CHAPTER III :

PROBLEM AND PROCEDURE

- Introduction

- Problem

    Statement of the Problem

-    Objectives

    Hypotheses

    Variables

- Procedure

    Plan

    Sample

    Selection and Description of the Tools

    Data Collection

    Scoring

    Statistical Analysis

3.0000 <u>Introduction</u> : The present chapter deals with the specification of the problem and reporting of the procedure. The problem consists of the exact statement of the problem, different objectives and hypotheses, and the description of the variables. The procedure includes plan of the study, nature of the sample, selection and description of the tools, collection of data, and scoring and statistical analysis of data.

3.1000 <u>PROBLEM</u> :

The problem of the study is given under :
statement of the problem, objectives, hypotheses and variables.

3.1100 <u>Statement of the Problem</u> :

The exact formulation of the problem is, "A critical evaluation of the educational programmes, teaching and instructional facilities offered at the elementary stage in Baroda Municipal Corporation Schools and schools run by private agencies in Baroda city."

3.1200 <u>Objectives</u> :

The study has been conducted keeping in view the following objectives :

1. To evaluate and compare private and public schools in terms of pedagogical inputs, like : teaching methods, and instructional facilities.

2. To compare economical (finance), and socio-psychological (organizational climate and leadership behaviour) inputs of private and public schools.

3. To compare the output in terms of achievement of the students of the private and public schools.

3.1300 Hypotheses :

The following hypotheses were formulated for the investigation of the present study :

1. There is no difference in the teaching methods used in the private and public schools.

2. There is no difference in the physical facilities provided in the private and public schools.

3. There is no difference in the library facilities provided in the private and public schools.

4. There is no difference in the staff composition of the private and public schools.

5. There is no difference in the instructional materials provided in the private and public schools.

6. There is no difference in the co-curricular activities of the private and public schools.

7. There is no difference in the assessment schemes of the private and public schools.

8. There is no difference in the per student expenditure of the private and public schools.

9. There is no difference in the organizational climate of the private and public schools.

10. There is no difference in the leadership behaviour in the private and public schools.

11. There is no difference in the achievement of the students of the private and public schools.

12. There is no difference in the achievement of the students belonging to the same socio-economic status and going to two different systems of schools.

3.1400 <u>Variables</u> :

Various variables taken under the present study were as follows :

- types of schools,

- various school inputs like pedagogical,
  economical and socio-psychological, and

- output, that is achievement of the students.

These variables are defined, illustrated and explained
in the subsequent paragraphs.

3.1410 <u>Types of Schools</u> :

Schools can be classified in various ways. One
of the classifications is based on the nature of management -
controlling the school; whether the management is government
or any non-governmental body. Broadly, there are two systems
of schools: (i) schools run by the government-public schools
(ii) schools run by the private agencies-private schools.
In the present study, the above mentioned two systems of
schools were compared input and outputwise.

3.1411   <u>Private Schools</u> :   Private schools are owned
and run by non-governmental groups and organisations. They
may be aided as well as non-aided. These schools are founded
and administered by various private bodies. The private
schools are operationally defined as, "the elementary schools

run by non-governmental management, having I to VII
standards, whether aided or non-aided, and situated within
the jurisdiction of the Baroda Municipal Corporation".

3.1412   Public Schools :   Public schools are set up and
managed by the State or local bodies like municipal corpora-
tion. The public schools are operationally defined as, "the
elementary schools run by the Baroda Municipal Corporation,
having I to VII standards and situated within the juris-
diction of the Baroda Municipal Corporation".

3.1420   School Inputs :

         Educational system includes all the factors which
directly or indirectly influence the teaching-learning
process. The effective functioning of this system depends
upon the way the various inputs - material, financial and
human - are utilized leading to a profitable output in the
form of an educated youth equipped with knowledge, skill and
capacities necessary not only for productive labour but
also for successful citizenship. The school being the actual
arena of action, stimulates the inputs to interact in order
to make the instructional process effective. The inputs
which are provided in the school can broadly be categorised

as 'pedagogical', 'economical' and 'socio-psychological'.
The pedagogical inputs include those resources, which are
directly involved in teaching and learning. These inputs
can be - 'teaching methods', 'physical facilities', 'library
facilities', 'staff composition', 'instructional materials',
'co-curricular activities' and 'assessment scheme'.

The provision of all these pedagogical inputs depends
upon the economical resources, a school system has and this
input. is 'finance'. These inputs by themselves do not lead
to the desired growth of the pupil (output). There is
constantly an interaction taking place between these factors
and the human resources namely principal, teachers, and
pupils. Out of such constant interaction emerges a climate
in the school along with an accepted leadership pattern.
The nature of leadership provided by the principal, decides,
to a large extent the type of the school climate. Growth of
the pupil is to a greater extent directed by these two
factors, namely, leadership and climate. This is because
of the fact that all the activities or experiences provided
in the school are guided by the principal, who is the chief
motivator of the climate in a school. The pattern of leader-
ship and the resultant climate offers a 'socio-psychological'

environment in which every pupil lives and grows. These socio-psychological factors also act as inputs because, they expose the pupil to many socio-psychological processes that aid his or her growth.

The three inputs taken in the study - pedagogical, economical and socio-psychological are shown in Figure 3.1 and are defined and explained in the following paragraphs.

3.1421 Pedagogical Inputs :

The inputs which are directly related to the process of teaching and learning are termed as pedagogical inputs. These inputs can range from material objects like chalk, blackboard to personnel like principals and teachers. Pedagogical inputs are further classified into (i) teaching methods, and (ii) instructional facilities.

