CHAPTER-III

METHODOLOGY OF THE STUDY

3.1 INTRODUCTION

In the preceding chapter literature study about the status of inclusion education in elementary schools at national and international level was discussed. It is the intention of the researcher to further establish in quantifiable terms the level of inclusive education. In this chapter the empirical research methodology used for the investigation of status of inclusive education is described.

This chapter presents a discussion of the research design and methodology. According to McMillan and Schumacher (2001) “research design describes the procedures on how to conduct research including: when, from whom and under what conditions the data will be obtained”. It also indicates how the research is set up explaining the methods that will be used to collect data and the procedure in general for conducting the study. In addition to that Mouton and Marais (2004) had defined research methodology as:

- a study of a research process in all its broadness and complexity;
- the various methods and techniques that are employed;
- the rationale that underlines the use of such methods;
- the limitations of each technique;
- the role of assumptions and presuppositions in selecting methods and techniques;
- the influence of methodological preferences on the types of data analysis employed; and the subsequent interpretations of findings.

Methodology helps in exploring the research problem from various possible angles so as to lead to the discovery of truth. The success of any research work depends mainly upon the selection of appropriate methods and tools for the study. Research is considered to be systematic and intensive process of carrying on an in depth method of analysis. It intends to find out what exist at present in a particular context. This
facilitates gathering data from a relatively large number of cases at a particular time. The qualitative research design, sampling and the data collection strategies that were used in this research are discussed in the present chapter.

3.2 RESEARCH DESIGN

The design of the research is the conceptual structure with which research is conducted. It constitutes the blueprint for the collection, measurement and analysis of data. Research design is needed for the smooth sailing of various research operations, thereby making research as efficient as possible. Selection of a particular design is based upon the purpose and nature of research.

Best and Kahn (1985) have made scientific classification of educational research which is wide and comprehensive and all researches are likely to fall under one of the following three types or a combination of these types of research design:

- Historical research
- Descriptive research
- Experimental Research

For this study Qualitative descriptive research methodology was adopted. Qualitative descriptive study may be described as the one which uses qualitative methods to describe and discover non-quantifiable relationships between existing variables.

Under qualitative descriptive research, survey method was used. Descriptive survey research is concerned with the present status of the phenomenon. Survey design was adopted for this phase because this phase was exploratory in nature. It aims at finding out what is existing in the present social structure. In the present study it was intended to study the status and implementation of inclusive education in elementary schools. The views of various persons involved in imparting inclusive education like administrators, principals, teachers and also the views of the children having sensory and locomotors impairment and normal students of the regular schools were investigated.

The researcher had used a qualitative research design to investigate the status and implementation of inclusive education in the schools. According to Cloete (2002) a qualitative approach is relevant to an investigation into inclusive education. The approach had been used before for gathering information in special education. Due to the uniqueness of learners having different categories of disabilities as well as within them the approach allowed researchers to collect rich information that is why the
researcher opted for the qualitative research design. The aim of the research is to examine the status and implementation of inclusion of children having sensory and locomotor impairment in elementary schools. Educators were given a platform to explain the status of inclusive education in their school. They were also asked to identify the barriers they experienced in implementing inclusive education in elementary schools and the training needs which the educators felt were required to make inclusion successful for children having sensory and locomotor impairment.

3.2.1 The research site
The researcher has selected Delhi and NCR inclusive elementary schools as the learning site for research purposes.
The researcher selected these schools in particular because of their outstanding academic results and an excellent management record. The main purpose behind selecting these schools in particular by the investigator is to gain a deeper understanding or insight into the implementation of the inclusive education in these schools.

3.2.2 Population
A population is any group of individuals that has one or more characteristics in common. The population of this study consisted of two hundred and twenty nine elementary inclusive schools of Delhi and NCR region (source Directorate of education).

