

CHAPTER III

RESEARCH METHODOLOGY

3.0 INTRODUCTION

The methodology chapter of the study explains in-depth knowledge about the kind of methodology followed by the researcher for the research study. It gives directions and suggestions for other researchers to adopt it. The significant aspects of the methodology chapter, such as research design, sample, tools, type of analysis, and research method, are derived from the review of the literature chapter. This chapter includes research design, selection of school, Programme details, and development of Programme, Implementation of program, tool, and techniques for data collection, tools construction, and phases of data collection, data analysis & interpretation, units of data analysis, the procedure of data analysis, establishing validity and reliability of Data and establishing the credibility of the program.

3.1 RESEARCH QUESTIONS

Thus, the following profound research questions emerge are:

- 1** What is the status of Physical Facilities of Ashram Schools for Scheduled Tribes in Gujarat?
- 2** What is the status of the Human Resources of Ashram Schools for Scheduled Tribes in Gujarat?
- 3** What is the status of Enrollment and Dropouts of Ashram Schools for Scheduled Tribes in Gujarat?
- 4** How do Classroom Transactions take place in Ashram Schools for Scheduled Tribes in Gujarat?
- 5** What is the status of the Human Resources of Ashram Schools for Scheduled Tribes in Gujarat?
- 6** What are the problems for students, Teachers, and Administrators of Ashram Schools for Scheduled Tribes in Gujarat?
- 7** What are the suggestions of Students, Teachers, and administrators to improve the functions of Ashram Schools for Scheduled Tribes in Gujarat?

3.2 STATEMENT OF THE PROBLEM

A Study of Ashram Schools for Scheduled Tribes in Gujarat

3.3 OBJECTIVES OF THE STUDY

The following objectives are formulated for the proposed study:

- 1 To study Physical Facilities of Ashram Schools for Scheduled Tribes in Gujarat.
- 2 To study the Human Resources of Ashram Schools for Scheduled Tribes in Gujarat.
- 3 To study Enrollment and Dropouts from 2006 to 2013 of Ashram Schools for Scheduled Tribes in Gujarat.
- 4 To study the classroom transactions in Ashram Schools for Scheduled Tribes in Gujarat.
- 5 To study academic achievements of students of Ashram Schools for Scheduled Tribes in Gujarat.
- 6 To study students, Teachers, and Administrators of Ashram Schools for Scheduled Tribes in Gujarat.
- 7 To study suggestions of Students, Teachers, and Administrators for improvement of functions of Ashram Schools for Scheduled Tribes in Gujarat.

3.4 EXPLANATION OF THE TERMS

- **Scheduled Tribe:** The ST in the Indian context are the tribes or the communities or part of groups within tribe communities listed in Schedule V appended to the constitution of India, which the president of India may specify by public notification under the provision of Article 342 of the constitution.
- **Ashram School:** Ashram Schools are those elite schools that came into existence under the prescribed scheme of availing grants by the government in 1951 wherein tribal children are provided free lodging and boarding.
- **Physical Facilities:** It includes the infrastructural facilities, like sanitation facilities, housing facilities, the academic infrastructure required, agricultural land and equipment, and medical aid.
- **Human Resources:** It includes teachers, students, trustees, and principals
- **Functions:** Functions in Ashram schools are linked with the teaching-learning process, the residential schedule, administrative functions, admission process, and maintenance of quality in food, housing, and campus.
- **Administrators:** It includes public trust members approved by law and the principal of concern Ashram school for Scheduled Tribes.

3.5 OPERATIONALIZATION OF THE TERMS

- **Academic Achievement:** Academic achievement refers to the score obtained by the students in different subjects of Ashram school for Scheduled Tribes on the test conducted by Zilla Panchayat Shikshan Samitee of the concerned district.
- **Enrolment:** It is the number of students admitted to a particular class in a year.
- **Drop out:** It is the number of students of a particular class who discontinue school before completing elementary education as informed by the principal.

