CHAPTER III

Research Design & Procedure

Research design and procedure is extremely essential part of the study since it describes the procedure for conducting the investigations in a scientific approach. The rationale of a research design is to provide the most valid, accurate answer to research questions. Since there are numerous types of research questions and accordingly various types of design, the present chapter attempts an exposition of the research design and methodology employed by the investigator with a view to select subjects, research sites, tools for data collection, to analyze data and to draw conclusions for realizing the objective of the present study. The detailed description of research design is presented in this chapter.

3.1 Objectives

1. To study the impact of mid day meal program on enrolment of the students from class I to V from (2005-2010) with respect to
   a) Gender (Boys/Girls)
   b) Locale (Rural/Urban)

2. To study the impact of mid day meal program on retention of the students from class I to V from (2005-2010) with respect to
   a) Gender (Boys/Girls)
   b) Locale (Rural/Urban)

3. To study the perception of the students, teachers, and parents towards the mid day meal program

3.2 Hypotheses

1. Mid day meal program will help in significant increase in enrolment of the students from class I to V from (2005-2010) with respect to gender (Boys/Girls)

   1.1 Mid day meal program will help in significant increase of boy’s enrolment from class I to V (2005-2010).

   1.2 Mid day meal program will help in significant increase of girl’s enrolment from class I to V (2005-10).
1.A Mid day meal program will help in significant increase in enrolment of the students of class I (2005-10).

1.B Mid day meal program will help in significant increase in enrolment of the students of class II (2005-10).

1.C Mid day meal program will help in significant increase in enrolment of the students of class III (2005-10).

1.D Mid day meal program will help in significant increase in enrolment of the students of class IV (2005-10).

1.E Mid day meal program will help in significant increase in enrolment of the students of class V (2005-10).

2. Mid day meal program will help in significant increase in enrolment of the students from class I to V from (2005-2010) with respect to locale (Rural/Urban)

2.1 Mid day meal program will help in significant increment in enrolment of rural students of class I to V (2005-2010)

2.2 Mid day meal program will help in significant increment in enrolment of urban students of class I to V (2005-2010)

2.1.1 Mid day meal program will help in significant increment in enrolment of rural boys of class I to V (2005-2010)

2.1.2 Mid day meal program will help in significant increment in enrolment of rural girls of class I to V (2005-2010)

2.2.1 Mid day meal program will help in significant increment in enrolment of urban boys of class I to V (2005-2010)

2.2.2 Mid day meal program will help in significant increment in enrolment of urban girls of class I to V (2005-2010)

3. Mid day meal program will help in significant increase in retention of the students from class II to V from (2005-2010) with respect to gender (Boys/Girls)

3.1 Mid day meal program will help in significant increase in retention of boys from class II to V (2005-2010).
3.2 Mid day meal program will help in significant increase in retention of girls from class II to V (2005-2010).

3.A Mid day meal program will help in significant increase in retention of the students of class II (2005-10).

3.B Mid day meal program will help in significant increase in retention of the students of class III (2005-10).

3.C Mid day meal program will help in significant increase in retention of the students of class IV (2005-10).

3.D Mid day meal program will help in significant increase in retention of the students of class V (2005-10).

4. Mid day meal program will help in significant increase in retention of the students from class II to V from (2005-2010) with respect to locale (Rural/Urban)

4.1 Mid day meal program will help in significant increment in retention of rural students of class II to V (2005-2010)

4.2 Mid day meal program will help in significant increment in retention of urban students of class II to V (2005-2010)

4.1.1 Mid day meal program will help in significant increment in retention of rural boys of class II to V (2005-2010)

4.1.2 Mid day meal program will help in significant increment in retention of rural girls of class II to V (2005-2010)

4.2.1 Mid day meal program will help in significant increment in retention of urban boys of class II to V (2005-2010)

4.2.2 Mid day meal program will help in significant increment in retention of urban girls of class II to V (2005-2010)

5. The perception of the students, teachers, and parents towards mid day meal program will be positive and favorable.

3.3 Operational Definition of the Variables

Enrolment: - Enrolment means the official recording of the entrance of students in a
particular school. In the present study, enrolment means admission of students as a regular candidate in primary classes (I-V).