3.2.3 Sampling
Given that the objective of this research was to examine the present status of inclusive education, it was necessary to select a sample of inclusive school which were having children with sensory and locomotor impairment. In this regard McMillan and Schumacher (2001) maintain that qualitative researchers investigate in-depth small, distinct groups as the researcher is concerned with understanding the social phenomena from the research participants’ perspective.
McMillan and Schumacher (2001) further recommended purposeful sampling because the samples that were selected were expected to be knowledgeable and informative about the phenomena the researcher was making an attempt to investigate.
Makhado (2002) stresses the fact that it is important to select information- rich cases, as this will help the researcher to address the purpose of the research. Thus for the
purpose of this research a three stage sampling procedure was followed as shown in Figure 3.1

Figure 3.1 Details of stages of sampling

At the first stage the list of all the inclusive schools in Delhi and NCR was collected from the directorate of education’s records. Purposive sampling was carried out, to select the schools having children with locomotor and sensory impairment. Further purposive sampling procedure was used to select thirty inclusive elementary schools of Delhi and NCR in which children with locomotor and sensory impairment were available. Out of these fifteen schools were from Delhi and another fifteen were from NCR region. The school wise details of the sampling procedure is in Figure 3.2 At the second stage, principals of the thirty selected schools and the children having sensory and locomotor impairment from class I to VIII were selected purposefully. In the third stage simple random sampling was done using lottery system for the selection of six teachers teaching in inclusive classroom from class I to VIII form each school.
Several groups of people were engaged to procure information to achieve the objectives of the study. The study targeted principals/administrators and at least six educators from each school and all the children having sensory and locomotor impairment from class I to VI. The information acquired from these groups was used for triangulation to establish the validity of the research findings, since the major part of the study involved collection of qualitative data.

3.3 TOOLS OF DATA COLLECTION
Tools are the instruments that are employed to collect new facts or to explore new fields. The selection of tools for a particular study largely depends upon various considerations such as objectives of study, the time at the disposal of the researcher, availability of the suitable tools and the personal competency of the researcher to administer them. A variety of tools were used in this study to collect data. It is of vital importance to select suitable instruments and tools according to the required situation.
for effective results. The researcher made an extensive search in libraries and on the net to find a suitable standardized tool for the purpose of the present investigation. According to the nature and specificity of the present study, the researcher was unable to find relevant standardized tools to study the status of inclusive education at the elementary level for children with sensory and locomotor impairment. Therefore, to achieve the objectives of the study it was decided to develop appropriate tools for the study to investigate the status of inclusive education and to examine the perception of various persons directly involved in inclusive education. The tools were developed and standardized by the researcher under the guidance of supervisors through literature analysis and a pilot study was also conducted. The tools developed by the researcher are mentioned in Figure 3.3

**Figure 3.3 Tools of the study**

John W. Best (1992) commented that, “like the tools in the carpenter box, each is appropriate in a given situation, to accomplish a particular purpose”. Each research tool is appropriate in a given situation to accomplish a specific purpose. Each tool was administered to a specific target group. The details about the tools and target groups are given in the Table, 3.4
3.3.1 Observation schedule

Observations were undertaken in order to get answers to the research questions, by observing educators in action teaching their learners. McMillan and Schumacher (2001) indicate that the “…observational method relies on a researcher’s hearing and seeing things and recording these observations, rather than relying on subject’s self-report responses to questions or statements”. Engelbrecht et al. (2003) believed that, “…observation is a major means of collecting data in qualitative research”. The reason being, that it offers an original account of the situation under investigation.

One of the objectives of this study is to examine the status of children having sensory and locomotor impairment in inclusive schools. Therefore it is relevant to use observational method in order to get valid and reliable answers since it (observation) expects the researcher to be part of the people at the research site, observing the behaviour in the environment.

The researcher could not find any standardized tools for the physical verification of the children having sensory and locomotor impairment. Therefore the researcher designed this special tool for structured observation to provide systematic description for the physical verification of children having sensory and locomotor impairment. The observation schedule is attached as Appendix - A.
On the basis of first hand experiences from the field, literature analysis, pilot study and rigorous consultation with experts from the field, the observation schedule was constructed. It consisted of the following components:

**Components of observation Schedule:**

1. Name of the Inclusive Elementary School
2. Class
3. Section
5. Children with Hearing Impairment
6. Children with Locomotor Impairment
7. Total number of Children with special needs (CWSN)

The researcher was concerned with the physical verification of children having sensory and locomotor impairment. Thus the registers were also observed for further verification. A manual was attached with the observation schedule to identify the categories of children having sensory and locomotor impairment considered under each type of impairment. The details for collection of data under each category are described in Figure 3.5.

