CHAPTER – III

METHODOLOGY

Methodology stands for a particular procedure in any research study that is helpful in finding the solution of the research problem in hand. It is a procedure of gathering and organizing data from primary and secondary sources regarding the problem. It is a systematic plan of using various methods and techniques to understand and explain the cause and effect relationship. Therefore in this section it is essential to explain precisely, the way in which the selections of data collection strategies relate to an overall theoretical and epistemological stance for the research.

The method and procedure that was adopted in this study consisted of the assumptions already made in the synopsis. These included the implicit as well as the explicit assumptions covering an evaluative study of Mid-Day Meal Scheme in Bathinda District of Punjab.

In the case of present study there are more than one approaches which the investigator adopted to reflect the answer from different angles to the present research questions. The investigator tried to relate both methods of data collection and organization, back to the objectives established in the synopsis.

Descriptive method of research was found to be most promising for the present research work as “It helps to explain the educational phenomena in terms of the conditions or relationships that exist, opinions that are going on. Effects that are evident, or trends that are developing. Because of the apparent ease and directness of this method, a researcher can gather information in terms of individual’s opinion about some issue, by a simple questionnaire. At times, disruptive survey is the only means
through which opinion, attitudes, suggestions for improvement of educational practices and instruction, and other data can be obtained.” (Kaul 2008: 433)

3.1 METHOD AND PROCEDURE ADOPTED:

To conduct the present study the investigator had adopted four different methodological approaches in descriptive research which had resulted in dividing the present research work into following four parts:

i. Historical & Policy Perspectives and Implementation Mechanism

ii. Analysis of Secondary Data

iii. Study of Views and Perceptions

iv. Case Studies

3.1.1 Historical & Policy Perspectives and Implementation Mechanism:

The historical and policy perspective of Mid-Day Meal Scheme was studied on the basis of literature available, Supreme Court’s judgment, and centre and state Government’s various reports. The implementation of the government's policies vis-à-vis evolution of various school food programmes including Mid-Day Meal Scheme was studied in detail. Needless to mention that, the implementation of Mid-Day Meal Scheme was studied in the broader context of implementation of Mid-Day Meal Scheme in the whole country.

3.1.2 Analysis of Secondary Data:

The trend analysis was done to study the pattern of impact of Mid-Day Meal Scheme in Bathinda District, based on secondary sources of data. For this purpose the data collected from Punjab Government’s Mid-Day Meal Cell, D.E.O. Office Bathinda
and B.P.E.O. office of six education blocks of the district was analyzed. The secondary data from all these sources was pooled up to study the trends and patterns of:

a. Gross Enrolment Ratio (GER)

b. Net Enrolment Ratio (NER)

c. Gender Gap

d. Drop-Out Rate

After the implementation of Mid-Day Meal Scheme in the Bathinda District of Punjab.

3.1.3 Study of Views and Perceptions:

The views and perceptions of the respondents about the different issues related to Mid-Day Meal Scheme had been studied by the method of research applied as under:

3.1.3.1 Sample:

The technique of multistage sampling was employed to select head teachers, teachers, students, parents and cooks from Bathinda District for seeking their views and perceptions about the various issues and problems related to Mid-Day Meal Scheme. For the purpose of drawing head teachers, teachers and cooks 15 ro 20 primary schools were selected randomly from each of the six blocks of the district. For the sample of students and their parents two schools from each block (one rural and one urban) were selected and all the students but only parents of 25% of them were taken.
Table 3.1: Details of sample of primary schools taken for the study

<table>
<thead>
<tr>
<th>Educational Block</th>
<th>Number of schools</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rural</td>
</tr>
<tr>
<td>Bathinda</td>
<td>10</td>
</tr>
<tr>
<td>Mandi Phul (East)</td>
<td>15</td>
</tr>
<tr>
<td>Mandi Phul (West)</td>
<td>5</td>
</tr>
<tr>
<td>Nathana</td>
<td>5</td>
</tr>
<tr>
<td>Sangat</td>
<td>5</td>
</tr>
<tr>
<td>Talwandi Sabo</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>50</strong></td>
</tr>
</tbody>
</table>

