incommunicative, melancholic, anxious,depressed,smug, languid,slow.		The person who scores high on this trait tends to be cheerful,talkative,frank, expressive, quick,alert, unperturbable. He is frequently chosen as an elected leader.
	FACTOR G	
CASUAL (Weakness of character)	Versus	CONSCIENTIOUS (Super Ego Strength)
The person who scores low on Factor G tends to be fickle,undefendable,irresolute,unsteady,quiting. He is sometimes demanding, impatient,indolent,obstructive,lacking in internal standards.		The person who scores high on Factor G tends to be strong in character,persevering,responsible,determined, consistent,planful, energetic,cautious,wellorganized. He is usually conscientious,with high regard for moral standards, and prefers efficient people to other companions.

Table 3.4 (continue)

FACTOR   H

Low Scoring		High Scoring
TIMID (Withdrawn schizothymia)	Versus	ADVENTUROUS (Adventurous Cyclothymia)
The person who scores low on this trait tends to be shy, withdrawing, cautious, retiring, cool, a 'wall-flower'. He usually has inferiority feelings. He tends to be slow and im-peded in speech and in expressing himself, dis-likes occupations with personal contacts, prefers one or two close friends to large groups, and is not able to keep in contact with all that is going on around him.		The person who scores high on Factor H tends to be sociable, participating ready to try new things, spontaneous, abundant in emotional response. He is able to face wear and tear in dealing with people and gruelling emotional situa-tions, without fatigue. How-ever, he can be careless of detail, ignore danger sig-nals, and consume much time talking. He may be 'pushy' and active in interest in the opposite sex.

FACTOR I

TOUGH (Toughness)	Versus	SENSITIVE (Sensitivity)
The person who scores low on Factor I tends to be prac-tical, realistic, musculine, independent, responsible, but 'uncultured'. He is sometimes phlegmatic, hard, cynical, smug. He tends to keep a group operating on a practical and realistic 'no-nonsense' basis.		The person who scores high on Factor I tends to be tender-minded, imaginative, introspective, artistic, fastidious, excitable. He is sometimes demanding, impatient, dependent, imprac-tical. He dislikes crude people and rough occupations He tends to slow down group performance, and to upset group morale by negative remarks.

Table 3.4 (continue)

Low Scoring		High Scoring

FACTOR L

TRUSTFUL (Lack of
Paranoid Tendency)

Versus

SUSPECTING(Paranoid
Tendency)

The person who scores low
on Factor L tends to be
free of jealous tenden-
cies, adaptable, cheerful,
composed,concerned about
other people, a good team
worker.

The person who scores high
on Factor L tends to be mis-
trusting and doubtful. He is
often involved in his own
ego, is self-opinion-ated,
and interested in inter-
nal, mental life. He is
usually deliberate in his
actions,unconcerned about
other people, a poor team
member.

FACTOR M

CONVENTIONAL (Practical
Concernedness)

Versus

ECCENTRIC (Bohemian Un-
concern)

The person who scores low
on Factor M tends to be
anxious to do the right
thing, practical, and con-
formist. He is easily
concerned but able to
keep his head in emergen-
cies. He is often rather
narrowly correct and un-
imaginative.

The person who scores high
on FactorM tends to be un-
conventional, unconcern-
ed, bohemian, ego-centric,
sensitive,imaginative. He
sometimes makes emotional
scenes, is somewhat ir-
responsible, impractical,
undependable. He is often
rejected in group situa-
tions.

FACTOR N

SIMPLE (Naive
Simplicity)

Versus

SOPHISTICATED (Sophisti-
cation)

The person who scores low
on Factor N tends to be un-
sophisticated, sentimental,
and simple. He is easily
pleased and sometimes crude
and awkward.

The person who scores high
on Factor N tends to be
polished, experienced, wordly,
shrewed. He tends to be
hard-headed and analytical.
He has an intellectual,
unsentimental approach to
situations.

Table 3.4 (continue)

<table>
<tr><td>Low Scoring</td><td></td><td>High Scoring</td></tr>
</table>

FACTOR 0

CONFIDENT (Freedom from Anxiety)

Versus

INSECURE (Anxious Insecurity)

The person who scores low on Factor 0 tends to be placed, calm, with unshakable nerve. He has a mature, unanxious confidence in himself and his capacity to deal with things. He is resilient and secure.

The person who scores high on Factor 0 tends to be depressed, moody, a worrier, suspicious, brooding, avoiding people. He has a child like tendency to anxiety in difficulties. He does not feel accepted in groups or free to participate. High Factor 0 score is very common in clinical groups of all types.

FACTOR Q_1

CONSERVATIVE(conservatism)

Versus

EXPERIMENTING (Radicalism)

The person who scores low on Factor Q_1 tends to be over ly cautious and moderate. He is opposed to any change, inclined to go along with tradition, and tends not to be interested in analytical 'Intellectual' thought.