**Retention:** According to Merriam Webster (an Encyclopedia) the meaning of retention is “to continue, to use, to hold or to have”. In the present study retention means the number of years of retention of the primary stage learners (I-V class) in the primary classes.

**Primary Stage learners:** Primary stage learners mean the students which are learning at primary level of schools. In the present study, learners who are learning from I to V classes in primary schools are taken as primary stage learners.

**Mid Day Meal Program:** National program of Nutritional Support to Primary Education (commonly known as mid day meal program today) is the largest school nutritional program in the world covering nearly 12 crore children in more than 9.5 lakh primary schools/Education Guarantee Scheme (EGS)/Alternative and Innovative Education (AIE) centers. The program provides a hot cooked meal of a minimum 450 calories and 12 gm of protein. Researcher consider all the cooked and non cooked (Dry food like biscuits and fruits) food as a mid day meal which were provided by the schools in the lunch hour at primary level.

**Impact of Mid Day Meal Program:** In the present study the meaning of impact of mid day meal program means increase of enrolment and retention of the primary stage learners. In the present study researcher will take 2004 as a base session for the session 2005 and further the preceding sessions taken for the comparison of following successive sessions.

The perception of the teachers, parents and students towards mid day meal program is also taken as an impact of the mid day meal program.

### 3.4 Population

Population in the educational research refers to all the numbers of real or hypothetical set of people, events or objectives, to which one wish to generalize as the results of research. The population may be infinitely large or finite.

According to Groves “Population means, the entire mass of observation which is the parent group, from which a sample is to be formed i.e. when the population are infinitely large, sample is selected from the population with which the researcher has to work.”
The sample observations provide only an estimate of the population characteristics. The term population or universe conveys a different meaning than the traditional one. In census survey the count of individuals (men, women and children) is known as population. But in research methodology, population means the characteristics of a specific group.

In the present study, the population comprises only government, primary and elementary schools of Raebareli district of Uttar Pradesh.

3.5 Sample

Sample is the selected chosen part, which is used to determine the features of the entire population. According to Moore “Sampling is concerned with the selection of a subset of individuals from within a statistical population to estimate characteristics of the whole population. Acceptance sampling is used to determine if the production of lot of material meets the governing specifications.”

Sample may be defined as the selection of some part of an aggregate or totality on the basis of judgment or inference about the aggregate or totality is made. In other words, it is the process of obtaining information about an entire population by examining only a part of it. While choosing and selecting a sample, the population is assumed to be composed of individual units or members, some of them are included in the sample. Sample should be the true representation of population characteristics without any bias so that it may result in valid and reliable conclusions.

Two advantages of sampling are that the cost is lower and data collection is faster than measuring the entire population. There are two types of sampling techniques-

1. Probability sampling
2. Non probability sampling

1. Probability sampling

According to Grooves “A probability sampling is one in which every unit in the population has a chance (greater than zero) of being selected in the sample, and this probability can be accurately determined. The combination of these traits makes it possible to produce unbiased estimates of population totals, by weighting sampled units according to their probability of selection.”
Probability sampling includes Simple Random Sampling, Systematic Sampling, Stratified Sampling, Probability Proportional to Size Sampling, and Cluster or Multistage Sampling.

*Random sampling

According to Sahu “In a simple random sampling (SRS) of a given size, all such subsets of the frame are given an equal probability. Each element of the frame thus has an equal probability of selection: the frame is not subdivided or partitioned. Furthermore, any given pair of elements has the same chance of selection as any other such pair (and similarly for triples, and so on).”

This minimizes bias and simplifies analysis of results. In particular, the variance between individual results within the sample is a good indicator of variance in the overall population, which makes it relatively easy to estimate the accuracy of results.

It is one of the techniques in which each element of the population has an equal and independent chance of being included in the sample. In this, every number has an equal and greater than zero chance of being picked up.