Table 3.2: Details of sample of subject taken for the study of views and perceptions

<table>
<thead>
<tr>
<th>Education Block</th>
<th>Head Teachers</th>
<th>Teachers</th>
<th>Students</th>
<th>Parents</th>
<th>Cooks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bathinda</td>
<td>20</td>
<td>50</td>
<td>150</td>
<td>38</td>
<td>80</td>
</tr>
<tr>
<td>Mandi Phul (East)</td>
<td>15</td>
<td>35</td>
<td>150</td>
<td>37</td>
<td>50</td>
</tr>
<tr>
<td>Mandi Phul (West)</td>
<td>15</td>
<td>35</td>
<td>150</td>
<td>37</td>
<td>50</td>
</tr>
<tr>
<td>Nathana</td>
<td>15</td>
<td>40</td>
<td>150</td>
<td>38</td>
<td>50</td>
</tr>
<tr>
<td>Sangat</td>
<td>15</td>
<td>40</td>
<td>150</td>
<td>37</td>
<td>50</td>
</tr>
<tr>
<td>Talwandi Sabo</td>
<td>20</td>
<td>50</td>
<td>150</td>
<td>38</td>
<td>80</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>(100)</strong></td>
<td><strong>(250)</strong></td>
<td><strong>(900)</strong></td>
<td><strong>(225)</strong></td>
<td><strong>(360)</strong></td>
</tr>
</tbody>
</table>

3.1.3.2 Development of Interview Schedules:

In order to study the views and perceptions of stakeholders, head teachers, teachers and cooks about the problems faced in Mid-Day Meal Scheme, following interview schedules were constructed and standardized by the investigator herself:

1. Interview schedule for head teachers

*Mandi Phul (East) is a rural block.*
2. Interview schedule for teachers
3. Interview schedule for students
4. Interview schedule for parents
5. Interview schedule for cooks

These interview schedules had been focused on the issues related to implementation, availability of Infrastructure, availability of manpower, quality of meals served, quantity of meals served, regularity, management, effectiveness of scheme and other related issues.

The above said five types of interview schedules, used for the present study had been developed while keeping the format of questions open ended in order to obtain variety of responses in a free flow manner in following way:

3.1.3.2.1 Development of interview schedule for head teachers:

To get the community response from the head teachers a special interview schedule was prepared. Before the development of this interview schedule related literature on Mid-Day Meal Scheme of government of India and the problems of its implementation was consulted.

The content of the schedule was developed in such a way so as to motivate the respondents to provide the required information. Items were framed in such a way as brought out the necessary information about the following issues and problems:

1. Frequency of providing Mid-Day Meal per week
2. Satisfaction of the beneficiaries
3. Quantity of meal served under the scheme
4. Quality of meal served under the scheme
5. Running of Mid-Day Meal Scheme at the school level
6. Punctuality of agencies involved in Mid-Day Meal Scheme
7. Availability of infrastructure including kitchen, water supply and adequate storage space.
8. Availability of man power
9. Unit cost of Mid-Day Meal Scheme per day
10. Funding of Mid-Day Meal Scheme
11. Inspection of implementation of Mid-Day Meal Scheme
12. Responsibility of preparation and distribution of meals
13. Employment of cooks
14. Role of community in the Mid-Day Meal Scheme
15. Meals provided under Mid-Day Meal Scheme and fulfillment of children’s need for food
16. Mid-Day Meal Scheme and academic achievement of students
17. Mid-Day Meal Scheme and pupils habits related to health and hygiene
18. Mid-Day Meal Scheme and truancy among the children
19. Impact of Mid-Day Meal Scheme on teaching
20. Mid-Day Meal Scheme and social unity
21. Mid-Day Meal Scheme and health of pupils
22. Caste issues and Mid-Day Meal Scheme

Moreover the items for the Interview Schedule for head teachers weren framed in such a manner so that maximum information could be elicited from the respondents. Further, attempt was made to keep the items in the interview schedule as precise as possible and at the same time unambiguous and clear. Each item sought information
about only one aspect. Double negatives, annoying and embarrassing questions were avoided in the items.