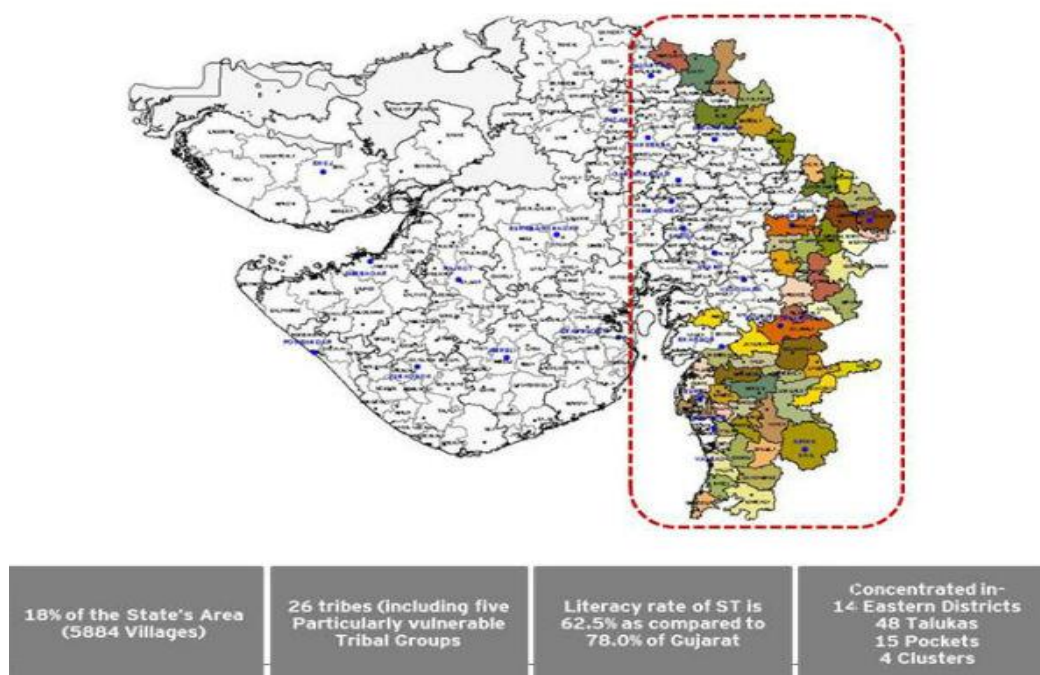
3.6 RESEARCH DESIGN:

The present study is quantitative and a descriptive survey method was adopted to look into the nature of the study.

3.7 POPULATION AND SAMPLE OF THE RESEARCH STUDY

Nachmias (1981) defined a population as a group of people, organizations, houses, records, legislators, and so on, depending on the research purpose. In the present research, Gujarat state is considered a locale, and 375 Ashram schools are belonging to ten tribal population-dominated districts of Gujarat state. All students, teachers, and administrators constitute the population of the present research.

Figure: 3.1 Administrative Map of Tribal Population of Gujarat



Source:- Tribal Development Department, Govt. of Gujarat (as per Census 2011).

*Note – Color indicates Tribal Talukas

Gujarat has well developed agricultural sector as well as a somewhat developed industrial base. In fact, along with Maharashtra, its neighboring state, Gujarat is one of the frontline states in industrial development and capital investment. The educational growth in Gujarat is also steady. Vadodara, Ahmedabad, Kheda, Rajkot, and Jamnagar are places where economic and educational growth occurs. However, at the same time, it has been noted that Gujarat has a considerable size of STs and Other Backward Castes in the total population. Out of the total population of Gujarat, the population of tribal is almost 14.8% (census-2011). SCs and Other Backward Castes are spread over almost the whole state, while tribal districts are more concentrated in districts like Sabarkantha, Panchmahal, Vadodara, Bharuch, Surat, the Dang, etc. Valsad. At present Dang is the only district having 94.6% of the tribal population (census-2011). In the following table, information was provided regarding population and the percentage of scheduled tribes. The Surat district was divided into another district, Tapi, which administratively started its functioning in 2014.