2. Non probability sampling

According to Grooves “Non probability sampling is any sampling method where some elements of the population have no chance of selection (these are sometimes referred to as ‘out of coverage’/’under covered’), or where the probability of selection can’t be accurately determined. It involves the selection of elements based on assumptions regarding the population of interest, which forms the criteria for selection.”

Hence, because the selection of elements is nonrandom, non probability sampling does not allow the estimation of sampling errors. Non probability sampling methods include accidental sampling, quota sampling and purposive sampling.

*Purposive sampling

According to Moore “It is selected by some arbitrary method because it is known to be the representative of the total population. It is appropriate in a study which lays special emphasis on the control of certain specific values.”
In the present study the investigator used both random and purposive sampling technique to select the sample. Uttar Pradesh is one of the biggest state in India. There are 75 districts in this state. Raebareli is one of them. Raebareli district has its own political influence on Indian politics as a political bastion of the Nehru-Gandhi Nationalist family. That’s why the researcher has purposively selected Raebareli district of Uttar Pradesh. In Raebareli the mid day meal program has been running in 21 blocks. The description of the Blocks and their respective number of schools are as-

**The list of Primary Schools (Block wise) in which mid day meal program is running**

*Source: Official report of block development officer of Rahi block (2010-11)*

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of Block</th>
<th>No. of Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rahi</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>Amawa</td>
<td>104</td>
</tr>
<tr>
<td>3</td>
<td>Deeh</td>
<td>07</td>
</tr>
<tr>
<td>4</td>
<td>Bahadurpur</td>
<td>51</td>
</tr>
<tr>
<td>5</td>
<td>Harchandpur</td>
<td>82</td>
</tr>
<tr>
<td>6</td>
<td>Bachrawa</td>
<td>83</td>
</tr>
<tr>
<td>7</td>
<td>Shivgarh</td>
<td>79</td>
</tr>
<tr>
<td>8</td>
<td>Maharajganj</td>
<td>84</td>
</tr>
<tr>
<td>9</td>
<td>Tiloi</td>
<td>89</td>
</tr>
<tr>
<td>10</td>
<td>Singhpur</td>
<td>80</td>
</tr>
<tr>
<td>11</td>
<td>Chatoh</td>
<td>54</td>
</tr>
<tr>
<td>12</td>
<td>Dalmau</td>
<td>97</td>
</tr>
<tr>
<td>13</td>
<td>Satav</td>
<td>87</td>
</tr>
<tr>
<td>14</td>
<td>Rohnia</td>
<td>33</td>
</tr>
<tr>
<td>15</td>
<td>Unchahar</td>
<td>65</td>
</tr>
<tr>
<td>16</td>
<td>Jagatpur</td>
<td>49</td>
</tr>
<tr>
<td>17</td>
<td>Sareni</td>
<td>14</td>
</tr>
<tr>
<td>18</td>
<td>Lalganj</td>
<td>94</td>
</tr>
<tr>
<td>19</td>
<td>Khiro</td>
<td>102</td>
</tr>
<tr>
<td>20</td>
<td>Salon</td>
<td>96</td>
</tr>
<tr>
<td>21</td>
<td>Goura</td>
<td>57</td>
</tr>
</tbody>
</table>
Researcher purposively selected Rahi block, as it is a big block as well as the block comprises 100 schools in which rural and urban students are covered. All 100 schools of Rahi block are selected as a sample to collect primary stage learner’s enrolment and retention data.

To study the perception of Teachers, Students and Parents the researcher has used random sampling technique. In order to study the perception of teachers, students and parents towards mid day meal program, 200 teachers, 600 students and 1200 parents were selected randomly from schools.

To conduct the perception scale, which was designed for the teachers, students and parents, 50 schools were selected randomly to conduct the scale for teachers and 4 for teachers (total 200) from each selected school. For students, 30 schools were selected randomly and 20 students (600) from each school were selected and for parents, 60 schools were selected and 20 parents from each school (total 1200) were selected as a sample.