The items were arranged in such a manner that information from general to specific be collected from the head teachers working in the elementary schools. The items so prepared were shown to experts in the field of education and suggestions about those items had been incorporated and the redundant items were deleted. Thus, in this way the interview schedule for head teachers was prepared. The structure of the interview schedule for head teachers was as under:

Table 3.3: Number of items in the interview schedule for head teachers related to various issues

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Issues</th>
<th>No. of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Management</td>
<td>17</td>
</tr>
<tr>
<td>2.</td>
<td>Regularity</td>
<td>2</td>
</tr>
<tr>
<td>3.</td>
<td>Effectiveness</td>
<td>4</td>
</tr>
<tr>
<td>4.</td>
<td>Impact on academic environment</td>
<td>2</td>
</tr>
<tr>
<td>5.</td>
<td>Quality</td>
<td>2</td>
</tr>
<tr>
<td>6.</td>
<td>Quantity</td>
<td>1</td>
</tr>
<tr>
<td>7.</td>
<td>Community participation</td>
<td>3</td>
</tr>
<tr>
<td>8.</td>
<td>Community response</td>
<td>1</td>
</tr>
<tr>
<td>9.</td>
<td>Social unity</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>36</strong></td>
</tr>
</tbody>
</table>
3.1.3.2.1.1 Preliminary try out of the interview schedule for head teachers:

First draft of the interview schedule was given to the teachers of five elementary schools. The purpose of this try out was to get feedback regarding the suitability of items in terms of language, content, clarity and understanding etc.

It helped the investigator in modification, alteration, addition or deletation of certain items. After this, the final draft of the interview schedule for head teachers was prepared.

3.1.3.2.1.2 Validation of the interview schedule for head teachers:

Validation is essential for the effective use of any data gathering tool. A data collection tool is said to be valid when it collects the same information what it claims to collect.

The content validity of the interview schedule for head teachers was established by showing it to the experts in the field. The draft of interview schedule was properly checked and modified as suggested by the experts of aforesaid concerned field.

3.1.3.2.1.3 Reliability of the interview schedule for head teachers:

A data collection tool must be reliable i.e. it must have ability to consistently yield the same results when repeated measurements are taken of the same individuals under the same conditions.

The test-retest method was used to carry out reliability of the interview schedule for head teachers. The final draft of interview schedule meant for head teachers was given to five head teachers of different elementary schools and the responses were recorded. After one month, the same interview schedule was again given to the same head teachers. The responses given by the respondents in the second administration
were compared with that of the first and it was inspected that whether the responses were nearly similar to the first. That was how the reliability of the interview schedule for head teachers was established.

3.1.3.2.2 Development of the interview schedule for teachers:

To get the community response from the elementary teachers, a special interview schedule was prepared. Before the development of this interview schedule, related literature on Mid-Day Meal Scheme of government of India and the problems of its implementation was consulted.

The content of the schedule was developed in such a way so as to motivate the respondent to provide the required information. Items were framed in such a way as brought out the necessary information about the following issues and problems:

1. Satisfaction with the provision of cooked meals under Mid-Day Meal Scheme
2. Frequency of providing Mid-Day Meal per week
3. Satisfaction of the beneficiaries
4. Quality of meal served under the scheme
5. Quantity of meal served under the scheme
6. Running of Mid-Day Meal Scheme at the school level
7. Punctuality of agencies involved in Mid-Day Meal Scheme
8. Availability of infrastructure including kitchen, water supply and adequate storage space.
9. Availability of man power
10. Their role in Mid-Day Meal Scheme
11. Meals provided under Mid-Day Meal Scheme and fulfillment of children’s need for food

12. Mid-Day Meal Scheme and academic achievement of students

13. Mid-Day Meal Scheme and pupils habits related to health and hygiene

14. Mid-Day Meal Scheme and truancy among the children

15. Impact of Mid-Day Meal Scheme on teaching

16. Mid-Day Meal Scheme and social unity

17. Mid-Day Meal Scheme and health of pupils

18. Caste issues and Mid-Day Meal Scheme

Moreover the items for the Interview Schedule for teachers were framed in such a manner so that maximum information could be elicited from the respondents. Further, attempt was made to keep the items in the interview schedule as precise as possible and at the same time unambiguous and clear. Each item sought information about only one aspect. Double negatives, annoying and embarrassing questions were avoided in the items.