A. Teaching Methods :

Various methods used by teachers while imparting instructions to the students are termed as 'teaching methods'. They include discussions, demonstration, group technique or story telling etc. Operationally defined teaching methods are "textbook method, question-answer, group technique, audio-visual aid, field trip, role play,
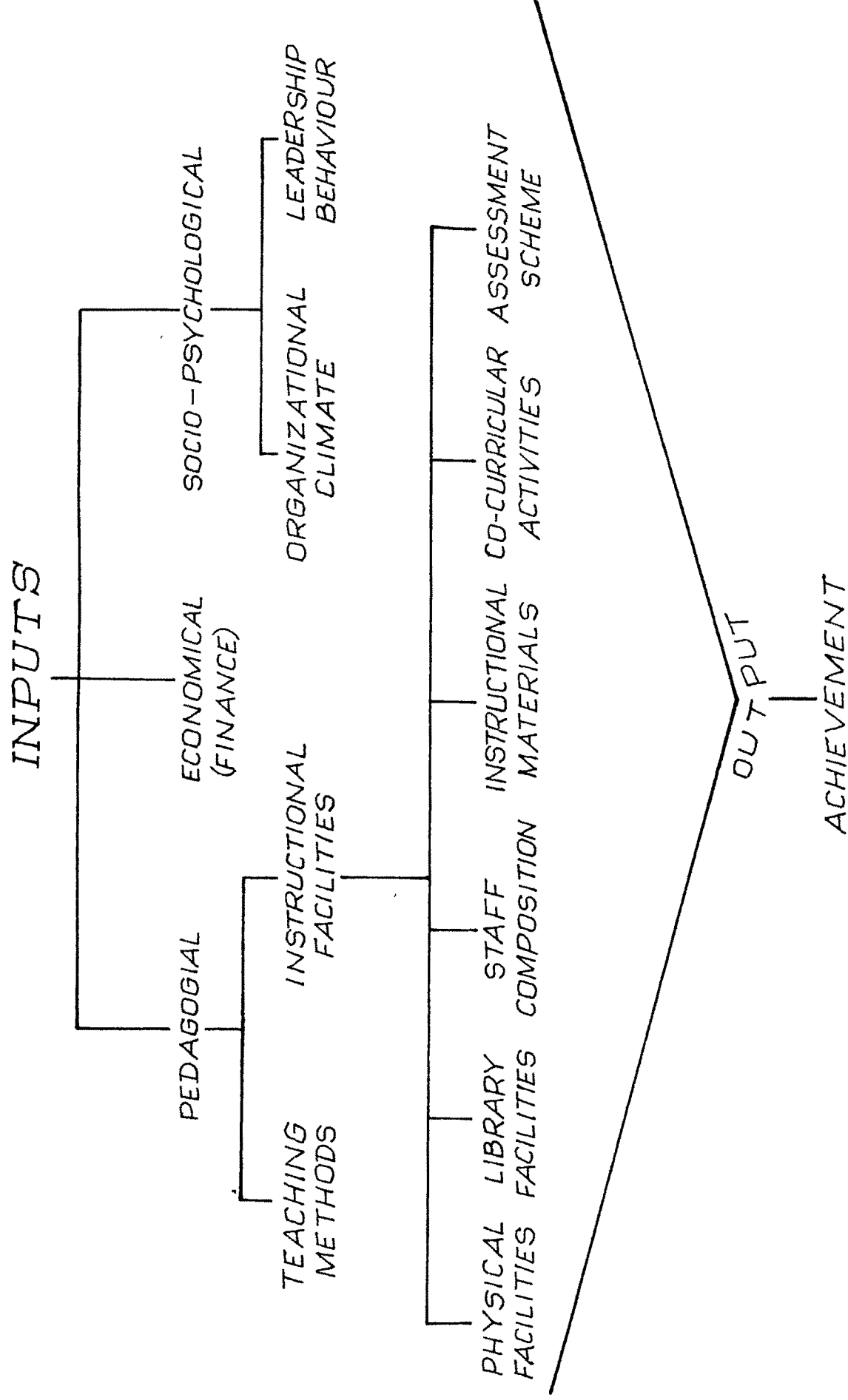
INPUTS

PEDAGOGIAL   ECONOMICAL (FINANCE)   SOCIO-PSYCHOLOGICAL

TEACHING METHODS   INSTRUCTIONAL FACILITIES   ORGANIZATIONAL CLIMATE   LEADERSHIP BEHAVIOUR

PHYSICAL FACILITIES   LIBRARY FACILITIES   STAFF COMPOSITION   INSTRUCTIONAL MATERIALS   CO-CURRICULAR ACTIVITIES   ASSESSMENT SCHEME

OUTPUT

ACHIEVEMENT

FIGURE-3.1 SHOWING THE INPUTS-OUTPUT OF THE STUDY

dramatization, story telling, demonstration, problem solving, translation grammar, direct method, and structural approach".

B. Instructional Facilities :

The instructional facilities are further classified into six factors. They are - physical facilities, library facilities, staff composition, instructional materials, co-curricular activities, and assessment scheme.

(i) Physical Facilities : Physical facility is related to a building or site belonging to or used by a school for educational purpose. The operational definition of physical facilities includes "location, neighbourhood of the school, school building, different rooms, size of the classroom, sitting arrangement and transport facilities".

(ii) Library Facilities : A library is a building or a room equipped for housing books and other materials of communication and used for reading or listening purposes. For this study, library is so defined as to include "librarian, reading room, and number of books per student".

(iii) <u>Staff Composition</u> : A systematic
arrangement of teachers in groups on the basis of one or
more factors, such as type of certificate and salary rank is
the staff composition. In this study 'staff composition' is
operationally defined as to include "the qualification and
experience. of the teachers".