Description of sample is given below-

**Selected Sample of Teachers, Parents and Students for their Perceptions**

<table>
<thead>
<tr>
<th></th>
<th>Randomly selected Schools</th>
<th>Sample From each school</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers</td>
<td>50</td>
<td>4</td>
<td>200</td>
</tr>
<tr>
<td>Students</td>
<td>30</td>
<td>20</td>
<td>600</td>
</tr>
<tr>
<td>Parents</td>
<td>60</td>
<td>20</td>
<td>1200</td>
</tr>
</tbody>
</table>

**3.6 Method of Study**

The choice of the method of research is determined by the nature of the problem. There are two types of research methods, Historical methods and Descriptive methods.

According to Moore “Descriptive methods can tell us about what exists at present by determining the nature and degree of existing conditions, because of the method’s apparent ease and directness.” Descriptive method has undoubtedly been the most popular and most
widely used research method in education. Descriptive research in education helps to explain educational phenomena in terms of the condition or relationship that exist, opinions that are given by the students, teachers, parents and experts, processes 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, descriptive survey is the only means through which opinions, attitudes, suggestions for improvement of educational practices and instruction and other data can be obtained.

The descriptive investigations are of immense value in solving the problems about children, school, organization, supervision and administration, curriculum teaching methods and evaluation. There are a number of questions that arise concerning these aspects of education; for example what kind of curriculum do people really want for their children to have at the secondary school stage or at the college level? Such information is useful to teachers and administrators and in understanding the existing educational problems and also in suggesting ways of melting them.

The descriptive type of research is useful in the development of data gathering instruments and tools like checklists, questionnaire, schedules and rating scales. It also provides the background ideas and data from which many more refined and controlled studies of casual relations are made.

Survey studies are a type of descriptive research. Survey studies may take different forms depending upon the scope, nature and purpose of the problem under investigation. They may be broad or narrow in scope. Some surveys encompass several countries, states or regions; or may be limited to one country, region, state, district, tehsil, city, school system or some other unit. Survey data may be collected from every unit of a population or from a representative sample. The information gathered may be concerning a large number of related factors confined to a few selected items. Survey studies describe and specify the properties of educational phenomena. They include school survey, job analysis, public opinion survey and social survey.

This study is based on survey method of research. This method answers the questions of real facts with regard to existing conditions. Surveys are used frequently in educational research to describe attitudes, beliefs or opinions and other type of information. The survey method gathers data from a relatively large number of cases at a particular time usually the
research is designed so that information about a large number of people (population) can be inferred, from the responses obtained from a smaller group of subjects (sample). Survey can describe the frequency of demographic characteristics of the traits held, explore relationships between different factors or delineate the reasons for popular practices.

Survey is an important type of study. It involves a clearly defined problem and definite objectives. It requires experts and imaginative planning, carefully analysis and interpretation of the data gathered, and logical and skillful reporting of the findings. It does not aspire to develop an organized body of scientific laws but provides information useful to the solution of the problem. The techniques employed in survey usually are questionnaire, checklist, record studied, observation, interview etc. In this study researcher had used self constructed perception scale and interview techniques for data collection.

3.7 Sources of Data

There were two types of sources of data,

1. Primary sources of data

Primary sources of data are eyewitness accounts. They are reported by an actual observer or participant in an event. In present study primary sources of data were

a. Principals and Teachers of Primary schools.

b. Students of primary classes.

c. Parents of studying students

2. Secondary sources of data

Secondary sources of data are the reports of a person who relate the testimony of an actual witness of, or participant in an event. In present study secondary soure of data were

a. District Education Officers (DEO)

b. Block Elementary Education Officer (BEO)

c. Records of school offices.

3.8 Construction and Description of Research Tools
To carry out any research, one has to collect the information that is relevant to research questions. A variety of research tools are developed to aid the researcher, in the acquisitions of information or data. Tools are the ways and means to conduct research which could only be justified through the methods and techniques meant for it. The collected evidences are called data and the tools used for this collected data are collecting devices and tools. Each tool is appropriate for collection of certain kinds of evidences and information and it is possible that researcher may examine the instrument or device for data collection.