The items were arranged in such a manner that information from general to specific be collected from the teachers working in the elementary schools. The items so prepared were shown to experts in the field of education and suggestions about those items were incorporated and the redundant items were deleted. Thus, in this way the interview schedule for teachers was prepared. The structure of the interview schedule for teachers was as under:
Table 3.4: Number of items in the interview schedule for teachers related to various issues

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Issues</th>
<th>No. of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Management</td>
<td>11</td>
</tr>
<tr>
<td>2.</td>
<td>Regularity</td>
<td>2</td>
</tr>
<tr>
<td>3.</td>
<td>Effectiveness</td>
<td>4</td>
</tr>
<tr>
<td>4.</td>
<td>Impact on academic environment</td>
<td>2</td>
</tr>
<tr>
<td>5.</td>
<td>Quality</td>
<td>2</td>
</tr>
<tr>
<td>6.</td>
<td>Quantity</td>
<td>1</td>
</tr>
<tr>
<td>7.</td>
<td>Community participation</td>
<td>2</td>
</tr>
<tr>
<td>8.</td>
<td>Community response</td>
<td>1</td>
</tr>
<tr>
<td>9.</td>
<td>Social Unity</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>29</strong></td>
</tr>
</tbody>
</table>

3.1.3.2.2.1 Preliminary try out of the interview schedule for teachers:

First draft of the interview schedule was given to the teachers of five elementary schools. The purpose of this try out was to get feedback regarding the suitability of items in terms of language, content, clarity and understanding etc.

It helped the investigator in modification, alteration, addition or deletion of certain items. After that, the final draft of interview schedule for teachers had been prepared.

3.1.3.2.2.2 Validation of the interview schedule for teachers:

Validation is essential for the effective use of any data gathering tool. A data collection tool is said to be valid when it collects the same information what it claims to collect.
The content validity of the interview schedule for teachers was established by showing it to the experts in the field. The draft of interview schedule was properly checked and modified as suggested by the experts of the aforesaid concerned field.

3.1.3.2.3 Reliability of the interview schedule for teachers:

A data collection tool must be reliable i.e. it must have the ability to consistently yield the same results when repeated measurements are taken of the same individuals under the same conditions.

The test-retest method was used to carry out reliability of the interview schedule for teachers. The final draft of interview schedule meant for teachers was given to five teachers of different elementary schools and the responses were recorded. After one month the same interview schedule was again given to the same teachers. The responses given by the respondents in the second administration were compared with that of the first and it had been inspected that whether the responses were nearly similar to the first. That was how the reliability of the interview schedule for teachers was established.

3.1.3.2.3 Development of the interview schedule for students:

To get the community response from the elementary students, a special interview schedule was prepared. Before the development of this interview schedule, related literature on Mid-Day Meal Scheme of government of India and the problems of its implementation was consulted.

The content of the schedule was developed in such a way so as to motivate the respondent to provide the required information. Items were framed in such a way as brought out the necessary information about the following issues and problems:

1. Satisfaction with the provision of cooked meals under Mid-Day Meal Scheme
2. Frequency of providing Mid-Day Meal per week
3. Student’s liking about Mid-Day Meal Scheme
4. Quality of meal served under the scheme
5. Quantity of meal served under the scheme
6. Mid-Day Meal Scheme and students regularity
7. Availability of water and eating plates
8. Students role in Mid-Day Meal Scheme
9. Meals provided under Mid-Day Meal Scheme and fulfillment of pupil’s need for food
10. Mid-Day Meal Scheme and academic achievement of students
11. Mid-Day Meal Scheme and student’s habits related to health and hygiene
12. Mid-Day Meal Scheme and parents response
13. Mid-Day Meal Scheme and health of pupils
14. Caste issues and Mid-Day Meal scheme

Moreover the items for the Interview Schedule for students had been framed in such a manner so that maximum information could be elicited from the respondents. Further, attempt was made to keep the items in the interview schedule as precise as possible and at the same time unambiguous and clear. Each item had sought information about only one aspect. Double negatives, annoying and embarrassing questions had been avoided in the items.