(iv) <u>Instructional Materials</u> : The
equipments used while teaching are the instructional
materials. In the present work, "audio-visual aids and any
such communication aids are defined as instructional
materials".

(v) <u>Co-Curricular Activities</u> : Those
activities which are different from typical classroom
instruction are co-curricular activities. In the present
study, the 'co-curricular activities' are defined in terms
of "provision for games and sports, cultural programme,
painting, gardening, literary activities, scouting and
student union."

(vi) <u>Assessment Scheme</u> : Assessment scheme is
prepared in the school in order to assess the academic,
physical as well as the social growth of the students. In

this study, the assessment scheme is defined in terms of
"examinations held, type of questions asked in the examina-
tions, and the content of the progress report."

3.1422 Economical Input :

Finance is taken as an economical input. For
the present work 'finance' is defined in terms of the
"expenditure on instructional materials, physical and health
education, ancillary services, staff salary, administration
and supervision and the per student expenditure".

3.1423 Socio-Psychological Inputs :

Organizational climate and leadership behaviour
are taken as the socio-psychological inputs. These two
inputs are defined as follows :

A. Organizational Climate :

Organizational climate is defined as,
"interaction that takes place between organizational members
as they fulfil their prescribed roles while satisfying their
individual needs. Furthermore, it is the resulting condition
within the school, of social interaction among the teachers
and the principal."

There are six types of climates, which are as follows :

(i) <u>Open Climate</u> :   The group members enjoy friendly relations with each other. The teachers obtain considerable job satisfaction. The principal's policies facilitate the teachers' accomplishment of their tasks.

(ii) <u>Autonomous Climate</u> :   The principal gives complete freedom to teachers to provide their own structures for interaction so that they can find ways within the group for statisfying their social needs. The principal remains aloof from the teachers.

(iii) <u>Paternal Climate</u> :   The paternal climate is characterised by the ineffective attempts of the principal to control the teachers as well as to satisfy their social needs. This behaviour is perceived by teachers as non-motivating.

(iv) <u>Closed Climate</u> :   The closed climate is characterised by high degree of apathy on the part of all members of the organization. The teachers do not work together with group spirit. The principal believes in giving dictatorial directives in order to get the work done.

(v) <u>Controlled Climate</u> :   The teachers are completely engaged in a task and due to heavy controls on the part of the principal, they cannot pull in different directions. The teachers. of such climate type school perceive their principal as highly dictatorial.

(vi) <u>Familiar Climate</u> :   The familiar climate is characterised by the conspicuously friendly behaviour of both, the principal and the teachers. The teachers have established personal friendships among themselves and socially, everyone is part of a big family. The principal does not apply high controlls.

B.   <u>Leadership Behaviour</u> :

The use of the term 'leadership' applies to the behaviour of the principal's functioning vis-a-vis members of a group in an endeavour to facilitate the solution of group problems. There are two specific dimensions of leader behaviour: (i) initiating structure, and (ii) consideration.

<u>Initiating Structure</u> :   Initiating structure refers to the leader's behaviour in delineating the relationship between himself and members of the work-group, and in

endeavouring to establish well-defined patterns of communi-
cation and methods of procedure. Initiating structure can be
either high or low.

Consideration : Consideration refers to
behaviour indicative of friendship, mutual trust, and warmth
in the relationship between the leader and the members of
his staff. Consideration can be either high or low.

A combination of these two dimensions: initiating
structure, and consideration leads to four patterns of
leadership behaviour, these are, high initiative high
consideration (HH); high initiative low consideration (HL);
low initiative high consideration (LH); and low initiative
low consideration (LL).

3.1424   Output :

The ultimate aim of any educational system is to
imbibe the youth with the desirable traits required for good
citizenship. The school is the training ground where all the
resources or inputs are directed towards pupil growth in
order to give wide variety of attitudes, skills and knowledge
to each pupil. But the measures of results tend to be

narrow; that is they typically consist of a single performance criterion, for example, students' scores on various kinds of standardized achievement tests. Moreover, information about the school milieu is also frequently limited. The limitation is that, only a very few schools may collect information on any sizeable number of dimensions. The most popularly measured dimension is students' academic performance. In this study, the academic achievement of the students was taken as 'output'. To define it operationally, achievement is the "scores gained on the achievement test."

This was a brief description of the different variables, taken for the present study.

3.2000 PROCEDURE :

The process of reporting consists of the plan of the survey, sample, selection and description of tools, collection of data, scoring and analysis of data.

3.2100 Plan :

It was planned to conduct the study in four phases as shown in Table 3.1.

Table 3.1 Plan of the Study

Phase	Information From	Tool	Information Regarding
First	Principals	1. Evaluative Criteria (principal)	Physical Facilities, Finance, Staff Composition, Library Facilities
		2. OCDQ	Organizational Climate
Second	Teachers	1. Evaluative Criteria (teacher)	Teaching Methods, Instructional Materials, Co-curricular Activities, Assessment Scheme
		2. OCDQ	Organizational Climate
		3. LBDQ	Leadership Behaviour
Third	Students	1. Desai-Bhatt Group Intelligence Test	Intelligence
		2. Achievement Test	Achievement
Fourth	Parents	1. Interview Schedule	Parent's Reaction

During the first phase, two tools namely 'Evaluative Criteria (principal)' and 'OCDQ' were to be administered to the principals in order to gain the information about physical facilities, finance, staff composition, library facilities and to measure the organizational climate.

In the second phase, three tools were to be administered to the teachers - 'Evaluative Criteria (teacher)', 'OCDQ' and 'LBDQ'. The information gathered through these tools relates to teaching methods, instructional materials, co-curricular activities, assessment scheme, organizational climate and leadership behaviour.