The person who scores high on Factor Q_1 tends to be interested in intellectual matters and fundamental issues. He frequently takes issue with ideas, either old or new. He tends to be more well informed, less inclined to moralize, and more inclined to experiment in life generally, more tolerant of convenience.

FACTOR Q_2

DEPENDENT(Group Dependence)

Versus

SELF-SUFFICIENT (Self-sufficiency)

The person who scores low on Factor Q_2 prefers to work and make decisions with other people, likes

The person who scores high on factor Q_2 tends to be independent, resolute, accustomed to going his own way,

Table 3.4 (continue)

Low Scoring		High Scoring
and depends on social approval and admiration. He tends to go along with the group and may be lacking in resolution.		making decisions and taking action on his own. He is not necessarily dominant, however, in his relations with others (see Factor E).

FACTOR Q_3

UNCONTROLLED (Poor Self-Sentiment)	Versus	SELF-CONTROLLED (High Self-sentiment)
The person who scores low on Factor Q_3 tends to lack will control and character stability. He is not too considerate, careful, or conscientious.		The person who scores high on Factor Q_3 tends to have strong control of his emotions and general behaviour, is inclined to be considerate, careful, and evidences what is commonly termed 'self-respect'. He sometimes tends, however, to be obstinate. Effective leaders are high on Q_3.

FACTOR Q_4

STABLE (Relaxation)	Versus	TENSE (Somatic Anxiety)
The person who scores low on Factor Q_4 tends to be calm, relaxed, composed, and satisfied (not frustrated).		The person who scores high on Factor Q_4 tends to be tense, excitable, restless, fretful, impatient. He is often overfatigued, but unable to remain inactive. He takes a poor view of group unity, orderliness, leadership.

Validity and Reliability of the 16 P.F. Questionnaire :

The internal validity of the test derived from the mean correlation of all single items with the factors they represent is +.37. Moreover, the mean correlation of each group of six items with the factor it represents is about +.71, which is decidedly high for so brief a test.

Scales with code names and test-retest reliability coefficients are included in Table 3.5 below :

Table 3.5 : Test-Re-test Reliabilities of the 16 Factors

Factor	Reliability	Factor	Reliability
A	.54	L	.45
B	.57	M	.39
C	.47	N	.41
E	.42	O	.32
F	.50	Q_1	.71
G	.41	Q_2	.45
H	.61	Q_3	.52
I	.55	Q_4	.55

Some of these are not high, but their departure from unity, it must be remembered, covers 'functional-fluctuation' i.e. changes in level of traits over a period of time as well as test unrealiability.

The raw scores obtained for each person on each of the 16 factors are then converted into Sten Scores, which are distributed over ten equal interval standard score points, from 1 through 10, with the population average (or mean) fixed at 5.5.

A number of researchers in the field of personality measurement with whom the present investigator had discussion on the test preferred to use a ten-point scale. Hence, the Sten system is preferred by the present researcher.

(3) The Pupil Control Ideology Form (The PCI - Baroda Version)

The third research instrument used in the present study was the Pupil Control Ideology Form. It was developed by the researcher himself with profuse feedback from the Research Seminars of the Department of Educational Administration, M.S.University of Baroda. The result was the PCI Form (Baroda Version).

The Pupil Control Ideology (the PCI - Baroda Version) consisted of fifty statements which measure teacher's view of pupil control on custodial-humanistic continuum. It may be mentioned here that the prototypes of custodial and humanistic orientations toward pupil control have been already discussed in Chapter I. Therefore, the repetition of the explanatory exposition is avoided here. Responses to each statement are measured on a five point Likert Scale ranging from 'strongly agree' (5-points) to 'strongly disagree' (1-point). Negative items are scored using a reverse scale. A high score signified a custodial attitude toward pupil control and a low score indicated a humanistic attitude toward control of pupils.

Developed by the researcher, the PCI (Baroda Version) is based on the literature, the theoretical definitions of the prototypic extremes developed in the earlier study of pupil control ideology by Willower, Eidell and Hoy (1967), the investigator's own experience in secondary schools over a period of time and the concepts of client control adapted from Gilbert and Levinson (1957).

Originally consisting of ninety statements concerning pupil control, the instrument was given to twenty experts

consisting of Professors of education, research students and in-service teachers. Modifications of the instrument based on their comments resuited in a sixty-five item form which was administered to 25 schools in the Bharuch district, Vadodara district, and Kheda district. Professional personnel in these schools responded to the PCI form.

Based on an item analysis using t-test technique, fifty items with a t-value greater than 1.96 were retained by the researcher. (The range of t-values was from 1.96 to 7.87). Validity and reliability of the final PCI-Form were calculated by the present researcher on the remaining 50-item final version of the instrument.