![Figure 3.5 Types of impairment](image-url)
### 3.3.2 Checklist

Checklist is an important tool in gathering facts for educational surveys. It draws the attention of the observer to relevant factors and enables him to record the data quickly and systematically. One of the important objectives of this research was to find the physical barriers existing in the school which hinder the implementation of inclusive education for children with sensory and locomotor impairment in the elementary schools in its real sense. Thus, the checklist was used to get the information regarding the amenities for children with sensory and locomotor impairment in physical environment. These amenities were considered in three major components:

- **Part-A**: Checklist of amenities for children with visual impairment in physical environment
- **Part-B**: Checklist of amenities for children with hearing impairment in physical environment
- **Part-C**: Checklist of amenities for children with locomotor impairment in physical environment

![Diagram](image)

**Figure 3.6 Component and items wise details of the Checklist of amenities for children with special needs in physical environment of school (CACPE)**
On the basis of first hand experiences from the field, literature analysis, pilot study and rigorous consultation with experts the final draft of the Checklist of amenities for children with special needs in physical environment of school (CACPE) was constructed. The details of the components and their items of the Checklist of amenities for children with special needs in physical environment of school (CACPE) are mentioned in Figure 3.6. The checklist is attached as *Appendix-B*.

### 3.3.3 Questionnaire

According to Van Rensburg, Landman and Bodenstein (1994), ‘a questionnaire is a set of questions dealing with some topic or related group of topics, given to a selected group of individuals for the purpose of gathering data on a problem under consideration.’ Churchill and Peter and Schnetler (1993) agree that the questionnaire as a measuring instrument has the greatest influence on the reliability of research data. They have recommended that the characteristics of measurement are best controlled by the careful construction of the instrument.

For the present study the questionnaire was undertaken to achieve the objective of finding the views, perception of educators regarding status of inclusive education in their school.

According to Dane (1990) the length of individual questions, the number of response options, as well as the format and wording of questions are determined by the following:

- Choice of the subject to be researched.
- Aim of the research.
- Size of the research sample.
- Method of data collection.
- Analysis of the data.

A question may appear correct to the researcher when written down but can be interpreted differently when asked to another person. There should be no hesitation in changing a question several times before the final formulation keeping the original purpose in mind. The following considerations were taken into account by the researcher during the designing of the questionnaire for this investigation.
• Questionnaire design is an activity that should not take place in isolation. The researcher consulted and sought advice from specialists and colleagues at all times during the construction of the questionnaire.
• Questions to be taken up in the questionnaire were pre-tested on people to eliminate possible errors.
• The researcher's avoided bias, ambiguity, prejudice and technical language in the questions. The questions were as simple and straight-forward as possible.

The questionnaire consisted of two sections. Section-I required biographical information about the educator which is mentioned as below:
• Name of the elementary School
• Teachers Name
• Gender
• Total Experience of teaching
• Educational Qualification

Section-II consisted of twenty seven items which were categorized into groups of common themes in order to have a clear understanding and flow of information, the detail description of the same is given in Table 3.1. The Questionnaire on Status of Inclusion of Children with Special Needs (QSIC) is attached as Appendix- C.

Table 3.1 Components and questions wise detail of Questionnaire on Status of Inclusion of Children with Special Needs (QSIC) for teachers