In the third phase, two tools were to be administered to the students; 'Desai-Bhatt Group Intelligence Test' to measure the intelligence, and 'Achievement Test' to measure the achievement of the students.

During the fourth phase, parents were to be interviewed through an 'Interview Schedule' in order to know their opinion about their children's education.

Table 3.2   Sample Distribution

School Systems	Sample Distribution				
	Schools	Principals	Teachers	Students	Parents
Private	16	16	112	300	50
Public	26	26	182	300	50

3.2200 Sample :

Individual school was taken as a unit. All the elementary schools having I to VII standards from public (corporation) and private schooh systems in the city of Baroda constitute the population of this study. Stratified random sampling technique was used for selecting the schools. Stratification was done in order to cover the six geographical zones of Baroda city as defined by the Baroda Municipal Corporation.

There were 104 public and 64 private primary schools in Baroda city in the year 1975. Twentyfive per cent of schools from each of the systems of schools were included in the sample of schools. In the process, sixteen private and twentysix public schools were taken up for the study. (Fig. 3.2).
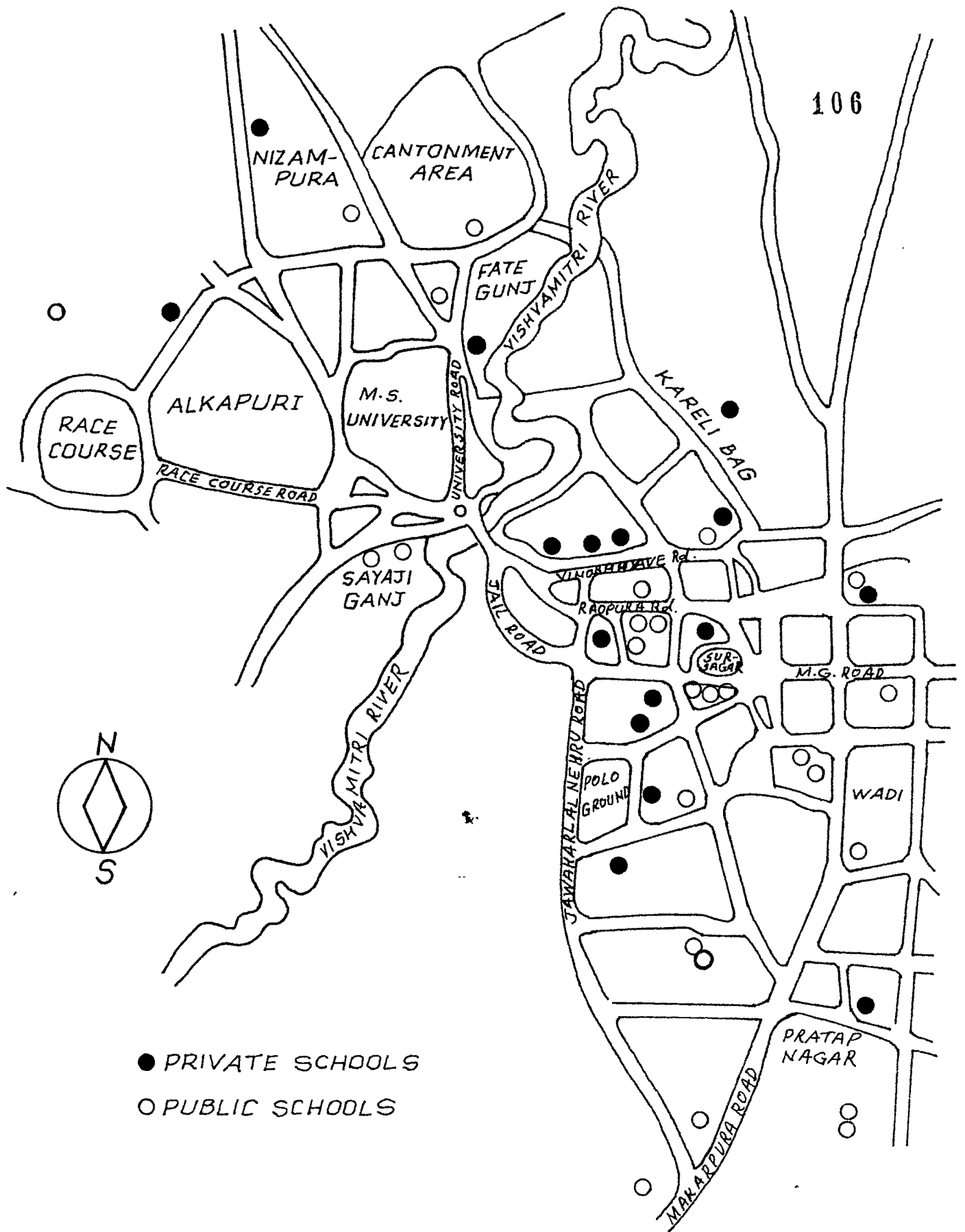
FIGURE 3·2 SHOWING THE SAMPLE DISTRIBUTION OF THE SCHOOLS IN BARODA CITY.

The respondents of the study were the principals, teachers, students and parents (Table 3.2). Their sample is given separately in the following paragraphs.

A. Principals : Once the schools were selected, all the principals of these schools constitute the sample of principals. Thus, fortytwo principals in total were taken up for this study.

B. Teachers : It was considered that an elementary school would have minimum of seven teachers. Therefore, seven teachers from each school were selected in order to represent all the seven classes. By selecting seven teachers from each of the fortytwo schools, the sample of the teachers total upto 294 (42 x 7).