Validity and Reliability of the PCI (Baroda Version)

The method used in validating the PCI-Form was based on judgements of principals concerning the pupil control ideology of certain of their teachers. Descriptions of custodial and humanistic view points were read carefully by the principals of selected fifteen secondary schools. Then fifteen principals were asked to identify two teachers of each type from their schools whose ideology was most like either of the description. Within the same school, teachers

of each type were identified, mean scores on the PCI - Baroda
Version for these two groups of teachers were compared. A
t-test of the difference of the means of the two independent
samples was applied to test the prediction that teachers
judged to hold a custodial ideology would differ in the mean
PCI-test scores from teachers judged to have a humanistic
ideology. Using a one-tailed test, the calculated t-value
was 2.76 indicating a difference in the expected direction,
significant at the .01 level.

Reliability has been worked out as a test-retest corre-
lation with a two-week interval between. The value obtained
on a population of fifty teachers was 0.83 with application
of the Pearson's Product Moment method. Hence, the PCI -
(Baroda Version) appears to be relatively valid and reliable.

(4) The Dogmatism Scale

The fourth research instrument to be used in the
present study will be the Dogmatism Scale. It was developed
by Rokeach (1960) to measure individual differences in open-
ness or closedness of organization of belief-disbelief system
and was employed to measure open and closed mindedness of
teachers. The instrument is given in the Appendices.

The Dogmatism Scale (Form-E) is a self-administered tool consisting of 40 items covering three main areas viz., (1) The belief-disbelief dimension, (2) the central-peripheral dimension, and (3) the time-perspective dimension of dogmatism. On this instrument, subjects are directed to respond to each of the forty items by writing +1, +2, +3, -1, -2, -3, corresponding respectively to 'I agree a little', 'I agree on the whole', 'I agree very much', 'I disagree a little', 'I disagree on the whole', or 'I disagree very much'.

The instrument is scored by adding the constant +4 to the algebraic value of each item and summing the forty converted item scores. The theoretical range on the test is from 40 to 280. The interpretation will be: the higher the score, the more dogmatic or closed minded the respondent.

Validity and Reliability of the Dogmatism Scale

Data on the validity of the dogmatism scale have been provided through the use of the Method of Known Groups. Psychology students in a graduate seminar conducted by Rokeach selected high and low dogmatic persons from among their personal friends and acquaintances. In this way, a total of 20 subjects was obtained 10 judged to be extremely

high and 10 extremely low in dogmatism. A t-test of the difference of the means of the two independent samples was applied to test the prediction that individuals selected as high dogmatic persons would differ in mean Dogmatism Scale Scores from individuals judged to be low in dogmatism. Using a one-tailed test, the calculated t-value was 4.08, indicating a difference in the expected direction, significant at the .01 level. Relevant data in this regard are presented in Table 3.6 below :

Table 3.6 :   Comparison.Between High and Low Dogmatic Groups
              on Dogmatism

Persons judged as	N	Dogmatism Score mean
High Dogmatic	10	157.2
Low Dogmatic	10	101.1