The items had been arranged in such a manner that information from general to specific be collected from the students studying in the elementary schools. The items so prepared were shown to the experts in the field of education and suggestions about those items were incorporated and the redundant items were deleted. Thus, in this way
the interview schedule for students was prepared. The structure of the interview schedule for students was as under:

**Table 3.5: Number of items in the interview schedule for students related to various issues**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Issues</th>
<th>No. of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Regularity</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Effectiveness</td>
<td>4</td>
</tr>
<tr>
<td>3.</td>
<td>Impact on academic environment</td>
<td>3</td>
</tr>
<tr>
<td>4.</td>
<td>Quality</td>
<td>3</td>
</tr>
<tr>
<td>5.</td>
<td>Quantity</td>
<td>1</td>
</tr>
<tr>
<td>6.</td>
<td>Community participation</td>
<td>0</td>
</tr>
<tr>
<td>7.</td>
<td>Community response</td>
<td>5</td>
</tr>
<tr>
<td>8.</td>
<td>Management</td>
<td>6</td>
</tr>
<tr>
<td>9.</td>
<td>Social unity</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>26</strong></td>
</tr>
</tbody>
</table>

**3.1.3.2.3.1 Preliminary try out of the interview schedule for students:**

First draft of the interview schedule was given to the students of five elementary schools. The purpose of this try out was to get feedback regarding the suitability of items in terms of language, content, clarity and understanding etc.

It helped the investigator in modification, alteration, addition or deletion of certain items. After that, the final draft of interview schedule for students had been prepared.
3.1.3.2.3.2 Validation of the interview schedule for students:

Validation is essential for the effective use of any data gathering tool. A data collection tool is said to be valid when it collects the same information what it claims to collect.

The content validity of the interview schedule for students was established by showing it to the experts in the field. The draft of interview schedule was properly checked and modified as suggested by the experts of aforesaid concerned field.

3.1.3.2.3.3 Reliability of the interview schedule for students:

A data collection tool must be reliable i.e. it must have ability to consistently yield the same results when repeated measurements are taken of the same individuals under the same conditions.

The test-retest method was used to carry out reliability of the interview schedule for students. The final draft of the interview schedule meant for students was given to five students of different elementary schools and the responses were recorded. After one month the same interview schedule was again given to the same students. The responses given by the respondents in the second administration had been compared with that of the first and it was inspected that whether the responses were nearly similar to the first. That was how the reliability of the interview schedule for students was established.

3.1.3.2.4 Development of the interview schedule for parents:

To get the community response from the parents, a special interview schedule was prepared. Before the development of this interview schedule, related literature on Mid-Day Meal Scheme of government of India and the problems of its implementation was reviewed.
The content of the schedule was developed in such a way so as to motivate the respondents to provide the required information. Items were framed in such a way as brought out the necessary information about the following issues and problems:

1. Reason behind choosing government school for the education of their child
2. Satisfaction with the provision of cooked meals under Mid-Day Meal Scheme
3. Frequency of providing Mid-Day Meal per week
4. Child’s liking about Mid-Day Meal Scheme
5. Mid-Day Meal Scheme and regularity of their child
6. Mid-Day Meal Scheme and economic benefit to parents
7. Quantity of meal served under the scheme
8. Quality of meal served under the scheme
9. Variety of meal served under the scheme
10. Parents’ participation in Mid-Day Meal Scheme
11. Meals provided under Mid-Day Meal Scheme and fulfillment of children’s need for food
12. Mid-Day Meal Scheme and academic achievement of students
13. Mid-Day Meal Scheme and pupils habits related to health and hygiene
14. Mid-Day Meal Scheme and truancy among the children
15. Mid-Day Meal Scheme and social unity
16. Mid-Day Meal Scheme and health of pupils