Table No: 3.1 District Wise ST Population in Gujarat State

DISTRICTWISE SCHEDULED TRIBES POPULATION BY RESIDENCE AND PERCENTAGE TO TOTAL POPULATION, GUJARAT STATE, CENSUS – 2011					
Sr. No	State/District	Rural	Urban	Total	Percentage of ST Population to Total Population
1	2	3	4	5	6
	GUJARAT	8021848	895326	8917174	14.8
1	Kachchh	14287	9941	24228	1.2
2	Banas Kantha	271055	13100	284155	9.1
3	Patan	6182	7121	13303	1.0
4	Mahesana	3144	6248	9392	0.5
5	Sabar Kantha	520203	21953	542156	22.3
6	Gandhinagar	2583	15621	18204	1.3
7	Ahmadabad	16749	72389	89138	1.2
8	Surendranagar	19313	2140	21453	1.2
9	Rajkot	8407	15610	24017	0.6

10	Jamnagar	16492	7695	24187	1.1
11	Porbandar	9945	3094	13039	2.2
12	Junagadh	37633	17938	55571	2.0
13	Amreli	4140	3182	7322	0.5
14	Bhavnagar	3408	5702	9110	0.3
15	Anand	9884	14940	24824	1.2
16	Kheda	27275	13061	40336	1.8
17	Panch Mahals	697576	24028	721604	30.2
18	Dohad	1522008	58842	1580850	74.3
19	Vadodara	1040599	109302	1149901	27.6
20	Narmada	461391	20001	481392	81.6
21	Bharuch	431980	56214	488194	31.5
22	The Dangs	200138	15935	216073	94.6
23	Navsari	571812	67847	639659	48.1
24	Valsad	785002	117792	902794	52.9
25	Surat	683413	173539	856952	14.1
26	Tapi	657229	22091	679320	84.2

Source: Office of Registrar General & Census Commissioner, India.

Investment in education for the disadvantaged sections will help in enabling them to cross the social, psychological, and economic barriers under which they have been laboring for centuries. To spread education among them, a program of free and compulsory education has been vigorously implemented to increase educational opportunities to improve their social and economic conditions. In addition to the particular financial allocations for the education of the tribal children, a more significant number of Ashram Schools for tribal was established.

Table No: 3.2 Number of Ashram Schools in Gujarat

Sr. No.	Name of District	No. of Ashram Schools for STs	No. of Ashram Schools for SCs	No. of Ashram Schools for SEBC
1	Banaskantha	22	06	10
2	Ahmedabad	01	12	11
3	Kheda	01	09	21
4	Surendranagar	01	03	09

5	Junagarh	03	08	08
6	Porbandar	01	-	01
7	Jamnagar	01	01	11
8	Patan	01	04	15
9	Sabarkantha	46	08	26
10	Panchmahal	36	06	13
11	Dahod	70	03	14
12	Vadodara	38	01	02
13	Narmada	46	-	-
14	Bharuch	08	-	01
15	Surat	36	-	01
16	Valsad	50	-	-
17	Navsari	22	-	-
18	The Dang	12	-	-
19	Amreli	-	01	03
20	Anand	-	02	05
21	Bhavnagar	-	05	07
22	Gandhinagar	-	05	12
23	Kutch	-	03	07
24	Mehsana	-	06	04
25	Rajkot	-	04	06
26	Tapi	57	-	-
	Total	452	87	187

*Source - Dept. of Tribal Development, and, Dept. of Social Justice and
Empowerment, Gujarat State 2011-12*

3.8 SAMPLE OF THE STUDY

Out of the population, 10% of Ashram Schools are from the tribal population-dominated district, the district which has 25% or more than 25% Scheduled Tribe (ST) population, (Framework for Implementation SSA, 2002), i.e. 40 schools were drawn based on Proportionate Random Sampling by using lottery method. (Appendix-VII)