t ≠ 4.08 df = 18.   P is greater than .01

The Scale's reported reliabilities range from .68 to .93 using both the split-half .and Test-Retest techniques with samples of English workers, students at several universities, and individuals at a Veterans' Administration domiciliary.
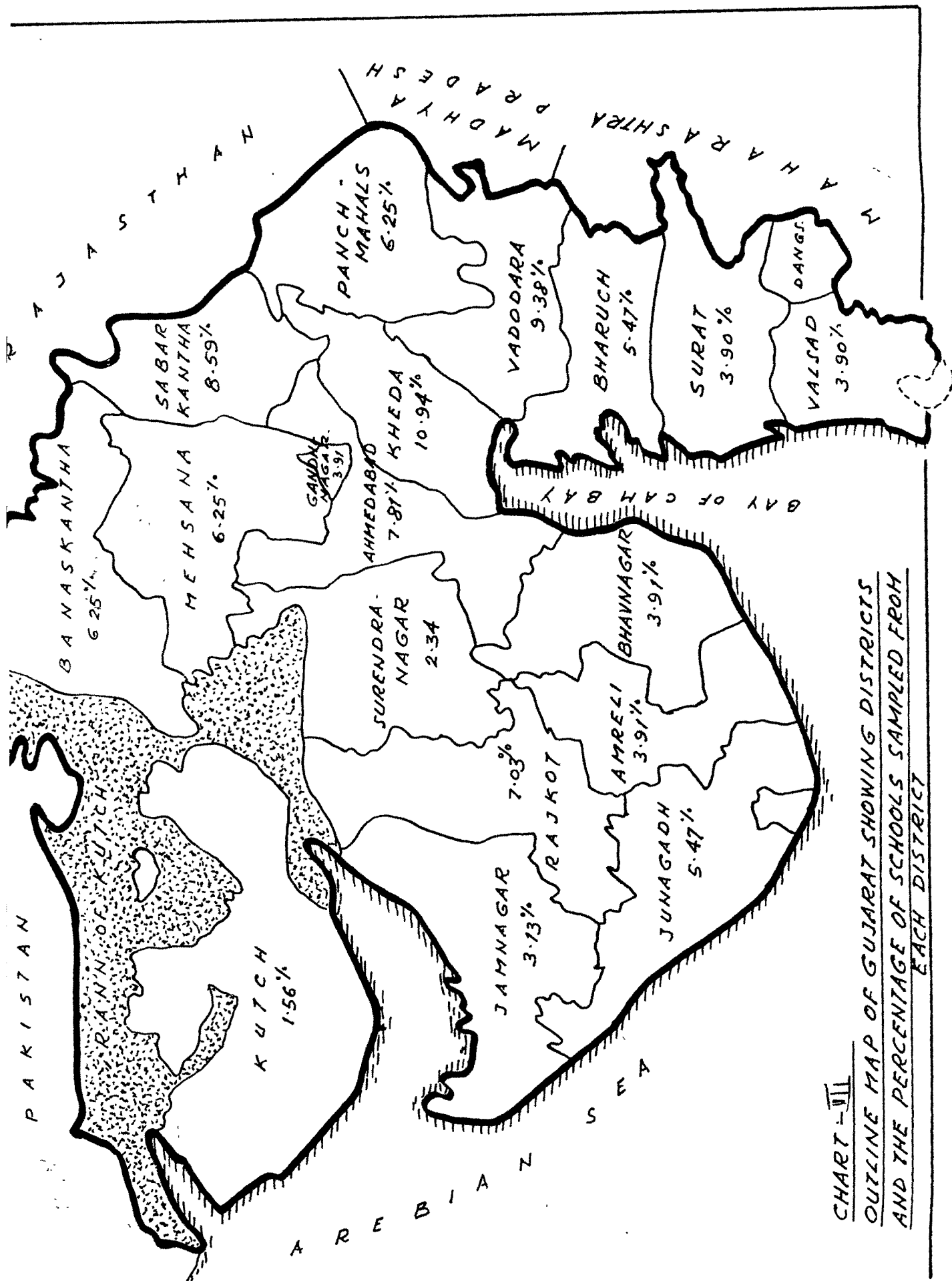
CHART – VII

OUTLINE MAP OF GUJARAT SHOWING DISTRICTS
AND THE PERCENTAGE OF SCHOOLS SAMPLED FROM
EACH DISTRICT

Labels on map:

RAJASTHAN

MADHYA PRADESH

MAHARASHTRA

PAKISTAN

ARABIAN SEA

BAY OF CAMBAY

RANN OF KUTCH

PANCH MAHALS 6.25%

VADODARA 9.38%

BHARUCH 5.47%

SURAT 3.90%

DANGS

VALSAD 3.90%

SABAR KANTHA 8.59%

KHEDA 10.94%

GANDHI NAGAR 3.9%

BANASKANTHA 6.25%

MEHSANA 6.25%

AHMEDABAD 7.81%

SURENDRA-NAGAR 2.34

BHAVNAGAR 3.91%

KUTCH 1.56%

JAMNAGAR 3.13%

RAJKOT 7.03%

AMRELI 3.91%

JUNAGADH 5.47%

(5)   Personal Data Sheet

This was constructed by the investigator to collect
some basic data of the teachers, such as, sex, age, quali-
fications, experience, etc. which can be used as static
variables.

3.8   THE SAMPLE

The research instruments described in the previous
section were intended to collect data for the study. For
this purpose a randomly selected representative sample of
high schools from Gujarat State was necessary. To select
the sample, the investigator took the four geographical
regions in which the State can be divided as the basis. From
the statistics, the investigator could collect from the
Office of the Directorate of Education and from the official
list of high schools published by it in 1974, the investi-
gator could know that there were, in 1975 when the data
collection began, 2,713 high schools .   spread all over
the State. He decided to choose for his study a randomly
selected sample of 4 to 5 per cent from each of the four
regions or the divisions of the State. This yielded a sample
of 128 high schools the region-wise break-up of which is
given in Table 3.7 below :
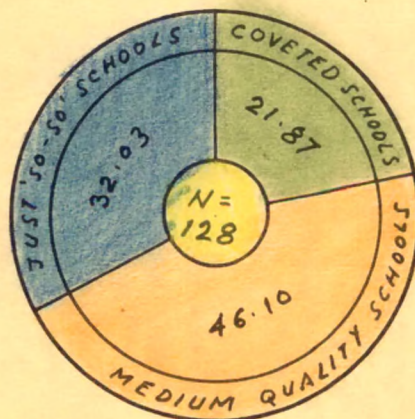
CHART - IV