<table>
<thead>
<tr>
<th>S. No</th>
<th>Components</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Understanding about the concept of inclusive education and children with sensory and locomotor impairment</td>
<td>Q1 and Q3.</td>
</tr>
<tr>
<td>2.</td>
<td>Views on implementation of inclusive education in elementary schools</td>
<td>Q2.</td>
</tr>
<tr>
<td>3.</td>
<td>Awareness and implementation of the policies and regulations in relevant to education of children with sensory and locomotor impairment</td>
<td>Q4 and Q6.</td>
</tr>
<tr>
<td>4.</td>
<td>Awareness about the organizations for obtaining support for education of children with sensory and locomotor impairment</td>
<td>Q5.</td>
</tr>
<tr>
<td>5.</td>
<td>Admission and class allotment</td>
<td>Q7.</td>
</tr>
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</tr>
<tr>
<td><strong>6.</strong></td>
<td>Pre service Training</td>
<td>Q8 and Q11</td>
</tr>
<tr>
<td><strong>7.</strong></td>
<td>Management support</td>
<td>Q9, and Q 10</td>
</tr>
<tr>
<td><strong>8.</strong></td>
<td>Parental Support</td>
<td>Q12.</td>
</tr>
<tr>
<td><strong>9.</strong></td>
<td>Resource/special teacher</td>
<td>Q13. and Q14.</td>
</tr>
<tr>
<td><strong>10.</strong></td>
<td>Classmates support</td>
<td>Q15.</td>
</tr>
<tr>
<td><strong>11.</strong></td>
<td>Competency in early identification of children with sensory and locomotor impairment and intervention</td>
<td>Q16.</td>
</tr>
<tr>
<td><strong>12.</strong></td>
<td>Participation in events, co-curricular activities</td>
<td>Q17. And Q18.</td>
</tr>
<tr>
<td><strong>13.</strong></td>
<td>Attitude towards children with sensory and locomotor impairment</td>
<td>Q19. and Q20.</td>
</tr>
<tr>
<td><strong>14.</strong></td>
<td>Curriculum Adaptations</td>
<td>Q21A. Q21B. Q21C. Q22. &amp; Q23.</td>
</tr>
<tr>
<td><strong>15.</strong></td>
<td>Evaluation and assessment practises</td>
<td>Q24A. &amp; Q24B.</td>
</tr>
<tr>
<td><strong>16.</strong></td>
<td>Collaboration with other organisation</td>
<td>Q25.</td>
</tr>
<tr>
<td><strong>17.</strong></td>
<td>Time Management</td>
<td>Q26</td>
</tr>
<tr>
<td><strong>18.</strong></td>
<td>Barriers in implementing inclusive education in elementary school</td>
<td>Q 27.</td>
</tr>
</tbody>
</table>

### 3.3.4 Focused group discussion schedule

The focused group discussion is one of the selected methods used in this study to collect data. It is ‘… a strategy for obtaining a better understanding of a problem or an assessment of a problem; concerning a new product, program or idea by discussing with a purposefully sampled group of people rather than discussing with each person individually.’ McMillan and Schumacher (2001) Krueger and Van Zyl (2002) recommended that a focus group should consist of between six to ten participants in order to get as many different opinions as possible. For the present study the focused group discussion was undertaken to achieve the objective of finding the views and perception of children with sensory and locomotor impairment regarding inclusive education. Hence the tool was administered to children with sensory and locomotor impairment from each research site which were selected to participate in the study. The final draft of the tool consisted of eight questions which were categorized into groups of common themes in order to have a clear understanding and a flow of
information as given in Table 3.2 The Focus group discussion schedule for children with special needs (FGDS) is attached as Appendix E.

Table 3.2 Components and questions of Focus group discussion schedule for children with special needs (FGDS)

<table>
<thead>
<tr>
<th>S. No</th>
<th>Components</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Support for the process of Inclusion</td>
<td>Q1.</td>
</tr>
<tr>
<td>2.</td>
<td>Participation in events</td>
<td>Q2. &amp; Q3.</td>
</tr>
<tr>
<td>3.</td>
<td>Attitude towards children with sensory and locomotor impairment</td>
<td>Q4. &amp; Q5.</td>
</tr>
<tr>
<td>4.</td>
<td>Curriculum Adaptations</td>
<td>Q6A, Q6B, Q6C &amp; Q7</td>
</tr>
<tr>
<td>5.</td>
<td>Evaluation and assessment practises</td>
<td>Q8A &amp; Q8B.</td>
</tr>
<tr>
<td>6.</td>
<td>Barriers experienced in the inclusive schools</td>
<td>Q9</td>
</tr>
</tbody>
</table>

3.3.5 Personal Interview
The tool was constructed after reviewing the tools of administrator as suggested in the, ‘Index for developing inclusive schools’ policy document of department of education of groups with special needs NCERT (2013). For the present study the personal interview was undertaken to achieve the objective of finding the views and perception of principals regarding status of inclusive education in their school.