**Table No: 3.3 District Wise ST Population and Number of ST Ashram Schools
in Tribal Population Dominated District of Gujarat State**

Sr. No	Name of Districts	% of STs to the total population of the State/District	District-wise % of total ST population	Number of Ashram Schools	Number of Selected Schools
	Gujarat	14.8	100	452	-
1	Panchmahal	27.5	7.4	36	4
2	Dahod	72.3	15.8	70	7
3	Vadodara	26.6	12.9	38	4
4	Narmada	78.1	5.4	46	5
5	Bharuch	32.4	5.9	08	1
6	Surat	28.2	18.8	36	4
7	Valsad	54.8	10.3	50	5
8	Navsari	48.1	7.9	22	2
9	The Dangs	93.8	2.3	12	2
10	Tapi	-	-	57	6
	Total	-	86.70	375	40

According to table 3.3, a Total of 40 Ashram schools were selected out of which 4 Ashram Schools from Panchmahal, 7 Ashram Schools from Dahod, 4 Ashram Schools from Vadodara, 5 Ashram Schools from Narmada, 1 Ashram Schools from Bharuch, 4 Ashram Schools from Surat, 5 Ashram Schools from Valsad, 2 Ashram Schools from Navsari, 2 Ashram Schools from The Dangs and 6 Ashram Schools from Tapi district.

Out of present selected Ashram Schools

- All the teachers were selected to study the problems faced by them and also to study their suggestions.
- Four pupils' (two high achievers and two low achievers) from classes V, VI, and VII, and two administrators (one member of the trust and the Principals), of each Ashram School, were drawn based on Random Sampling to study the problems faced by them and also to study their suggestions.
- All the pupils, teachers, and principals were selected to study their Profiles.
- All the pupils of Ashram Schools were selected to study Academic Achievement.

- The teachers are teaching the six major subjects, i.e., 1. Science, 2. Mathematics, 3. Social Science, 4. English, 5. Gujarati and 6. Hindi was selected randomly to observe the class-rooms transactions. One class was observed from each Ashram School randomly which could cover all the above subjects.

Table No: 3.4 District Wise School, Trustees, Principals, Teachers, and pupils sample of the research study

Sr. No.	District	School	Trustee	Principals	Teachers	Pupils'
1	Panchmahal	4	4	4	24	48
2	Dahod	7	7	7	42	84
3	Vadodara	4	4	4	24	48
4	Narmada	5	5	5	30	60
5	Bharuch	1	1	1	6	12
6	Surat	4	4	4	24	48
7	Valsad	5	5	5	30	60
8	Navsari	2	2	2	12	24
9	The Dangs	2	2	2	12	24
10	Tapi	6	6	6	36	72
	Total	40	40	40	240	480

3.9 TOOLS FOR DATA COLLECTION

Following tools were prepared for the data collection. The tools are explained below

1. Information Schedule

The researcher prepared the information schedule to study the status of school location particulars and school-related other essential information. A total of 15 components were there on which information was sought. With the help of the following components, the tool was prepared: (Appendix-I)

Table No: 3.5 Components of Information schedule for Ashram School

Major Areas	Components	No. of Statements
School	School Location Particulars	4
	School Particulars	11
	Total	15

2. Observation Schedule

The observation schedule was prepared by the researcher to study the Profile of the human components and to collect information regarding academic achievements, dropouts rate, and enrollment rate of Ashram Schools for

Scheduled Tribes in Gujarat. With the help of the following components, the tool was prepared: (**Appendix-II**)

Table No: 3.6 Components of Observation Schedule for Ashram School

Major Areas	Components	No. of Statements
School Environment	Availability of School Infrastructure	2
	Quality of School Infrastructure	6
	Teacher Profile	*Depends on School
	Training/In-service programs	
	Student Enrollment	7
	Student Attendance	7
	Academic Achievement	7
	School Registers	13
Teaching-Learning Process	Academic Planning	2
	Classroom Teaching	7
	Activities during Class	3
	Total	53

3. Interview Schedule for Students

The purpose of the Students' interview was to probe further into the functioning of Ashram School and their views regarding how the teaching-learning process is going on and views residential reading facilities.