CHARACTERISTICS OF THE SAMPLED SCHOOLS
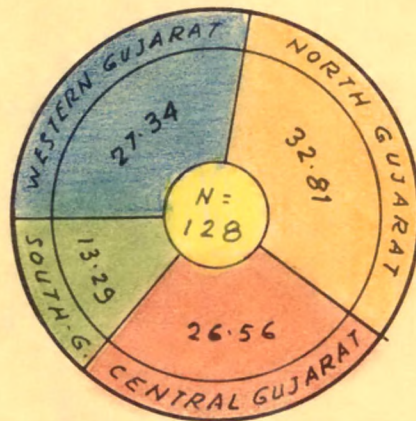
REGION-WISE BREAK-UP
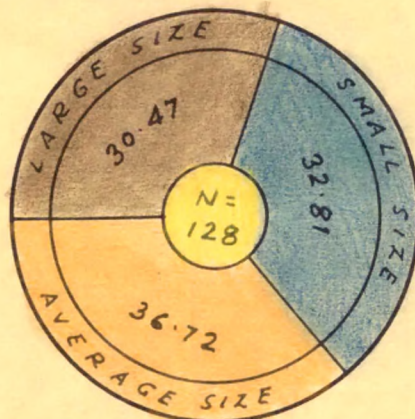
SIZE OF THE SCHOOLS

QUALITY CATEGORIES

Table 3.7 : Region-wise Break-up of the Randomly Selected
            Sample

Region	Total No.of High Schools	No.of Sampled High Schools	Percentage of Sampled High Schools
1. Western Gujarat (Saurashtra,Kutch)	643	35	5.44
2. North Gujarat (Banaskantha, Sabarkantha, Mehsana and Ahmedabad Districts)	901	42	4.66
3. Central Gujarat (Kheda, Panchmahals, and Vadodara Districts)	718	34	4.77
4. South Gujarat (Bharuch, Surat, Dangs, and Valsad districts)	451	17	3.77
Total	2,713	128	4.72

Thus, it would be seen that the selected sample is representative of all divisions of the State and its size of 128 or 4.72 per cent is viable enough for such a perception study.

The sample is further subjected to size-wise analysis to demonstrate another aspect of its representativeness.

Table 3.8 : Size-wise Break-up of the Sample. (N=128)

Size	Western Gujarat	North Gujarat	Central Gujarat	South Gujarat	Total
Large	12 (30.77)	14 (35.40)	7 (17.95)	6 (15.38)	39 (30.47)
Average	14 (29.79)	16 (34.04)	12 (22.53)	5 (10.64)	47 (36.72)
Small	9 (21.43)	12 (28.57)	15 (35.71)	6 (14.29)	42 (32.81)
Total	35	42	34	17	128

Note: Figures in brackets indicate percentages.

The Table 3.8 shows that out of the total 128 sampled schools, 39 or 30.47 per cent are 'large' sized schools, 47 or 36.72 per cent are of 'average' size and 42 or 32.81 per cent are 'small' size schools.

Of the total sampled 39 large schools, 12 or 30.77 percent belong to Western Gujarat, 14 or 35.90 per cent belong to North Gujarat, 7 or 17.95 per cent belong to Central Gujarat, and 6 or 15.38 per cent belong to South Gujarat.

In the 47 'average' sampled schools 14 or 29.79 per - cent are in Western Gujarat, 16 or 34.04 per cent in North Gujarat, 12 or 22.53 per cent in Central Gujarat and 5 or 10.64 per cent in South Gujarat.

Nine or 21.43 per cent are drawn from Western Gujarat,
12 or 28.57 per cent from North Gujarat, 15 or 35.71 per-
cent from Central Gujarat and 6 or 14.29 per cent from South
Gujarat; they constitute the small sized schools included in
the sample.

The 128 schools of the selected sample were further
divided into three categories, viz., (1) "Coveted Schools",
(2) "Medium Quality" or Average type of schools, and (3)
"Just-so so-schools" or the low quality schools. This
the investigator felt necessary to do because these three
categories of schools would provide the basis of studying
variations in Climate, personality traits, pupil control·
ideology and dogmatism - the major components of the study
and they will be the thread running through the entire study.

The above three cell classification was arrived at
on the basis of the following criteria selected after
consultation with District Education Officers, District
Head Masters' Association and some prominent teacher educa-
tors working in the South Gujarat University, M.S.University
of Baroda, Sardar Patel University and Gujarat University.
Their names appear in one of the appendices. The ten
criteria are as under :

(1) Schools possessing their own building built for school purposes.

(2) Quiet and peaceful school surroundings.

(3) Well ventilated classrooms with adequate floor space.

(4) Adequacy of school equipment, library and laboratory facilities.

(5) Adequacy of instructional aids and materials.

(6) Trained and experienced staff.

(7) Established traditions conducive to quality instruction.

(8) Staff and student discipline.

(9) S.S.C. results of last five years.

(10) Prestige in the local community.