The tool consisted of twenty questions which were categorized into groups of common components in order to have a clear understanding and flow of information. The detail description of the same is given in Table 3.3. The Interview Schedule on Status of Inclusion of Children with Special Needs (ISSIC) is attached as Appendix-D.
Table 3.3  Components and questions wise detail of Interview schedule on status of inclusion of children with special needs (ISSIC) for school principal

<table>
<thead>
<tr>
<th>S. No</th>
<th>Components</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Understanding about the concept of inclusive education and children with sensory and locomotor impairment</td>
<td>Q1. &amp;Q3.</td>
</tr>
<tr>
<td>2.</td>
<td>Views on implementation of inclusive education in elementary schools</td>
<td>Q2.</td>
</tr>
<tr>
<td>3.</td>
<td>Awareness and implementation of the policies and regulations in relevant to education of children with sensory and loco motor impairment</td>
<td>Q4. &amp; Q6.</td>
</tr>
<tr>
<td>4.</td>
<td>Awareness about the organizations for obtaining support for education of children with sensory and loco motor impairment</td>
<td>Q5.</td>
</tr>
<tr>
<td>5.</td>
<td>Admission and class allotment</td>
<td>Q7.</td>
</tr>
<tr>
<td>6.</td>
<td>Pre service Training</td>
<td>Q8 &amp; Q11</td>
</tr>
<tr>
<td>7.</td>
<td>Management support</td>
<td>Q9. &amp; Q 10</td>
</tr>
<tr>
<td>12.</td>
<td>Collaboration with other organisation</td>
<td>Q18.</td>
</tr>
</tbody>
</table>

3.3.6 Document Analysis

McMillan and Schumacher (2001) explain documents as, ‘records of past events that are written or printed; they may be anecdotal notes, letters, diaries, tax records and receipts, maps, journals, newspapers and official minutes.’ Merriam and Engelbrecht et al. (2003) used documents as an umbrella term to refer to a wide range of visual, written and physical material relevant to the research study. Given the objective of
this study was to examine the status of inclusive education in the classroom, the researcher required to understand how they managed inclusion in the past. The researcher therefore interpreted the facts from the documents in order to provide the explanations of the past, and clarified the collective educational meaning that may be underlying current issues and practices. The documents which were analysed are mentioned below:

- Documents collected during fieldwork included curriculum frameworks,
- Policy documents on inclusion,
- Index for developing inclusive schools
- Books
- Departmental circulars,
- Registers-attendance, special class
- Students records
- Draft guidelines for the implementation of inclusive education: 2002

3.4 VALIDITY AND RELIABILITY OF THE TOOLS
The qualitative researcher as the person who collects data is accountable for the results of the research findings. These findings should, however, be credible and trustworthy so that they may be applied in the field and be useful to the people who read the research findings. Khumalo (2000) stressed that, ‘to establish the trustworthiness of the data in qualitative research it is important that the researcher should use different procedures.’ The two concepts that are established in the notion of trustworthiness are reliability and validity. Validity and reliability are particularly important in educational research because most of the measurements attempted in this area are obtained directly.

3.4.1 Validity of the tools
Ary, Jacobs and Razavieh, Best and Kahn, (2001) describe validity as “… the extent to which an instrument or procedure measures what it is suppose to measure”. In essence reality is multidimensional, ever-changing and in a sense subjective therefore it could be difficult to ensure validity.
Smit (2002) is of the opinion that the validity of qualitative research lies in its internal validity rather than its external validity. By internal validity, the above author refers to
internal logical relationships that have to do with goals, reasons, and meaning. It deals with how the study’s findings match reality. According to Makhado (2002) internal validity addresses the following questions:

- Do researchers actually observe what they think they observe?
- Do researchers actually hear the meanings that they think they hear?