In the present study, the researcher designed a structured interview schedule for the Students. These interview schedules were prepared with the help of steps given by Turney and Robb (1971). The first step in preparing the interview schedule was to decide exactly what data the interview should yield. For this researcher thought that to verify the data collected through the teacher's questionnaire and for more depth data regarding how the teaching-learning process is going on and views residential reading facilities., the researcher prepared an interview schedule for Students.

In the **second step**, the researcher decided whether a structured or unstructured procedure would be more helpful. Here researcher prepared a structured interview schedule because some questions needed more clarity and in-depth interrogation, so the researcher thought to go with a structured interview procedure.

In the **third step** decision about how the results of the interview should be recorded was taken. Here, the researcher decided to note down the responses simultaneously with the interview, and for using this technique successfully, the investigator practiced it. Along with this researcher made a rough outline of the interview

schedule. Questions on the subtopic were grouped, and finally, there were twenty-seven questions put. The length of the interview schedule was taken into consideration, and more general questions were kept first, and detailed and specific questions at the end of the interview schedule. A copy of the interview schedule was shown to the guide, and after the discussion first draft of the interview, the schedule was finalized.

In the fourth step, a pilot study was carried out over the few other Students, and this tried-out session revealed essential issues, like the length of questions and problems in noting down the responses; those were rectified before actual proceeding. In this way, the tool–interview schedule was prepared, and in it, there were nineteen questions. **(Appendix-III)** The nineteen questions were categorized area-wise as under.

Table No: 3.7 Dimensions of Interview Schedule for Students

No.	Component	Total Ques.
1.	Personal Information	9
2.	Satisfaction	4
3.	Teacher's Attitude in Teaching and Support	4
4.	Suggestions	2
	Total	19

4. Questionnaire for Teachers

To prepare the questionnaire for teachers of Ashram Schools, the researcher has followed the steps mentioned by Mouly (1970) in his book "The Science of Educational Research". The **first step** in preparing the questionnaire is to attain a thorough grasp of the field, the study's objectives, and the nature of the data needed. In the present study, the investigator examined the status of Ashram schools in Gujarat concerning various components. Working of Ashram Schools in Tribal Areas, 44th report published by Ministry of Tribal Affairs (2013-14) and some other books and related articles to have in-depth knowledge about Ashram Schools. The researcher has gone through the review of related literature, which showed some questionnaires and opinionnaires, which can help the researcher form a new one. Kumar (2004), Sedwal and Kamal (2008), Sahu (2014), Biswal (2014), and Chowdhury and Banerjee (2013) had made questionnaires and opinionnaires for collecting data from teachers regarding the working of Ashram School and persons

involved in its functioning. Some other tools covered the research topic and a few questionnaires from which the researcher took help to form a new one.

In the second step of preparation of the questionnaire, an unstructured interview was followed, and visited Haripura Ashram School, Zhagadiya Taluka of Bharuch District, and met some other people familiar with the field. Here researcher, having some ideas in mind, met the teachers of Ashram Schools and discussed the functioning of Ashram Schools. The researcher discussed essential topics like Ashram Schools' objectives, infrastructure, human resources, student achievement enrollment and dropout, problems, and teachers' suggestions. The researcher noted down the important points.

In the **third step**, the investigator realized that there is a limit to the demands the researcher made of the respondent and that, consequently, the researcher delimited his study to the point that the researcher is not expecting too much and yet can get a reasonable answer to his problem. Thus, the researcher eliminated all questions about data that cannot be found readily and often more accurately from other sources. In the present study, the researcher took care of this point, and some of the data were collected directly from Ashram School officers.

In the **fourth step**, the length of the questionnaire was considered, and some of the items were deleted. Further, it was examined that every item must serve a definite purpose or face elimination.