The sampled 128 schools were divided into three categories with the consultation of the District Education Officers, Office Bearers or leaders of District Head Masters' Association and getting a 'feel' and 'feedback' from school teachers or knowledgeable local community leaders.

The three category-wise break-up of the sampled 128 high schools emerged through these exercises as under :

Table 3.9 : Three Category Division of the Sample

Category	No.of Schools	Percentage of the total sampled schools
1. Coveted Schools	28	21.87
2. Medium Quality schools	59	46.10
3. Just 'so so' schools	41	32.03
Total	128	100.00

It will be seen that (a) in each category sufficient quantum of sampled schools is covered; (b) it can be broadly assumed that as these categories were carved out of a stratified proportionate sample, the schools in the three categories are fairly representative and (c) the three cell categorization reflects not only the general public perceptions but also expertise evaluation by competent authorities. The above three-way break-up of the sample is, therefore, deemed to be representative and good enough to project the data collection for the present study geared on them.
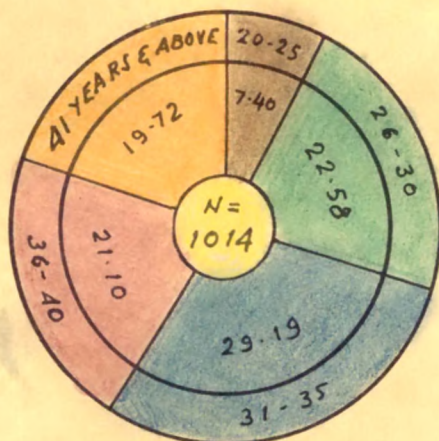
The study is a perception study. The subjects whose perceptions are used are the teachers of 'the sampled 128 schools who are randomly selected.The total number of the

respondent teachers is 1,014. Table 3.10 presents some meaningful biographical or personal data about these 1,014 respondents. The data pivot around variables of (a) sex, (b) age, (c) qualifications, (d) teaching experience and (e) socio-economic status.

Reference to the Table 3.10 reveals that apparently, the number of male-teacher respondents is found approximately four times of the number of female teachers selected for the present study. This is broadly the proportion of male-female secondary school teachers in Gujarat as revealed in studies by Saroj Desai (1972), Sheth (1973), Dhirubhai Desai (1974) and Chitra Desai (1976). In the case of age and experience of the responding teachers, the data show that the majority of them are found in their ages within the range of 31-35 years and their experience is within the range of 6-10 years. For their qualifications, it is seen from the table that the majority of them (749 or 73.87 per cent) are trained graduates and qualified for their job. In the case of the SES of the teachers, the data reveal that the majority of the teachers (404 or 40.34 per cent) are coming from Low--middle class. From Table 3.8 it is observed that the majority of the respondent teachers are serving in 'average' -
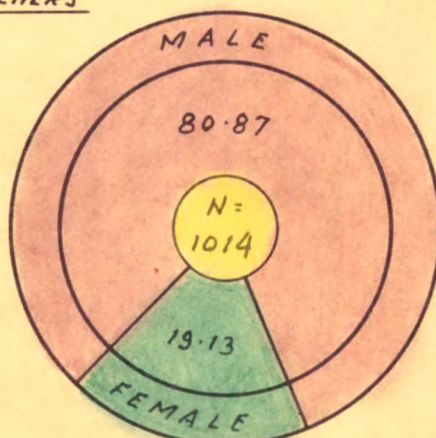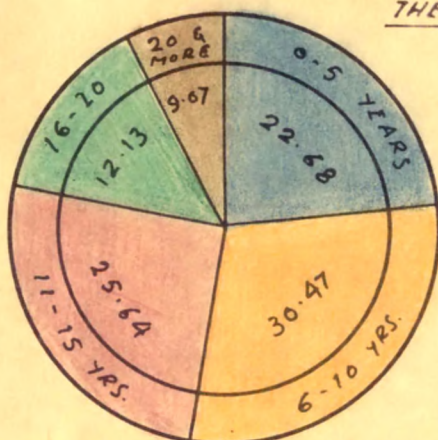
CHART - V