C. Students : Ten schools from each system were taken to represent all the geographical zones. Thirty students belonging to 7th standard from each school were selected at random. Thus, a total of 600 (30x20=600) students forms the sample of the students of both the school systems.

D. Parents : Hundred parents, fifty from each system were interviewed by the investigator. For this, ten schools

were selected, five from each system, and from each school,
the parents of ten students were contacted. In total,
hundred parents (10x10=100) were interviewed.

3.2300 **Selection and Description of the Tools** :

Various tools were either selected or prepared
by the investigator in order to get the information pertain-
ing to the objectives of the study. In all, seven tools
were used. These seven tools were, 'Evaluative Criteria
(principal)'; 'Evaluative Criteria (teacher)'; 'Organiza-
tional climate Description Questionnaire (OCDQ)'; Leadership
Behaviour Description Questionnaire (LBDQ)'; 'Desai-Bhatt
Group Intelligence Test'; 'Achievement Test'; and 'Interview
Schedule'. The selection, construction and description of
the tools, scoring procedure of the evaluative scheme, and
uses of the tools are given in the following paragraphs.

3.2310 **Evaluative Criteria (Principal)** :

The tool 'Evaluative Criteria (principal)', was
prepared by the investigator and was administered to the
principals to collect the information regarding various
school inputs like - physical facilities, finance, staff
composition and library facilities.

<u>Construction of the Tool</u> :   On the basis
of 'The Evaluative Criteria for Secondary Schools' prepared
by Rawat (1970), and discussions with the teachers of the
elementary schools, the investigator prepared several items
covering school inputs, like physical facilities, finance,
staff composition, and library facilities. The questions
asked were either in multiple choice or open-ended form.
The items were finalised with the help of five judges. The
final form of the tool is given in appendix A-I.

<u>Description of the Tool</u> :   The tool
'Evaluative Criteria (principal)' has five subsections,
such as (1) general information, (2) physical facilities,
(3) finance, (4) staff composition, and (5) library facilities.

Under general information, questions regarding schools'
name, address, type of management, aided or non-aided were
asked. Under 'physical facilities', questions related to
schools' location, building, classroom, different rooms
etc. were asked. Under 'finance' information related to
different heads of school expenditure was sought. The
questions related to number of teachers, their qualifica-
tion, experience, pay scale and extra duties were asked
under 'staff composition'. The information related to

library, librarian, number of books etc. were asked under
the subsection 'library facilities'.

Evaluative Criteria and Scoring : The scoring
procedure and evaluative criteria for each facility are
given below.

A. Physical Facilities : The procedure of
scoring and evaluation of physical facilities are shown in
Table 3.3. Marks from 0 to 3 per item were given depending
upon its quantitative and qualitative condition. Maximum
possible score was 33 and minimum 6. The obtained scores
(per school) were furthere classified into five categories
ranging from'very poor' to 'very good' (Table 3.3).

B. Finance : The expenditure per item of
the school was considered as scores and no further evaluation
was done.

C. Staff Composition : The procedure of
scoring and evaluation of staff composition are shown in
Table 3.4. Scores from 1 to 4 per item were given depending
upon the qualification and experience of the staff. Maximum
possible score was 7 and minimum 2. The obtained scores
(mean number of teachers per school) were further classified
into five categories ranging from 'very poor' to 'very good'.
(Table 3.5)

Table 3.3   Scoring and Evaluation Procedure for
              Physical Facilities

Items	Scores	Maximum possible scores
A. Scoring		
1. Location		2
a. Natural	2	
b. Congusted	1	
2. Transportation if yes,	1	1
3. Building		3
A. Condition,		
i. well maintained	3	
ii. moderately maintained	2	
iii. poorly maintained	1	
B. Compound,		3
i. Good Compound	3	
ii. Bad compound	2	
iii. No compound	0	
C. Play ground, if yes	1	1
D. Ventilation		3
i. Good ventilation	3	
ii. Moderate ventilation	2	
iii. Poor ventilation	1	
E. Separate Room for		10
i. Head Master	1	
ii. Staff Room	1	
iii. Office	1	
iv. Store room	1	
v. Audio-Visual Room	1	

Table 3.3 (continued)

Items	Scores	Maximum possible scores
vi. Museum	1	
vii. Indoor Games Room	1	
viii. Library	1	
ix. Auditorium	1	
x. Canteen	1	
F. Class Room		3
I. Size of class room		
1. More than 8' per student	3	
2. 6' - 7' per student	2	
3. Less than 5' per student	1	
II. Sitting Arrangement		3
1. Chairs	3	
2. Benches	2	
3. Dari	1	
III. Furniture		1
1. Sufficient	1	
IV. Students per class		3
1. less than 35	3	
2. 36 to 40	2	
3. 41 and more	1	
Total		33

B. Evaluation

Score	Evaluation
Less than 9	Very poor
10 to 14	Poor
15 to 20	Fair
21 to 26	Good
27 to 33	Very good

Table 3.4   Scoring and Evaluation Procedure, for
             Staff Composition

Items	Scores	Maximum possible scores
A. Scoring		
1. Qualification of the staff		4
i. S.S.C.	1	
ii. P.T.C.	2	
iii. B.A.	2	
iv. B.A.,B.Ed.	3	
v. M.A.,B.Ed.,M.Ed.	4	
2. Experience of the Staff		3
i. Upto 5 years	1	
ii. 6 to 10 years	2	
iii. More than 10 Years	3	
Total		7

B. Evaluation

Score	Evaluation
Upto 2.99	Very poor
3 to 3.99	Poor
4 to 4.99	Fair
5 to 5.99	Good
6 to 7	Very Good