However, the strength of this research lies in its internal validity. The validation process of developed tools was done systematically.

1. The researcher identified various components for the relevant tools.
2. Items were developed with reference to the components.
3. The tools were circulated among experts for their comments and suggestions.
4. The suggestions given by experts were incorporated in the respective tools.
5. The validity of the interview was done by comparing the interviewee’s response with other source of data.
6. The items in the checklist were phased in such a way that they were discriminative in quality.
7. Best (1977) is of the opinion that the validity of observational measurements are improved when observation are made at frequent intervals by the same observer. Thus the researcher did observation in the selected school frequently during a span of six months.
8. The pilot study was done to enhance the validity of all the tools, some items were changed, some items were rephrased and some repositioned. However, no statistical analysis was entertained to prove the validity and reliability of the tool.
9. Video and tape recording, photographing while administering the personal interview and focus group discussion was done wherever possible.

Thus it can be observed that the validity of each tool is inbuilt and therefore reveals the context and purpose for which it was designed. In other words, each research tool possessed the content validity. The tools validity was again confirmed by making each tool appraise critically by the principal of concerned elementary schools as well as the supervisor and expert of the field.
3.4.2 Triangulation Method

To ensure the application of the above concepts the researcher has included triangulation. Triangulation refers to the use of more than one approach to the investigation of a research question in order to enhance confidence in the ensuing findings. According to Sethosa (2001) “… triangulation refers to the use of multiple methods in the collection of data in order to compensate for the limitations of each method”. In the present study data triangulation comprising of gathering data from different stakeholders was done along with it methodological, between method involving various tools and combined use of qualitative and quantitative research methods was undertaken to arrive at convergent findings was undertaken. The method of triangulation was used in establishing validity of the tools like.

1. Checklist for physical verification of children with sensory and locomotor impairment
2. Personal interview schedule on status of inclusion of children with special needs for principals.
3. Observation schedule for physical verification of children with special needs
4. Focus group discussion schedule for children with special needs
5. Questionnaire on status of inclusion of children with special needs for teachers.
6. Pilot testing and other relevant documents to enhance the credibility of her interpretations.

The triangulation method involved the following process:

1. The inclusion of different sources of data collection in a research increases the validity of the study results.
2. Observation of empirical data from many angles by using the technique of interview, observation and experiences of the cases.
3. The tape recorder and the transcripts had important implications for reliability and accuracy.
4. Cross checking of the data gathered through various techniques.
5. By asking parallel questions to ascertain clear response.
6. Frequent observations.
3.4.3 Reliability of the tools
Reliability is a statistical concept and relates to consistency and dependability of obtaining the same relative answer while measuring phenomena that have not changed. Silverman (2002) defines reliability as “… the degree to which the finding is independent of accidental circumstances of the research”. In addition to that reliability as Sethosa (2001) puts it “… is the degree of consistency with which the instrument or procedure measures whatever it is supposed to measure.”

3.4.4 Pilot testing
Dane (1990) opinions that, “A pilot study is an abbreviated version of a research project in which the researcher practises or tests the procedures to be used in the subsequent full-scale project”. The pilot study is a preliminary or "trial run" investigation using similar subjects as in the final survey. Kidder and Judd (1986) maintain that,” the basic purpose of a pilot study is to determine how the design of the subsequent project can be improved and to identify flaws in the measuring instrument.” A pilot study gives the researcher an idea of what the method will actually look like in operation and what effects it is likely to have, in other words, by generating many of the practical problems by changing procedures, instructions and questions.

For the purpose of this study the researcher conducted a pilot run at a very successful and renowned inclusive elementary school located in east Delhi. The above school had implemented inclusive education. Educators at the pilot school had experience in implementing inclusive education in their classrooms.

The researcher selected first to eighth class children with sensory and locomotor impairment, six educators and principal of the school. The six educators in the pilot school were trained and qualified. The purpose of the pilot study was to determine the way the tools would be comprehended by the populations to be surveyed. No quantitative analysis of the data was carried out.