In the **fifth step**, the researcher made the final outline of the questionnaire. Questions on the sub-topic were grouped, and finally, under the head of seven components, thirty-three questions were put. **(Appendix-IV)** The thirty-three questions were categorized area-wise as under.

Table No: 3.8 Dimensions of Questionnaire for Teachers

No.	Component	Total Ques.
1.	Personal Information	11
2.	Opinion about Ashram Shala	4
3.	Support from Ashram Shala Adhikari	4
4.	Challenges in Ashram Shala	4
5.	Support from School Teaching & Non-teaching Staff	3
6.	Classroom Experience	5
7.	Suggestions	2
	Total	33

5. Questionnaire for Principals

To prepare the questionnaire for principals of Ashram Schools, the researcher has followed the steps mentioned by Mouly (1970) in his book "The Science of Educational Research". The first step in preparing the questionnaire is to attain a thorough grasp of the field, the study's objectives, and the nature of the data needed. In the present study, the investigator examined the status of Ashram schools in Gujarat concerning various components. Working of Ashram Schools in Tribal Areas, 44th report published by Ministry of Tribal Affairs (2013-14) and some other books and related articles to have in-depth knowledge about Ashram Schools. The researcher has gone through the review of related literature, which showed some questionnaires, which can help the researcher form a new one. Kumar (2004), Sedwal and Kamal (2008), Sahu (2014), Biswal (2014), and Chowdhury and Banerjee (2013) had made questionnaires and opinionnaires for collecting data from principals regarding the working of Ashram School and persons involved in its functioning. Some other tools covered the research topic and a few questionnaires from which the researcher took help to form a new one.

In the second step of preparation of the questionnaire, the unstructured interview was followed, and visited Haripura Ashram School, Zhagadiya Taluka of Bharuch District, and met some other people familiar with the field. Here researcher, having some ideas in mind, met the principals of Ashram Schools and discussed the functioning of Ashram Schools. The researcher discussed essential topics like Ashram Schools' objectives, infrastructure, human resources, student achievement enrollment and dropout, problems, and teachers' suggestions. The researcher noted down the important points.

In the **third step**, the investigator realized that there is a limit to the demands the researcher made of the respondent and that, consequently, the researcher delimited his study to the point that the researcher is not expecting too much and yet can get a reasonable answer to his problem. Thus, the researcher eliminated all questions about data that cannot be found readily and often more accurately from other sources. In the present study, the researcher took care of this point, and some of the data were collected directly from Ashram School officers.

In the **fourth step**, the length of the questionnaire was considered, and some of the items were deleted. Further, it was examined that every item must serve a definite purpose or face elimination.

In the **fifth step**, the researcher made the final outline of the questionnaire. Questions on the sub-topic were grouped, and finally, under the head of five components, thirty-three questions were put. (**Appendix-V**) The thirty-seven questions were categorized area-wise as under.

Table No: 3.9 Dimensions of Questionnaire for Principals

No.	Component	Total Ques.
1.	Personal Information	11
2.	School Planning (Bal Mela and Other Govt Programmes)	3
3.	Provision of Govt. Grants	5
4.	Challenges in Primary Education	13
5.	School Principal Responsibilities	5
	Total	37

6. Interview Schedule for Trustee

The interview of the Trustees' sole purpose was to probe further into the functioning of Ashram School and their views regarding different practices going on in schools. Interviews involve a set of assumptions and understandings about the situation, which are not generally associated with a casual conversation (Denscombe 1983; Silverman 1985). The interview is often superior to other data-gathering tools with the skillful interviewer because people are more willing to talk than write.

In the present study, the researcher designed a structured interview schedule for the Trustees of Ashram Schools and Students of Ashram Schools. These interview schedules were prepared with the help of steps given by Turney and Robb (1971). The **first step** in preparing the interview schedule was to decide exactly what data the interview should yield. For this researcher thought that to verify the data collected through questionnaire and for more depth data regarding the functioning of Ashram Schools, the researcher prepared an interview schedule for Trustees.