BIOGRAPHIC CHARACTERISTICS OF TEACHERS
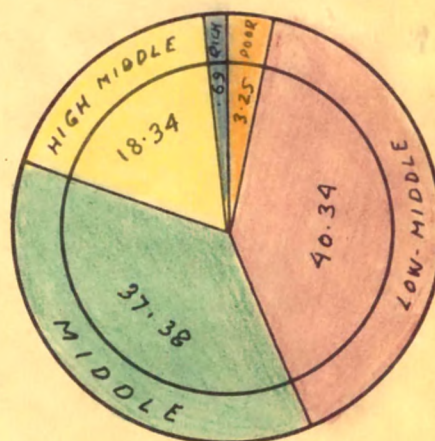

AGE-WISE CLASSIFICATION OF THE TEACHERS

- 20-25 : 7.40
- 26-30 : 22.58
- 31-35 : 29.19
- 36-40 : 21.10
- 41 YEARS & ABOVE : 19.72
- N = 1014
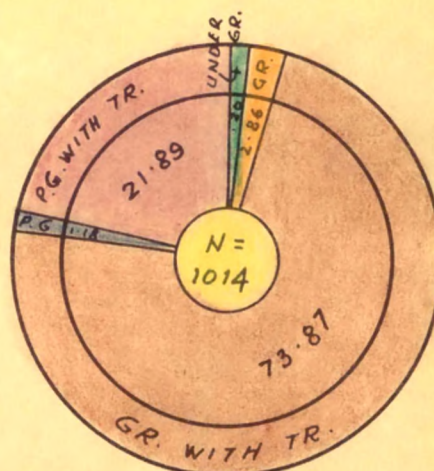
QUALIFICATION-WISE CLASSIFICATION OF THE TEACHERS

- P.G. WITH TR. : 21.89
- UNDER GR. : 2.86
- GR. :
- P.G. : 1.8
- GR. WITH TR. : 73.87
- N = 1014

SEX-WISE CLASSIFICATION OF THE TEACHERS

- MALE : 80.87
- FEMALE : 19.13
- N = 1014

EXPERIENCE-WISE CLASSIFICATION OF THE TEACHERS

- 0-5 YEARS : 22.68
- 6-10 YRS. : 30.47
- 11-15 YRS. : 25.64
- 16-20 : 12.13
- 20 & MORE : 9.67

SES-WISE CLASSIFICATION OF THE TEACHERS

- HIGH MIDDLE : 18.34
- RICH : .69
- POOR : 3.25
- LOW-MIDDLE : 40.34
- MIDDLE : 37.38

Table 3.10 : Personal Data Regarding the Teachers

Sr. No.	Variable	No.	Percentage
1.	Sex		
	Male	820	80.87
	Female	194	19.13
2.	Age		
	20-25 years	75	7.40
	26-30 years	229	22.58
	31-35 years	296	29.19
	36-40 years	214	21.10
	41- years	200	19.72
3.	Qualifications		
	Undergraduate	2	0.20
	Graduate	29	2.86
	Graduate with Training	749	73.87
	Postgraduate	12	1.18
	Postgraduate with training	222	21.89
4.	Teaching Experience		
	0-5 years	230	22.69
	6-10 years	309	30.47
	11-15 years	260	25.64
	16-20 years	123	12.13
	20 years and more	92	9.07
5.	Socio-Economic Status		
	Poor class	33	3.25
	Low-middle class	409	40.34
	Middle class	379	37.38
	High middle class	186	18.34
	Rich class	7	0.69

The division-wise break-up of these data is given in the Appendices at the end of the present study.

sized schools. The percentage of the sample of teachers selected for this study is 3.02 per cent which should be deemed fair enough to yield meaningful data considering the large and increasing population of secondary school teachers in Gujarat State.

Thus, the researcher has endeavoured to make his sample random, proportionate, and multi-dimensional/stratified.

3.9   THE HYPOTHESES

As stated earlier, the primary concern in the present study is to discover the extent to which organizational climate of secondary schools of Gujarat State differs among themselves in regard to three climate typology on climate continuum, with Open Climate at one extreme, the Closed Climate at the other extreme and the Intermediate Climate occupying a middle level position on the continuum. Thus, the organizational climate of secondary schools is the dependent variable. This variable is intended to be studied in perspective of some factors relating directly to schools and a few others that seem to influence the

. perceptions of the teachers of these schools about their climate. Keeping these focal points in mind, the investivator has formulated five groups of the Hypothesis :

(a) Group I includes Hypotheses pertaining to Climate typology and climate dimensions;

(b) Group II covers Hypotheses that deal with some selected variables pertaining to schools which seem to be the contributing factors in creating climate variations.

(c) Group III - Hypotheses are focused on teachers - the respondents, the facts about whom may be causative factors of climate variations.

(d) Group IV will include such Hypotheses that established relationship of climate with other independent variables that are not directly related to climate.

(e) Group V will include Hypotheses focused on the two independent variables (the PCI and the Belief Systems)

In all 18 hypotheses are formulated -

Group I (Hypothesis: Pertaining to Climate Typology)

1. Organizational climate of secondary schools of Gujarat would show marked variations.

2. There are no true differences between mean principal perceptions and mean school teacher perceptions of

organizational climate dimensions, as measured by the OCDQ (Baroda Version).

Group II (Hypotheses pertaining to School Variables)

3. The secondary schools in different regions of the State will not show significant variations in their Open and Closed climate typology.

4. Large sized secondary schools of the State will be significantly more Closed than small sized secondary schools.

5. The Coveted secondary schools would tend to manifest Open Climate typology to a greater extent than the middle quality secondary schools, and 'just-the-schools' category of secondary schools would manifest Closed climate to a greater extent than the middle quality schools.