Moreover the items for the Interview Schedule for parents were framed in such a manner so that maximum information could be elicited from the respondents. Further, attempt was made to keep the items in the interview schedule as precise as possible and
at the same time unambiguous and clear. Each item sought information about only one aspect. Double negatives, annoying and embarrassing questions were avoided in the items.

The items were arranged in such a manner that information from general to specific could be collected from the parents of students studying in the elementary schools. The items so prepared were shown to experts in the field of education and suggestions about those items were incorporated and the redundant items were deleted. Thus, in that way the interview schedule for parents was prepared. The structure of the interview schedule for parents was as under:

Table 3.6: Number of items in the interview schedule for parents related to various issues

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Issues</th>
<th>No. of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Regularity</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Effectiveness</td>
<td>6</td>
</tr>
<tr>
<td>3.</td>
<td>Impact on academic environment</td>
<td>2</td>
</tr>
<tr>
<td>4.</td>
<td>Quality</td>
<td>4</td>
</tr>
<tr>
<td>5.</td>
<td>Quantity</td>
<td>1</td>
</tr>
<tr>
<td>6.</td>
<td>Community participation</td>
<td>1</td>
</tr>
<tr>
<td>7.</td>
<td>Community response</td>
<td>5</td>
</tr>
<tr>
<td>8.</td>
<td>Management</td>
<td>2</td>
</tr>
<tr>
<td>9.</td>
<td>Social Unity</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>26</strong></td>
</tr>
</tbody>
</table>
3.1.3.2.4.1 Preliminary try out of the interview schedule for parents:

First draft of the interview schedule was given to the parents of students of five elementary schools. The purpose of this try out was to get feedback regarding the suitability of items in terms of language, content, clarity and understanding etc.

It helped the investigator in modification, alteration, addition or deletion of certain items. After that, the final draft of interview schedule for parents was prepared.

3.1.3.2.4.2 Validation of the interview schedule for parents:

Validation is essential for the effective use of any data gathering tool. A data collection tool is said to be valid when it collects the same information what it claims to collect.

The content validity of the interview schedule for parents was established by showing it to the experts in the field. The draft of interview schedule was properly checked and modified as suggested by the experts of aforesaid concerned field.

3.1.3.2.4.3 Reliability of the interview schedule for parents:

A data collection tool must be reliable i.e. it must have ability to consistently yield the same results when repeated measurements are taken of the same individuals under the same conditions.

The test-retest method was used to carry out reliability of the interview schedule for parents. The final draft of interview schedule meant for parents was given to five parents of students of different elementary schools and the responses were recorded. After one month the same interview schedule was again given to the same students. The responses given by the respondents in the second administration were compared with that of the first and it had been inspected that whether the responses were nearly similar
to the first. That was how the reliability of the interview schedule for parents was established.

3.1.3.2.5 Development of the interview schedule for cooks:

To get the community response from the cooks, a special interview schedule was prepared. Before the development of this interview schedule, related literature on Mid-Day Meal Scheme of government of India and the problems of its implementation was consulted.

The content of the schedule had been developed in such a way so as to motivate the respondents to provide the required information. Items were framed in such a way as brought out the necessary information about the following issues and problems:

1. Cook’s liking about the job of cooking meals for school
2. Cook’s total experience of cooking
3. Appointment of cooks
4. Daily wages of cooks
5. Frequency of providing Mid-Day Meal per week
6. Quality of meal served under the scheme
7. Quantity of meal served under the scheme
8. Variety of meals cooked under the scheme
9. Nutrient value of meal served under the scheme
10. Time taken for cooking and serving of meals
11. Steps followed for cooking
12. Supervision of implementation of scheme
13. Punctuality of agencies involved in Mid-Day Meal Scheme
14. Availability of infrastructure including kitchen, water supply and adequate storage space.