These tools are of varied types and employ ways of describing and quantifying the data. The nature of research questions, objectives and hypotheses determine the selection of an appropriate tool. As per the objectives and hypotheses of the study, the researcher has used the following tools.

1. Data sheet of enrolment and retention

2. Perception scale for students, teachers and parents. (Self constructed)

3. Structured Interview guide

1. **Data sheet of enrolment and retention**

   Researcher prepared a data sheet tool to collect relevant data of enrolment and retention of primary stage learners of different schools.

   * Performa of prepared data sheet is attached in Appendix No. I & II

2. **Preparation of perception scale (For teachers)**

   For determining perception of teachers, in relation to the mid day meal, the researcher has taken eight dimensions related to dissimilar aspects of mid day meal program which she would like to evaluate. The eight dimensions were-

   **Dimensions of perception scale (For teachers)**

   1. MDM as wastage of time and resources
   2. MDM as a cause of timetable and teacher’s annoyance
   3. Amplify student’s attendance and enrolment
4. Consequence of MDM on teachers

5. Organization of documentation, storage of raw material, and equipments associated to MDM

6. Quality and quantity of MDM

7. Whether students consume MDM or reject

8. Conduct of accurate assessment

The details of the items related to various dimensions of mid day meal in perception scale (For teachers) are given below in table-

### Dimensions and No. of Items in Perception Scale (For Teachers)

**Table No. 5**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>S.No. of Concerned Statement</th>
<th>Total no. of Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. MDM as wastage of time and resources</td>
<td>1,9,17,25,33,41</td>
<td>6</td>
</tr>
<tr>
<td>2. MDM as a cause of timetable and teacher’s annoyance</td>
<td>2,10,18,26,34</td>
<td>5</td>
</tr>
<tr>
<td>3. Amplify student's attendance and enrolment</td>
<td>3,11,19,27,35,42,47</td>
<td>7</td>
</tr>
<tr>
<td>4. Consequence of MDM on teachers</td>
<td>4,12,20,28,36,43,48</td>
<td>7</td>
</tr>
<tr>
<td>5. Organization of documentation, storage of raw material, and equipments associated to MDM</td>
<td>5,13,21,29,37,44,49,50</td>
<td>8</td>
</tr>
<tr>
<td>6. Quality and quantity of MDM</td>
<td>6,14,22,30,38,45</td>
<td>6</td>
</tr>
<tr>
<td>7. Whether students consume MDM food or reject</td>
<td>7,15,23,31,39,46</td>
<td>6</td>
</tr>
<tr>
<td>8. Conduct of accurate assessment</td>
<td>8,16,24,32,40</td>
<td>5</td>
</tr>
</tbody>
</table>
This scale consists of 50 items out of which 29 items are favorable and 21 items are unfavorable. Serial No. of favorable and unfavorable items are given below.

**Serial Number of Favorable and Unfavorable Statements in Perception Scale (For Teachers)**

Table No. 5.1

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Types of items</th>
<th>Serial no. of statements in final scale</th>
<th>Total no. of statement</th>
<th>Percentage of statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Favorable</td>
<td>3,5,6,7,8,11,13,14,15,16,19,21,22,23,24,27,31,32,35,37,38,39,40,41,42,45,46,47,50</td>
<td>29</td>
<td>58%</td>
</tr>
<tr>
<td>2.</td>
<td>Unfavorable</td>
<td>1,2,4,9,10,12,17,18,20,25,26,28,29,30,33,34,36,43,44,48,49</td>
<td>21</td>
<td>42%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td></td>
<td>50</td>
</tr>
</tbody>
</table>

Respondents were asked to express their view in any five alternatives i.e. strongly agree, agree, undecided, disagree, strongly disagree by making tick mark (v) on the cell below that preferred response.