Group III (Hypotheses pertaining to Teacher Variables)

6. Teachers' perception of school climate will differ according to their biographical factors.

7. There are no true differences in mean personality factors as measured by the 16 P.F. questionnaire among teachers in secondary schools characterized by different climate types, as determined by the patterns of sub-test scores on the OCDQ (Baroda Version).

Group IV (Climate and other major variables)

8. There are no true differences in mean orientation
towards pupil control ideology, as measured by the PCI
(Baroda Version) of teachers in schools characterized
by different climate types, as determined by the patterns
of sub-test scores on the OCDQ (Baroda Version).

9. There are no true differences in mean belief systems
as measured by the Dogmatism Scale, among teachers
in schools characterized by the different climate types,
as determined by the patterns of sub-test scores on the
OCDQ (Baroda Version).

Group V (Independent Major Variables - the PCI and the
Belief Systems)

10. The P.F. factors of teachers in "Coveted Schools",
"the Middle Quality Schools" and "Just-the-Schools"
will differ.

11. The pupil control ideology of teachers in the "coveted
schools", the "Middle Quality Schools" and "Just-the-
-Schools" will differ.

12. Orientation toward pupil control ideology is independent
of certain biographical characteristics of teachers.

13. The belief systems of teachers in the "coveted Schools",
the "Middle Quality Schools" and "Just-the-Schools"
will differ.

14. The personality factors of teachers of larger and smaller schools will differ.

15. The pupil control ideology of teachers of larger and smaller schools will differ.

16. The belief systems of teachers of larger and smaller schools will differ.

17. There is no linear relationship between PCI of teachers and their personality factors.

18. The degree of openmindedness of the teachers is independent of certain biographical characteristics.

These 18 Hypotheses will constitute the bulwark of the present study.

3.10 STATISTICAL PROCEDURE

In analysing the data yielded by the five research instruments, the following sophisticated statistics will be deployed.

(1) The OCDQ (Baroda Version) will be constructed by finding out item-total correlations (dimension-wise) - computing the product-moment coefficient of correlation.

(2) Based on an item analysis using t-test technique the PCI-Form will be developed.

(3) The mean personality scores will be calculated for each of the sixteen personality factors according to climate categories of the schools, and t-test (significance of the difference between means) will be used to isolate significantly different pairs of means associated with each personality factor.

(4) Mean PCI scores will be calculated for each climate category of the schools and t-test (significance of the difference between means) will be used to identify pairs of means that are significantly different.

(5) Mean dogmatism scores will be calculated for each climate category of the schools and t-test (significance of the difference between means) will be applied to identify pairs of means that are significantly different.

(6) Chi-square test will be applied to find out the significant relationship between the climate categories of the schools and the three types of schools, viz., coveted schools, Medium Quality schools and Just 'so so' schools.

(7) Chi-square test will be used to find out the significant relationship between the climate categories of the schools and the different size of schools.

(8) Chi-square test will be utilised to find out the significant relationship between climate categories of the schools and the location of the schools.

(9) Mean PCI scores will be calculated for each type of schools and the one-way analysis of variance and Scheffe' tests will be used to identify pairs of means that are significantly different.

(10) Mean dogmatism scores will be calculated for each type of schools and the one-way analysis of variance and Scheffe' tests will be used to identify pairs of means that are significantly different.

(11) Mean PCI scores will be calculated for three different sizes of schools and the one-way analysis of variance and Scheffe' test will be used to identify pairs of means that are significantly different.

(12) Mean Dogmatism Scores will be calculated for three different sizes of schools and the one-way analysis of variance and scheffe' test will be applied to identify pairs of means that are significantly different.

(13) Investigation of the relationship between certain demographic characteristics of teachers and the following variables :

(1) teachers' pupil control ideology, and

(2) belief system of teachers

will be tested by applying t-test.

In brief, the above statistics will be used in the study to analyse and interpret the data yielded by the research tools.

3.11 CONCLUSION

Such is broadly the research design of the present study. The focal points of the design are the scope, objectives, the sample, tools, the framework of the Hypotheses and the statistical procedures as mapped out above. Most of the focal points have been determined on the basis of the scrutiny of the earlier researches attempted on school climate and the correlates of climate studied so far. The study is an attempt to fill out some gaps left by earlier studies. It should be noted here that Pupil Control Ideology and Teachers' Dogmatism - Belief Systems figure for the first time in the study. Similarly, the research

instruments of the OCDQ (Baroda Version) and the PCI
(Baroda Version) are newly constructed and statistically
refined by the investigator specifically for the present
study.

In the next chapter the analysis and interpretation
of the data yielded by the research instruments and the
testing of the Hypotheses that provided the marrow of the
study will be taken up.