15. Availability of man power

16. Nature of fuel

17. Arrangement of inadequate resources for cooking and serving of meals

Moreover the items for the Interview Schedule for cooks were framed in such a manner so that maximum information could be elicited from the respondents. Further, attempt had been made to keep the items in the interview schedule as precise as possible and at the same time unambiguous and clear. Each item sought information about only one aspect. Double negatives, annoying and embarrassing questions were avoided in the items.

The items were arranged in such a manner that information from general to specific could be collected from the cooks cooking in the elementary schools. The items so prepared were shown to experts in the field of education and suggestions about those items had been incorporated and the redundant items were deleted. Thus, in that way the interview schedule for cooks was prepared. The structure of the interview schedule for cooks was as under:
Table 3.7: Number of items in the interview schedule for cooks related to various issues

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Issues</th>
<th>No. of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Regularity</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Quality</td>
<td>4</td>
</tr>
<tr>
<td>3.</td>
<td>Quantity</td>
<td>3</td>
</tr>
<tr>
<td>4.</td>
<td>Cooking management</td>
<td>21</td>
</tr>
<tr>
<td>5.</td>
<td>Community Participation</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>32</strong></td>
</tr>
</tbody>
</table>

**3.1.3.2.5.1 Preliminary try out of the interview schedule for cooks:**

First draft of the interview schedule was given to the cooks of five elementary schools. The purpose of this try out was to get feedback regarding the suitability of items in terms of language, content, clarity and understanding etc.

It helped the investigator in modification, alteration, addition or deletion of certain items. After that, the final draft of interview schedule for cooks was prepared.

**3.1.3.2.5.2 Validation of the interview schedule for cooks:**

Validation is essential for the effective use of any data gathering tool. A data collection tool is said to be valid when it collects the same information what it claims to collect.

The content validity of the interview schedule for cooks was established by showing it to the experts in the field. The draft of interview schedule was properly checked and modified as suggested by the experts of aforesaid concerned field.
3.1.3.2.5.3 Reliability of the interview schedule for cooks:

A data collection tool must be reliable i.e. it must have ability to consistently yield the same results when repeated measurements are taken of the same individuals under the same conditions.

The test-retest method was used to carry out reliability of the interview schedule for cooks. The final draft of interview schedule meant for cooks was given to five cooks of different elementary schools and the responses were recorded. After one month the same interview schedule was again given to the same cooks. The responses given by the respondents in the second administration were compared with that of the first and it was inspected that whether the responses were nearly similar to the first. That was how the reliability of the interview schedule for cooks was established.

3.1.4 Case Studies:

To study the working of Mid-Day Meal Scheme in Bathinda District of Punjab, case studies of 10 primary schools selected from different blocks were conducted, with the help of a self developed observational schedule, as per the following sample:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Block</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Bathinda</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2.</td>
<td>Mandi Phul (East)</td>
<td>_</td>
<td>1</td>
</tr>
<tr>
<td>3.</td>
<td>Mandi Phul (West)</td>
<td>1</td>
<td>_</td>
</tr>
<tr>
<td>4.</td>
<td>Nathana</td>
<td>1</td>
<td>_</td>
</tr>
<tr>
<td>5.</td>
<td>Sangat</td>
<td>_</td>
<td>1</td>
</tr>
<tr>
<td>6.</td>
<td>Talwandi Sabo</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>5</strong></td>
<td><strong>5</strong></td>
</tr>
</tbody>
</table>
Since ‘the case study is a way of organizing social data for the purpose of viewing social reality. It examines social unit as a whole. The unit may be a person, family, a social group, a social institution or a community. The purpose is to understand the life cycle or an important part of the life cycle of the unit. The case study probes deeply and analysis interaction between the factors that explain present status or the influence, change or growth’ (Best and Kahan 2003:49). Therefore these case studies helped in painting a wholesome picture of the working of Mid-Day Meal Scheme at the primary school level in the Bathinda District.