* Constructed Perception scale is attached in Appendix No. III

**Preparation of Perception Scale (For Students)**

For determining perception of students, in relation to mid day meal, the researcher had taken five dimensions related to dissimilar aspects of mid day meal program which she would like to evaluate. The five dimensions were-

**Dimensions of Perception Scale (For Students)**

1. MDM has variety and quality

2. MDM fulfills student’s satisfaction/ Quantity

3. Impact of MDM on attendance and retention in school

4. Participation of Parents, Teachers and administration
5. Suitable condition of hygiene, storage and serving utensils

The details of the items related to various dimensions of mid day meal in self constructed perception scale (For students) are given below in table-

Dimensions and No. of Items in Perception Scale (For Students)

Table No. 6.1

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>S.No. of statements</th>
<th>Total no. of statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. MDM has variety and quality</td>
<td>2,3,9,14,16,21,23,26,30</td>
<td>9</td>
</tr>
<tr>
<td>2. MDM fulfills student’s satisfaction/ Quantity</td>
<td>5,10,20,22,27,29,36,38,39</td>
<td>9</td>
</tr>
<tr>
<td>3. Impact of MDM on attendance and retention in school</td>
<td>1,6,8,12,15,17,25,28,33</td>
<td>9</td>
</tr>
<tr>
<td>4. Involvement of Parents, Teachers and administration</td>
<td>4,13,19,32,35,40</td>
<td>6</td>
</tr>
<tr>
<td>5. Proper condition of hygiene, storage and serving utensils</td>
<td>7,11,18,24,31,34,37</td>
<td>7</td>
</tr>
</tbody>
</table>

This scale consists of 40 statements out of which 27 statements are favorable and 13 statements are unfavorable. Serial No. of favorable and unfavorable items are given below.

Serial Numbers of Favorable and Unfavorable Items in Perception Scale (For Students)

Table No. 6.2

<table>
<thead>
<tr>
<th>S.No</th>
<th>Types of Items</th>
<th>Serial No. of Statements in Final Scale</th>
<th>Total No. of Statements</th>
<th>Percentage of Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Favorable</td>
<td>2,3,4,5,7,8,9,11,12,13,15,17,19,20,21,24,25,26,27,28,31,32,33,34,35,37,39,40</td>
<td>27</td>
<td>68%</td>
</tr>
<tr>
<td>2.</td>
<td>Unfavorable</td>
<td>1,6,10,14,16,18,22,23,29,30,34,36,38</td>
<td>13</td>
<td>32%</td>
</tr>
</tbody>
</table>

Total | 40
Respondents were asked to express their view in any five alternatives i.e. strongly agree, agree, undecided, disagree, strongly disagree by making tick mark (✓) on the cell below that preferred response.

* Constructed Perception scale is attached in Appendix No. IV

**Preparation of Perception Scale (For Parents)**

For determining perception of parents, in relation to mid day meal, the researcher had taken five dimensions related to dissimilar aspects of mid day meal program which she would like to evaluate. The five dimensions were-

**Dimensions of Perception Scale (For Parents)**

1. MDM has quality and quantity
2. Parents get attracted to school because of the satisfaction with MDM
3. Impact on physique of the child/ nutritional value
4. Increased in child’s study and interest in school
5. Involvement/ suggestion/review by parents

The details of the items related to various dimensions of mid day meal in self constructed perception scale (for parents) are given below in table,

**Dimensions and No. of Items in Perception Scale (For Parents)**

**Table No. 7.1**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>S.No. of Statement</th>
<th>Total no. of Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDM has quality and quantity</td>
<td>5,16,30,31,32,35</td>
<td>6</td>
</tr>
<tr>
<td>Parents get attracted to school because of the satisfaction with MDM</td>
<td>1,2,10,13,20,24,25,28,29</td>
<td>9</td>
</tr>
<tr>
<td>Impact on physique of the child/ nutritional value</td>
<td>6,11,14,17,26</td>
<td>5</td>
</tr>
<tr>
<td>Increased in child’s study and interest in school</td>
<td>3,12,15,18,22,23,27,33,34</td>
<td>9</td>
</tr>
<tr>
<td>Involvement/ suggestion/review by parents</td>
<td>4,7,8,9,19,21</td>
<td>6</td>
</tr>
</tbody>
</table>
This scale (for parents) consists of 35 statements out of which 26 statements are favorable and 9 statements are unfavorable. Serial No. of favorable and unfavorable items are given below.