In the **second step**, the researcher decided whether the structured or unstructured procedure would be more helpful. Here researcher prepared a structured interview schedule because some questions needed more clarity and in-depth interrogation, so the researcher thought to go with a structured interview procedure.

In the **third step** decision about how the results of the interview should be recorded was taken. Here, the researcher decided to note down the responses simultaneously

with the interview, and for using this technique successfully, the investigator practiced it. Along with this researcher made a rough outline of the interview schedule. Questions on the subtopic were grouped, and finally, there were twenty-five questions put. The length of the interview schedule was taken into consideration, and more general questions were kept first, and detailed and specific questions at the end of the interview schedule. A copy of the interview schedule was shown to the guide, and after the discussion first draft of the interview, the schedule was finalized. Then the final draft of the interview schedule was ready.

In the fourth step, a pilot study was carried out over the few other Trustees, and this tried-out session revealed essential issues, like the length of questions and problems in noting down the responses; those were rectified before actual proceeding. In this way, the tool–interview schedule was prepared, and in it, there were twenty-two questions. (Appendix-VI)The twenty-two questions were categorized area-wise as under.

Table No: 3.10 Dimensions of Interview Schedule for Trustees

No.	Component	Total Ques.
1.	Personal Information	9
2.	Provision of Govt. Grants	2
3.	Community Support	2
4.	Challenges in Education Functionaries	4
5.	School Initiatives	5
	Total	22

3.10 DATA COLLECTION PROCEDURE

- At first, the researcher took permission from authorities for data collection. The data collection is planned as follows,
- The researcher devoted two days to each Ashram School. The researcher personally filled up checklists and Information schedules.
- With prior planning and permission, interviews of students and trustees were conducted by the researcher separately.
- For the Classroom Instruction, the teachers are teaching the six major subjects, i.e., 1. Science, 2. Mathematics, 3. Social Science, 4. English, 5. Gujarati and 6. Hindi was selected randomly to observe the class-rooms transactions. One class

was observed from each Ashram School randomly which could cover all the above subjects from each sampled school were observed, keeping in mind the evaluation criteria prepared by the researcher.

3.11 DATA ANALYSIS

The collected data were analyzed, both quantitatively and qualitatively. A brief overview of the same is presented in the table given below :

Table No: 3.11 Overview of Data analysis

Sr. No.	Objective	Sources of Data	Tools	Data Analysis
1	To study Physical Facilities of Ashram Schools for Scheduled Tribes in Gujarat.	School Premises	Checklist Observation & Information Schedule	Frequency %
2	To study the Human Resources of Ashram Schools for Scheduled Tribes in Gujarat.	School Registers	Information Schedule & Observation	Content Analysis & Frequency %
3	To study academic achievements of students of Ashram Schools for Scheduled Tribes in Gujarat.	Annual Examination Result Prepared by Concern Ashram School from Class 1 to 7	Information Schedule	Frequency %
4	To study Enrollment and Drop-outs from the year 2006 to 2013 of Ashram Schools for Scheduled Tribes in Gujarat.	General & attendance Registers	Information Schedule	Frequency % and Trend Analysis
5	To study the classroom transactions in Ashram Schools for Scheduled Tribes in Gujarat.	Teachers' Classroom Transactions Observation in Concern Class	Observation	Frequency % & Content Analysis

6	To study problems faced by Students, Teachers, Administrators, and supporting staff of Ashram Schools for Scheduled Tribes in Gujarat.	From Students, Teachers, Principals, and Trustees	Interview & Questionnaire	Qualitative Thematic Analysis & Content Analysis
7	To study suggestions of Students, Teachers, Administrators, and supporting staff for improvement of functions of Ashram Schools for Scheduled Tribes in Gujarat.	From Students, Teachers, Principals, and Trustees	Interview & Questionnaire	Qualitative Thematic Analysis & Content Analysis