3.1.4.1 Development of the Observational Schedule:

In order to conduct the case studies of ten schools of Bathinda District an observation schedule had been constructed and standardized by the investigator herself. For this purpose the investigator had reviewed the available literature related to norms and instructions regarding the implementation of Mid-Day Meal Scheme in primary schools. Observation schedule had been prepared to seek information about the following:

a. Availability of Infrastructure

b. Availability of manpower

c. Quality of meals served

d. Quantity of meals served

e. Management of scheme

f. Effectiveness of scheme

g. Problems faced in the implementation of scheme

h. Community participation
i. Head teachers’, teachers’, cooks’ and stakeholders’ response towards scheme

Then opinions of the experts about the observation schedule were sought after discussing the objectives of the research study with them. The suggestions given by the experts about various items of the schedule were incorporated. After this a preliminary tryout of this schedule was carried out.

3.1.4.2 Preliminary tryout of the Observation Schedule:

Preliminary try-out of the Observation Schedule was carried out in two primary schools to get feedback regarding the suitability of items of various components, language and content. The preliminary try-out of the observation schedule helped the investigator to revise, modify and alter the items as per requirements. All the relevant, impractical and ambiguous items were modified or deleted and new adequate items were added. Thus the final draft of the observation schedule was prepared which was used to conduct the case studies in the following institutions, in order to get a wholesome picture of the practical aspects of Mid-Day Meal Scheme. (The final draft of observation schedule have been appended with the thesis in the form of Appendix VI):

1. Government Elementary Girls School, Bathinda. (Block: Bathinda)
2. Government Elementary School Guru Ki Nagri, Bathinda. (Block: Bathinda)
3. Government Elementary School Chandsar Basti, Bathinda. (Block: Bathinda)
4. Government Elementary School, Bhokhra. (Block: Bathinda)
5. Government Elementary School, Talwandi Sabo. (Block: Talwandi Sabo)
6. Government Elementary School, Jeevan Singh Wala. (Block: Talwandi Sabo)
7. Government Elementary School, Sangat Kala. (Block: Sangat)
8. Government Elementary School, Bhucho Khurd. (Block: Nathana)
9. Government Elementary Boys School, Phul East. (Block: Mandi Phul East)

10. Government Elementary School, Rampura Village. (Block: Mandi Phul West)

3.2 CONDUCT OF THE STUDY:

1. To study the historical and policy perspectives of Mid-Day Meal Scheme the sources of literature containing the history of school meal programmes in various parts of the world and states of India and various policy documents were scrutinized to cull out the relevant theoretical and empirical observations.

2. To collect the secondary data for trend analysis, the investigation herself visited the State Mid-Day Meal Cell sector 34A, Chandigarh, DEO office, Bathinda. Mid-Day Meal Cell, Bathinda and B.P.E.O. offices of all the six educational blocks of the district.

3. To get the views and perceptions of respondents the investigator personally visited and interviewed the various subjects as stated in the sampling.

4. To conduct the case studies of ten primary schools the self constructed ‘observational schedule’ was used. The investigator had personally visited these schools and remained present during the preparation and distribution of meals to collect the detailed information regarding various aspects of Mid-Day Meal Scheme.

3.3 ANALYSIS OF DATA:

1. The quantitative data depicting the Gross Enrolment Ratio (GER), Net Enrolment Ratio (NER), Gender Gap and Drop-Out Rate which were available in various secondary sources were analysed with the help of statistical tables and drawing of line graphs and bar graphs, etc.
2. The technique of ‘content analysis’ was used to study the views and perceptions of different group of subjects namely head teachers, teachers, parents, students and cooks with regard to the various issues related to Mid-Day Meal Scheme (already stated). Further, ‘percentage analysis’ of views and perceptions given by the respondents was done and presented in the form of statistical tables and results were discussed.

3. The qualitative data collected through the observation schedule for conducting case studies of 10 schools was logically arranged to bring out a wholesome picture of the implementation of Mid-Day Meal Scheme in the primary schools of Bathinda District.