**Serial Numbers of Favorable and Unfavorable Items in Perception Scale (For Parents)**

**Table No. 7.2**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Types of Items</th>
<th>Serial No. of Statement in Final Scale</th>
<th>Total No. of Statement</th>
<th>Percentage of Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Favorable</td>
<td>1,2,3,4,6,9,10,12,13,15,18,20,21,22,23,24,25,26,27,28,30,31,32,33,34,35</td>
<td>26</td>
<td>75%</td>
</tr>
<tr>
<td>2.</td>
<td>Unfavorable</td>
<td>5,7,8,11,14,16,17,19,29</td>
<td>9</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td></td>
<td>35</td>
</tr>
</tbody>
</table>

Respondents were asked to express their view in any five alternatives i.e. strongly agree, agree, undecided, disagree, strongly disagree by making tick mark (v) on the cell below that preferred response.

* Constructed Perception scale is attached in Appendix No. V

**Reliability & Validity of the Present Perception Scale**

Reliability is the degree of consistency that the instrument or procedure demonstrates, whatever it is measuring, it does so consistently. Reliability is a necessary but not sufficient condition for validity. Validity is that quality of a data gathering instrument or procedure that enables it to measure what it’s supposed to measure. A test may be reliable even though it is not valid. However for a test to be valid it must be reliable.

For framing the perception scale, researcher had gone through several books and magazines of education concerned with mid day meal program. These items of perception scale had written on the three separate sheets and the investigator had reviewed them. Initial drafting of the perception scale was prepared assembling the items and then they were handed over to experts i.e. five Professors of Education. Certain changes were made in the scale on the basis of the comments and suggestions and final draft was prepared.

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scale is thought to be valid for the purpose since it has been constructed carefully & desired changes were made.

**Scoring**

For the scoring of perception scale researcher had taken percentage of options (strongly agree, agree, undecided, disagree, strongly disagree) for each statement of different dimensions separately, ticked by teachers, students and parents. Following that researcher had made dimension table wise (statement wise) which showed percentage of each statement ticked by teachers, students and parents. Subsequently the researcher had prepared one additional table independently for teachers, students and parents which revealed the percentage of options (dimension wise) ticked by them. As auxiliary mentioned that every dimension had positive and negative statements, researcher had considered reversely count of options for negative and positive statements. For example if one stakeholder ticked option strongly disagrees for negative statement it shows his/her positive perception about that particular statement. Following this initiative researcher made one table comprising all dimensions of opinions of different stakeholders.

**Structured Interview**

The interview is in a sense of an oral questionnaire. Instead of writing the response, the subject or interviewer gives the needed information orally and face to face. A written outline, schedule or interview guide will provide a set plan for the interview. An open form question, in which the subject is encouraged to answer in his or her own words at some length, is likely to provide greater depth to response.

To know the perception of parents, teachers and students towards mid day meal program, the researcher had conducted interview of the parents, teachers and students. For this, she used an interview guide. For the conduct of interview guide, researcher took 50 samples (each) randomly of teachers, students and parents from primary schools of Rahi block.

**Preparation of Interview Guide**

To know the perception of teachers concerning mid day meal, researcher had conducted an interview at the same time while collecting data. To conduct the interview researcher made structured interview schedule. The interview scale included various dimension associated with mid day meal program. A few questions were not asked in
perception scale, as it is better to enquire verbally. Therefore researcher include some dimensions like supply of ration, mid day meal managing committee, preparation of food, distribution of food, facility of water, post lunch activity, monitoring and level of satisfaction through mid day meal in the interview schedule. Interview schedule for teachers comprised of 25 questions which were in the form of multiple choice and yes or no form.

For the interview of students researcher comprised dimension like menu of food, regularity, parents involvement, students involvement, retention in school after taking mid day meal and satisfaction with program. Interview schedule for students comprised of 20 questions which were in the form of multiple choice and yes or no form.