Table 3.5   Scoring and Evaluation Procedure for
             Library Facilities

Items	Scores	Maximum possible scores
A. Scoring		
1. Library	1	1
2. Librarian		2
i. Full Time Librarian	2	
ii. Teacher as librarian	1	
3. Timings		2
i. Morning or Evening	2	
ii. Recess	2	
iii. No fixed time	1	
4. Reading Room	1	1
5. Number of Books		4
Less than 200	1	
201 to 500	2	
501 to 1000	3	
1001 and above	4	
6. Books per student		5
Less than 1	1	
1 to 2	2	
3 to 4	3	
5 to 6	4	
7 and above	5	
	Total	15

B. Evaluation

Score	Evaluation
0	Very Poor
1 to 4	Poor
5 to 8	Fair
9 to 12	Good
13 and above	Very Good

D. **Library Facilities** :   The procedure of scoring
and evaluation of the library facilities are shown in Table
3.5. Scores from 0 to 5 per item were given depending upon
the presence of library, librarian, and number of books etc.
Maximum possible score was 15 and minimum 0. The obtained
scores (per school) were further classified into five cate-
gories ranging from 'very poor' to 'very good' (Table 3.5).

3.2320   Evaluative Criteria (Teacher) :

The tool, 'Evaluative criteria (teacher)' was
prepared by the investigator. It was administered to the
teachers to collect the information regarding various school
inputs like (1) teaching methods, (2) instructional materials,
(3) co-curricular activities, and (4) assessment scheme.

Construction of the Tool :   On the basis of
the 'The Evaluative criteria for Secondary Schools',
prepared by Rawat (1970) and discussions with the teachers
of the elementary schools, the investigator prepared several
items covering school inputs such as teaching methods,
instructional materials, co-curricular activities, and
assessment scheme. The questions asked were either in multi-
ple choice or open-ended form. The items were finalised with
the help of five judges. The final form of the tool is given
in Appendix A-2.

Description of the Tool : The tool'Evalua-
tive criteria (teacher)' has four subsections like, (1)
teaching methods, (2) instructional materials, (3) co-curri-
cular activities, and (4) assessment scheme.

Under teaching methods, questions related to various
methods used by teachers, like, discussion, dramatization
etc. were asked. Under instructional materials, information
related to audio-visual aids and other communication equip-
ments was asked. The questions related to games and sports,
cultural programme, literary activities, scouting and
student union were asked under co-curricular activities.
The information regarding examination, type of questions
asked in the examination, and content of the progress report
were asked under the subsection assessment scheme.

Scoring and Evaluative Criteria : The scoring procedure
and evaluative criteria for each facility are given below.

A. Teaching Methods :' The procedure of scoring
and evaluation of the teaching methods are shown in table
No.3.6. Marks from 0 to 3 per item were given depending upon
how frequently a teaching method was used by the teacher.
There were thirteen teaching methods included in the

Table 3.6   Scoring and Evaluation Procedure for

Teaching Methods

Items	Scores	Maximum possible scores
A. Scoring		
1. Method used		
i. Generally	3	
ii. Frequently	2	
iii. Less Frequently	1	
iv. Not at all	0	
(Total 13 methods)	Total	39

B. Evaluation

Score	Evaluation
Upto 6.4	Not at all
6.5 to 19.4	Less Frequently
19.5 to 32.4	Frequently
32.5 to 39	Generally

evaluative criteria. Thus, maximum possible score was 39
(13x3). The obtained scores (per school) were further
classified into four categories ranging from 'not at all'
used to 'generally' used.

B. Instructional Materials : The procedure of
scoring and evaluation of instructional materials are given
in Table 3.7. Score of one per item was given. Maximum
possible score was 14. The obtained scores (per school)
were further classified into five categories ranging from
'very poor' to 'very good'.

C. Co-Curricular Activities : The procedure of
scoring and evaluation of co-curricular activities are shown
in Table 3.8. Marks from 0 to 3 per item were given depending
upon the time alloted to each activity. Maximum possible
score was 17 and minimum zero. Obtained scores per school,
were further classified into five categories ranging from
'very poor' to 'very good'.

D. Assessment Scheme : The procedure of scoring
and evaluation of assessment scheme are shown in Table 3.9.
Marks from 0 to 3 per item were given depending upon the
frequency of examinations conducted, types of questions

Table 3.7   Scoring and Evaluation Procedure for
             Instructional Materials

Item	Scores	Maximum possible Scores
A. Scoring		
1. Audio-Visual Aids		6
i. Charts	1	
ii. Pictures	1	
iii. Models	1	
iv. Projector	1	
v. Radio	1	
vi. Tape Recorder	1	
2. Equipment for Cultural Programme		8
i. Harmonium	1	
ii. Table	1	
iii. Flute	1	
iv. Dandia	1	
v. Manjira	1	
vi. Khanjri	1	
vii. Dress-ornaments	1	
viii. Loud speaker	1	
Total		14

B. Evaluation

Score	Evaluation
Less than 3	Very poor
3 to 5	Poor
6 to 8	Fair
9 to 11	Good
12 to 14	Very Good

Table 3.8   Scoring and Evaluation Procedure for
            Co-Curricular Activities

Items	Scores	Maximum possible scores
A. Scoring		
I. (1) Games, (2) Painting,		
(3) Gardening (4) Literary		
Activities and (5) Scouting		(5x2) 10
i. More than 5 hours a week	2	
ii. Less than 5 hours a week	1	
II. (1) Cultural Programme, and		
(2) Excursion		(3x2) 6
i. More than twice a year	3	
ii. Twice a year	2	
iii. Once a year	1	
III. Student Union	1	1
	Total	17

