CHAPTER - III

- RESEARCH METHODOLOGY
- SAMPLE SELECTION
- RESEARCH TOOLS
- DEVELOPMENT OF TOOLS
- DATA COLLECTIONS PROCESS
RESEARCH METHODOLOGY

Conceptual Model of the Study

Pilot study to know the ground realities

Analysis of the curriculum to know the content

Designing of the tool

Review and analysis of the tool to know the content validity

Reliability of the Tool

Finalisation of the Tool

Administration of the tool on teachers

Administration of the tool on pupils at primary stage

Analysis of data

Analysis of data

Identification of misconception of the teacher

Administration of the tool on pupils at primary stage

Discussion about Training programme

Remedial teaching

Effective teaching learning process / Empowerment

Teacher Effectiveness
**SAMPLE SELECTION**

To find out the Impact of in-service training on qualities of education, it was felt that it has to be examined from various dimensions to get a comprehensive report. As such it was decided to include in the Sample the different categories of people involved in the formal education of the child.

The sample therefore consisted of the parents represented by the members of school education committees, teachers who are the main transmitters and play a pivotal role in teaching learning process, the administrator who are the link between the community and the school and the children who are the local element of the system.

Thus sample consisted of teachers of teachers (both trained-untrained; male female; more less experienced) and children of tribal, rural and urban schools and the school committee’s members of these schools.

As the study was covering a wide range of objective, it was decided to select the following numbers of primary schools and teachers randomly, specially in the remote and rural areas from each educational block of Kamrup Districts.
## Educational Block wise Schools and Teachers

<table>
<thead>
<tr>
<th>Educational Blocks</th>
<th>Number of Schools</th>
<th>Male</th>
<th>Female</th>
<th>Trained Teachers</th>
<th>Untrained Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rangia</td>
<td>18</td>
<td>20</td>
<td>16</td>
<td>26</td>
<td>10</td>
</tr>
<tr>
<td>Hajo</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Kamalpur</td>
<td>10</td>
<td>8</td>
<td>12</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Chhaygaon</td>
<td>8</td>
<td>10</td>
<td>6</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Boko</td>
<td>10</td>
<td>13</td>
<td>7</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>Rampur</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>Chamaria</td>
<td>14</td>
<td>20</td>
<td>8</td>
<td>16</td>
<td>12</td>
</tr>
<tr>
<td>Rani</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>Dimoria</td>
<td>15</td>
<td>18</td>
<td>12</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>Karara</td>
<td>10</td>
<td>11</td>
<td>9</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>Guwahati</td>
<td>10</td>
<td>15</td>
<td>25</td>
<td>25</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>140</strong></td>
<td><strong>150</strong></td>
<td><strong>130</strong></td>
<td><strong>166</strong></td>
<td><strong>114</strong></td>
</tr>
</tbody>
</table>
The sample thus included 280 teachers taking two from each school, 60 school's committee members, 50 Headmasters and the children of the classes handled by the teachers who are selected.
RESEARCH TOOLS

The development of tool consisted of five discernible steps:

TIER : i : (Study of ground realities)

TIER : ii : (Design and finalization of the tool)

TIER : iii : (Sample selection and administration of the tool)

TIER : iv : (Recording and analysis of data and result)

TIER : v : (Identification of intervention areas)

Conceptual framework to design the diagnostic tools:

<table>
<thead>
<tr>
<th>The Tools</th>
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</thead>
<tbody>
<tr>
<td>Questions involving the personal profile of the teacher</td>
</tr>
<tr>
<td>Questions involving the training of the teacher</td>
</tr>
<tr>
<td>Question on the contents/methods of teaching/classroom transaction etc</td>
</tr>
<tr>
<td>Questions on the technique to set question/evaluation</td>
</tr>
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</table>
DEVELOPMENT OF TOOLS

A. Professional skills scale: - With the help of discussions with experts in the field, twenty professional skills are identified as relevant for teacher empowerment. Eighty items are prepared on these twenty professional skills. These are examined by experts and administered on a try out sample of 100 teachers. After validation sixty four items are retained. The reliability co-efficient is computed by split half method and found to be highly reliable.

An observation checklist consisting of all the twenty professional skills have been prepared for class room observation.

B. Teacher motivation and class room practices scale. (Five point rating) The transactional strategies selected for the observation schedule were: Lecture (Direct presentation) Discussion, Demonstration and group work/ Activity.

C. Teacher Effectiveness scale

D. Teacher Attitudes Scale

E. Self made questionnaire -

- Teacher empowerment questionnaire
- Teacher effectiveness questionnaire
- Information blank i.e. personal, community, School environment etc.

Above questionnaires are made on basis of-

**At the context level** - teacher profiles, initial training of teachers, core goal / core curriculum, assessment and evolution Systems, types and duration of in-service training

**At the teacher level** - Procedures for the selection of materials and implementation of materials by grouping procedures and teacher behaviour.

**At the School level** - Classroom practices, educational leadership and in-service training and forms of intervention and coaching follow up mechanism etc.
DATA COLLECTION PROCESS

The sources of data corresponding to sub-problems mentioned earlier involved securing

➢ Pupil’s attitude towards teacher’s behaviour and teacher’s attitude in respect of various classroom teaching activities.

➢ Classroom observation ratings on various classroom teaching activities.

➢ Class achievement scores.

➢ Personal information and Bio-data of teachers.

➢ Observer’s (head Master/ others) opinion on teacher’s behaviour and performance.

➢ Teacher-pupils performance in different areas subject wise skills and concepts.

➢ Views of trained / untrained teacher in respect of training’s input and its effectiveness.

In the present study, the techniques employed to collect relevant data are the following ways-

▪ Structured interview

▪ Questionnaire

▪ Observation

▪ Inventory and tests.
The selected schools were visited by the field investigators. The classes of two teachers (in each school) were observed and the necessary information was noted down in the class-room perception schedule. The same teachers were interviewed about their perception of the training programme as per the teacher perception schedule after which they were given the academic awareness schedule. The available members of the school committee were interviewed and the responses were recorded in the school committee perception schedule.

The training material on mastery learning strategy (MLS) on selected competencies were developed, reviewed and tried out in two difference type of situations in urban and rural contents. In a two phased workshop with the help of teacher educators the following materials in teaching mathematics for the use of teacher on MLS were developed (a) MLS based teaching learning materials on content and selected competencies and (b) Materials on mastery learning strategy.

In addition, information was obtained from the professional organizations of teacher working towards the welfare of teachers. Discussions were held with officials in the education Department of District, State, Nation, Head masters of Schools and principals of training institutions and also experts in education associated with the organizations working in teacher education systems.