For the interview of parents, researcher had comprised dimensions like hygiene, impact of meal on their children’s health, concentration on study and satisfaction with program in the interview guide. Interview schedule for parents comprised of 22 questions which were in the form of multiple choice and yes or no form.

* Constructed Interview scadule is attached in Appendix No. VI-VIII

**Scoring**

In favor of the outcome of interview researcher had taken percentage of options of each question mark off by teachers, students and parents. Stakeholders scored higher which shows affirmative feedback against questions. Stakeholders which scored higher percentage through mark of affirmative questions in the interview had shown more positive perception towards effectiveness, impact of mid day meal on enrolment and retention and quality & quantity related to mid day meal as compared to the stakeholders who scored lower percentage.

**3.9 Research Procedure**

The researcher met with the District Education Officer (DEO) and appointment was taken with Block Elementary Education Officer (BEEO) of Rahi block of Raebareli district to collect relevant information about government primary schools in urban and rural areas where mid day meal is being served. They provide a list of schools in which location of the schools was given.

They also gave relevant information about the mid day meal program. The principals of the schools were contacted to seek their cooperation for collecting the data of the study. After exchanging greetings with head of the institutions, researcher explained the
purpose of study and asked to provide last six years admission register i.e. from 2004-2010 to collect enrolment and retention data.

Researcher took year 2004 as base year for the study. A self prepared enrolment data sheet was used to collect information from school documents. Raw data was changed into tabular form. For this, researcher made table for each variable separately. The collected data from the base year (2004) and successive years (2005-2010) was compared and analyzed and appropriate statistics were applied to draw the conclusion.

Perception scale was prepared to study perception of stakeholders (teachers, students and parents). Separate scale was distributed to teachers, parents and students to obtain their perception about impact of mid day meal on enrolment and retention. The purpose of the study was explained to them. They were assured that their responses would be kept confidential and would be used for research purpose only. The researcher told them to fill correct information.

To study the impact of interaction and to throw light on the depth of the research work the researcher conducted interview of the primary stage learners, parents and teachers regarding their perception towards mid day meal program, few objective type and short answer type questions based on mid day meal were asked to small number of groups of teachers, students and parents. It was observed that through interviews many facts revealed about mid day meal program.

After collecting the data sheets of enrolment and retention, perception scale from teachers, students and parents, were scored on the basis of percentage system. The result of perception scale and interview was analyzed. The interpretation about impact of mid day meal program was drawn.

3.10 Statistical Analysis of Data

The present study is based on qualitative and quantitative data. Quantitative data covers analysis of enrolment and retention. The data is analyzed by percentage, table and bar graph. To calculate enrolment and retention following formulas were used,
1. Enrolment

\[
\text{No. of students enrolled in a class} - \text{No. of student in a class in the succeeding year} \div \text{No. of students enrolled in a class in the preceding year} \times 100
\]

2. Retention

\[
\text{No. of students enrolled in next class} - \text{No. of student enrolled in a class in the next succeeding year} \div \text{No. of students enrolled in a class in the preceding year} \times 100
\]

Researcher used these formulas to analyzed raw data of enrolment and retention taken from class (I to V) from year 2005-10.

**Percentage**

Percentage is a short form of the Latin expression per centum ‘by the hundred’. The expression of data in terms of percentage is one of the simplest statistical devices used in the interpretation of business and economic status. Researcher used percentage analysis to analyze the perception of teachers, students and parents. The responses obtained from interview also analyzed through percentage.

**Graphical Representation**

Graphical representation is a technique which shows data in pictorial form. In this study firstly the researcher has changed the raw data i.e. (marks scored by the students, parents, students in scale) of teachers, students and parents regarding their perception towards mid day meal in percentage and then the data is analyzed and interpreted and show through Bar diagram.
3.11 Delimitations of the Study

The study had delimited to

1. The study had delimited to Rahi block of Raebareli district of Uttar Pradesh state only.

2. The study had covered only the government primary schools which provide mid day meal.

3. The study had covered only the impact of mid day meal on enrolment and retention of students studying in primary classes.

Data Analysis and interpretation are given in next chapter.