B. Evaluation

Score	Evaluation
Less than 6	Very poor
6 to 8	Poor
9 to 11	Fair
12 to 14	Good
15 to 17	Very Good

Table 3.9   Scoring and Evaluation Procedure for
              Assessment Scheme

Items	Scores	Maximum possible scores
A. Scoring.		
1. Examination held		3
a. Weekly, fortnightly, monthly	1	
b. Quarterly, half yearly, yearly (only one score to be considered)	1	
2. Types of questions asked		3
a. Essay type	1	
b. Objective type	1	
c. Multiple type	1	
3. Progress Report		3
a. Reporting		
i. Monthly	3	
ii. Half yearly or quarterly	2	
iii. Yearly (only one score)	1	
b. Personal data		3
i. Intensive	3	
ii. Detailed	2	
iii. Short	1	
c. Content of the Progress Report		12
i. One score for each item		
	Total	24

B. Evaluation

Scores	Evaluation
Less than 9	Very Poor
9 to 12	Poor
13 to 16	Fair
17 to 20	Good
21 to 24	Very Good

asked and content of the progress report. Maximum possible score was 24 and minimum 1. The obtained scores per school, were further classified into five categories ranging from 'very poor', to 'very good'.

3.2330 Organizational Climate Description Questionnaire(OCDQ):

The Organizational Climate Description Question-naire was given to the principals and teachers to measure the 'organizational climate' of the schools. This question-naire was prepared by Halpin and Croft (1963) and adapted by Sharma (1973). The Gujarati version of the tool was used in the present study.

Selection and Description of the Tool : The Indian version of OCDQ was selected in order to measure the organizational climate of the elementary schools. It is composed of 64 Likert-type items. The questionnaire is given in a group situation. It requires 30 minutes for administration.

The scale against which the respondent indicates the extent to each statement characterises his school, is identified by four categories: (1) Rarely occurs; (2) Some-times occurs; (3) Often occurs; and (4) Very frequently occurs.

It consists of eight factors. They are -

1. 'disengagement' having ten items;

2. 'hindrance' consists of six items;

3. 'esprit' having ten items;

4. 'intimacy' consists of seven items;

5. 'aloofness' consists of nine items;

6. 'production emphasis' consists of seven items;

7. 'thrust' having nine items; and

8. 'consideration' having six items.

The tool is given in appendix A-3..

Scoring : The procedure of measuring the organi-
zational climate is as follows :

1 to 4 scores are given from 'rarely occurs' to 'very
frequently occurs' respectively. From these raw scores,
mean and standard deviation for each sub-test are calculated.
By applying the formula 10 $(\frac{X-M}{SD})$ + 50 (with an arbitrary
Mean of 50 and Standard deviation of 10)[*] raw scores are
converted into standard scores, which give 8 standard
scores for each respondent and they give six types of climates,
i.e. controlled, familiar, closed, paternal, autonomous and
open.

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[*] Halpin, A.W., Theory and Research in Administration. The
Macmillan Co.,1966.

3.2340 Leadership Behaviour Description Questionnaire(LBDQ):

Leadership Behaviour Description Questionnaire was given to the teachers to measure the 'leadership behaviour' of the principal. This questionnaire was prepared by Halpin and Winer (1952) and adapted by Darji (1975). The Gujarati version of the tool was used in the present study.

Selection and Description of the Tool : The Indian version of LBDQ was selected in order to measure the Leadership Behaviour of the elementary schools. The LBDQ is composed of short, descriptive statements of ways in which leaders may behave. There are thirty Likert-type items with five adverbs: always, often, occasionally, seldom or never. The tool is given in Appendix A-4.

Scoring : Each one of the Keys to the dimensions contains 15 items, and each item is scored on a scale from 4 to zero. Total 30 items are there. There are two dimensions of 'Leader Behaviour Description Questionnaire' - (1) Initiating Structure consists of 15 items, and (2) Consideration consists of 15 items.

3.2350 **Desai-Bhatt Group Intelligence Test :**

This test was administered to the students for measuring their intelligence. This was constructed and standardized by K.G. Desai and C. Bhatt in the year 1968.

Selection and Description of the Tool : The tool was selected keeping in view three points : it is a standardized tool, is a group test, and is in Gujarati, which is a local language. The tool consists of hundred and ten multiple choice questions. The first ten items are given as examples. The test has a separate answer sheet. The completion of the test requires forty minutes. Reliability of the test ranges from .84 to .93 and validity from .72 to .88. The tool is given in Appendix A-5.

Scoring : All correct answers carry one mark each. From the total score, I.Q. is obtained by referring to the table given in the manual of Desai-Bhatt Group Intelligence Test.

3.2360 **Achievement Test :**

Achievement test was administered to the students for measuring their academic performance. The test was constructed by the investigator.

Selection and Description of the Tool : The
items of the tool were selected from the different stand-
ardized tests prepared for the seventh standard. The test
contains objective type questions on five subjects - these
are, geography, history, science, Gujarati and maths based
on the course of seven standard. The tool was in Gujarati
language. No time limit was given for the test.

Sources of the tool are : Geography : five questions
were selected from the standardized tool prepared by Patel
(1977). History : Five questions were selected from the
standardized tool prepared by Patel (1977). Science : Ten
items were prepared by the investigator. Gujarati: Ten items
were selected from the standardized test prepared by Jani
(1970). Maths : Ten items were selected from the standardized
test prepared by Chauhan (1976). The tool is given in
appendix A-6.

Scoring : For each correct answer either one,
two or three marks were given. A total of fifty marks were
alloted for the test, out of which five marks were for
geography ; five for history; ten for science, ten for
Gujarati and twenty for maths.