The respondents were encouraged to make comments and suggestions about specific items in the questionnaire. The feedback from the respondents, the observations made by the researcher as well as suggestions given by experts were taken into consideration when drawing up the final draft of the tools.

Plug, Meyer, Louw and Gouws (1991) list some of the purposes of the pilot study. These were also the aims of the researcher in this study:
• Pilot study provides the researcher ideas, approaches and clues not foreseen prior to the study.
• Certain areas which the researcher had not covered were identified. eg Questions about different strategies and methods in teaching inclusive classroom were added to the interview schedule.
• Treatment errors were greatly reduced because unforeseen problems revealed in the pilot study resulted in redesigning the main study.
• Items and instructions that were misinterpreted were reformulated.
• It permitted a thorough check of the planned statistical and analytical procedures, thus allowing an appraisal of their adequacy in treating the data.
• The researcher saved major expenditures in terms of time and money on aspects of the research, which would have been unnecessary.
• The researcher was able to establish the approximate time required to complete the questionnaire.

It is thus evident that pilot testing is of value, as Marshall and Rossman (2001) emphasized that “… questions have to be pilot tested on a small group to determine the usefulness and reliability of the information before it is administered to a larger group of respondents.”

3.5 ADMINISTRATION OF THE TOOLS
The researcher administered the tools in thirty inclusive schools in Delhi and NCR. The researcher personally administered the tools to selected respondents i.e. principals, educators, children with sensory and locomotor impairment and collected them after completion.

The observation of the inclusive school for physical verification of children with sensory and locomotor impairment was conducted by the researcher herself using Observation schedule for physical verification of children with special needs. The observer herself observed each section of class I to VIII in each school and verified the total number of children with sensory and locomotor impairment. Moreover the register was consulted for further verification of the students.

The verification of inclusive school in terms of amenities for children with locomotor impairment in physical environment was done by the researcher herself using checklist of amenities for children with special needs in physical environment of school (CACPE)
The children with sensory and locomotor impairment from first to eighth class were identified and the researcher herself took their focus group discussion after taking permission from the authority. The group discussion of the focussed group students was held in one of the classroom in all the schools, as the students unanimously chose it because they felt it was conducive for all of them. For the focus group discussion chairs were arranged in such a way that the participants were facing each other and also allowing the interviewer to make eye contact with all of them during the interview. The children with sensory and locomotor impairment were briefed about the procedure before the interview started. They were asked to be open and truthful about their experience in inclusive education as their input was of significance to the research. The researcher took the help of the class teachers and special/resource teacher in this process. This method of administration facilitated the process and the response rate.

In each elementary school Questionnaire on status of inclusion of children with special needs was administered to at least six teachers of first to eighth class who were teaching children with sensory and locomotor impairment. The prior permission from the authority was taken to administer the tools to the teachers. The educators were informed about the objective of the tool and were requested to provide their inputs about what they lack as educators, availability of facilities and their competencies were of importance to the research.

The different strategies and methodologies that educators feel could be of value to promote the implementation of inclusive education, especially in the classroom, was highly appreciated. Educators were made aware that they are valuable participants so they have to air their views confidently and honestly. Even though the questions were carefully selected and phrased in advance, they were semi-structured and open-ended allowing for probing and clarification where necessary.

The venue for the personnel interview for principal was the Principal’s office in each school. Interview schedule on status of inclusion of children with special needs (ISSIC) was used to conduct interview of principal, during the interview notes were taken by the researcher. The interview questions were similar for all the participants except when there was a need for the question to be rephrased for the sake of clarification.
3.6 CONCLUSION
In the present chapter the research design, applied for the empirical investigation, was discussed. The observation schedule, checklist, questionnaire, interview guide, focus group discussion, documents as research instruments were comprehensively described and the procedure of their administration was discussed in detail. However, valid reliable and adequate the data may be, it does not serve the worthwhile purpose unless it is carefully edited and systematically analysed, intelligently interpreted and rationally concluded. The method used for this purpose is called statistics. The statistical treatment is the next important step after data collection. The data which was collected using the methods explained in chapter three was consolidated and quantified and is furnished in the following chapter.