Socio-Economic Status: In order to know the socio-economic status of the students, questions regarding father's education, occupation and income were asked in the personal data included in the achievement test. The obtained information was further categorized according to Kuppuswamy's scale (1962), in terms of SES I, II, III and IV.

3.2370 Interview Schedule :

A structured interview schedule was prepared by the investigator to interview the parents of the students.

Construction of the Tool : The investigator prepared some questions to get the information about the different aspects of the families. These questions were given to five judges. After taking their suggestions, certain modifications were made and the tool was finalized as shown in Appendix A-7.

Description of the Tool : The structured interview schedule consists of twentysix questions. These questions are related to the bio-data of the family; the reasons for sending the children to private or public schools; parent's opinion regarding two systems of schools; difficulty faced by the parents for their children's education; the annual

result and parent's occupational aspiration regarding their children. The Interview Schedule is given in Appendix A-7.

Scoring :   The data were scored qualitatively.

3.2400 Data Collection :

The process of data collection is reported under : principals, teachers, students and parents.

3.2410 Principals :

The process of administering the tools to the principals is given under : prearrangement and administration of the tools.

Prearrangement :   The list of the private and public schools was obtained from the office of the Baroda Municipal Corporation. Twenty-five per cent of the schools from each system were selected from the obtained list. The principals of the selected schools were contacted to obtain prior permission to do the research work. They were informed about the nature and purpose of the work. They agreed to cooperate and to furnish the information needed by the investigator.

Administration of the Tools : The investigator
gave two tools : 'Evaluative Criteria (principal)' and
'organizational Climate Description Questionnaire' to the
principal. She explained to the principal as to how the
information was to be furnished. The filled questionnaires
from the principal were collected after few days. Same pro-
cedure was followed for all the forty-two principals. Thus,
the data were collected from the principals.

3.2420 Teachers :

The process of administering the tools to the
teachers is given under: prearrangement and administration
of the tools.

Prearrangement : The principal introduced the
investigator to the teachers and asked the teachers to
co-operate with the investigator. All the teachers were
asked to assemble in the staff room during recess time. The
investigator explained the nature and purpose of the work
to the teachers.

Administration of the Tools : The investigator
gave three tools to the teachers: 'Evaluative Criteria
(teacher)'; 'Organizational Climate Description Questionnaire',

and 'Leadership Behaviour Description Questionnaire'. She explained to the teachers as to how the questionnaires were to be answered. After few days, the filled questionnaires were collected. Same procedure was followed for all the 294 teachers. Thus, the data were collected from the teachers.

3.2430   Students :

The process of administering the tests to the students is given under : intelligence test and achievement test.

3.2431   Intelligence Test :

The process of administration of the 'Desai-Bhatt Group Intelligence Test' is given under : prearrangement and administration of the tool.

Prearrangement :   The investigator contacted the class teacher of the seventh standard and explained to him as to how the test would be given to the students. The list of all the students was obtained from the class teacher, and thirty students from that list were selected at random. Sitting arrangement for these students was made. Test copies along with the answer sheets, stop watch, chalk, and duster etc. were kept ready.

<u>Administration of the Test</u> :   The teacher introduced the investigator to the students and asked them to get ready for the test. Then, the teacher left the classroom.

The investigator explained to the students the purpose of giving the test. They were instructed to not to open the test-booklets till the further instructions. Along with the help of an associate the investigator distributed the booklets and answer-sheets. They were asked to write their names and other personal data on the answer-sheets. They were instructed to (1) write an answer-sheets only, (2) to encircle the 'number' of correct choice. One minute for solving the ten trial questions was given to the students. After that the investigator solved each trial question and explained it to the students. It was made sure that the students understood the procedure fully. Then they were finally instructed to start answering the test questions from question No.11, and to complete it in forty minutes. Then the test was started, and after forty minutes, the booklets and answer-sheets were collected. The same procedure was followed for all the 600 students. Thus, the data about intelligence were collected.

3.2432   <u>Achievement Test</u> :   The process of admini-
stration of achievement test is given under : prearrangement
and administration of the tool.

<u>Prearrangement</u> :   The students, appeared
for intelligence test were also called for achievement test.
The copies of the test were kept ready.

<u>Administration of the Tool</u> :   The purpose
of the test was explained to the students. They were instruc-
ted that, the achievement test was based on the portion
taught to them, and that they had to encircle the correct
answer, and they can proceed at their own speed. The test
booklets were distributed. They were asked to fill in
personal data and start answering the questions. The test-
booklets were collected after the completion of the test.
The same procedure was followed for all the 600 students.
Thus, the data about achievement were collected.

3.2440 <u>Parents</u> :

The process of interviewing the parents is given
under : prearrangement and interview.

<u>Prearrangement</u> :   Ten schools were selected
at random, five from each system of schools. From each school,

ten students were contacted. The investigator asked the student to inform his parents about her visit.

Interview : The investigator along with the interview schedule visited the family. She introduced herself to the parent. In the beginning she had general talk, then she explained them the purpose of the interview. The investigator then started asking questions and the responses were recorded. The same procedure was followed for all the hundred families. Thus, the data from the parents were collected.

This way the data were collected from all the sources.

3.2500 Scoring :

The data were analysed quantitatively and wherever necessary, were analysed qualitiatively also. Scores were tabulated and organized for statistical analysis.

3.2600 Statistical Analysis :

For comparing the achievement, analysis of covariance was employed. SES and IQ scores were treated as covariates and achievement scores as criterion variable.

For the remaining data, frequencies, percentages, or means were calculated.

The problem and procedure of the study are dealt in the present chapter. The obtained results and their interpretation are taken up in the next chapter.