Chapter 3

Research Methodology
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Research methodology is an important part of any study. It guides the investigator to conduct the study systematically and thereby affects its outcome. The research methodology used for the present study is described below.

3.1 Title of the study
Development of a Module for Student Teachers to Shape their Attitude towards Community Work

This study has been undertaken with the following objectives in view.

3.2 Objectives of the study
1. To study the existing status of community-based programmes in secondary teacher education colleges
2. To prepare a community based programme module for student teachers of secondary teacher education colleges
3. To study the effectiveness of the prepared community based programme module
4. To suggest measures to incorporate community based learning in the B.Ed. curriculum

The major questions before the researcher were ‘Is Community work important for Student Teachers? And, how can Community Work become a fruitful endeavor in the B.Ed. course?’ Based on these basic questions in mind, the researcher prepared a module and accordingly, a null hypothesis was formulated. The same is mentioned below.
3.3 Hypothesis

The formulated a null hypothesis 'There exists no significant difference in the attitude of the student teachers towards community work and social responsibilities through the implementation of the module'.

Some of the important terms mentioned in the title of the study, hypothesis and related to the present research are operationalised below.

3.4 Operationalisation of the terms

The researcher has used some specific terms in the study. The researcher would like to specify the meaning of those terms with respect to the scope of the present study.

The primary terms concerned with the research are STs, Module, Attitude and Shape Attitude of STs.

1. **Student Teachers (STs):** The students of a College of Education (B.Ed. Class)
2. **Module:** The community based work is an implicit component of the practical work in B.Ed. course. The module consists of tasks as well as theoretical aspects. It aims at developing the ‘service- skills’ of the student teachers. The term module refers to the set of tasks prepared by the researcher. The task aims at sensitising STs towards community work and learning through community based work.
3. **Attitude:** It indicates the feeling and views of STs towards community and community work.
4. **Shape Attitude:** In the present study, the researcher is making an attempt to make STs understand the importance of community work and also understand their role in society as teachers. This refers to ‘STs’ willingness to work for the community/society’.

The researcher would also like to mention the meaning and scope of the following terms used in the study.
Secondary Teacher Education Colleges: This refers to the institutions offering the one year B.Ed. course.

Community work and social responsibilities: The profession of teaching is a service to the society. In this context the teacher has social responsibilities and is expected to fulfill them. In the present study the focus is on helping the community through academic support outside school hours (supplementary teaching for children of community) and confidence building programmes for women (literary camps and craft work).

Service Skills: Service skills refer to the skills required to work with the community.

Response sheet: An objective type test used to collect the scores of STs.

The terms related to the research are operationalised above.

The study aims at developing a module and evaluating its effectiveness vis-à-vis attitude of STs towards community work. Hence, the study is experimental in nature but simultaneous focuses on service learning and community work. This makes the study both qualitative and quantitative in nature. The nature of the study is further described below.

3.5 Nature of the study

The nature of the study is both qualitative as well as quantitative i.e. it uses the mixed method research (Hammersely, 1992).

The work done by the researcher lends itself to qualitative analysis to a great extent. Quantitative analysis is used to evaluate the effectiveness of the module, support the qualitative data and also illustrate the study numerically.

However, the design of the study is one group pre-test post test experimental method.

Research work is guided by inductive thinking. The researcher proceeds from specificity to generality. The sample observation is the specific situation, which are applied to the population, it is the general situation.
The population means the entire mass of observations, which is the parent group from which a sample is to be formed. The sample observations provide only an estimate of the population characteristics.

The description of the population and sample of the study are mentioned below.

3.6 Population

The population for the study comprised of all the Secondary Teacher Education Colleges i.e. B.Ed. Colleges affiliated to Sardar Patel University.

3.7 Sample

One secondary teacher education college (B.Ed.) was selected using the convenient sampling technique. The design of the study was one group pre test- post test quasi-experimental design.

The college selected for the present study was Waymade College of Education, Vallabh Vidya Nagar. The researcher selected the college because of the following reasons.

- The researcher herself is a faculty member at the college.
- The researcher has pursued her B.Ed. from the college and has herself undergone the community work – task during the year 2004-05.
- The researcher chose to work with the STs of Waymade College of Education so that she could observe the students, their work with community and other related interactions closely and throughout the academic year.
- The college is recognized for their concern for community and has undertaken extension programmes for the community.
- There are community members belonging to low socio-economic background living in Mahivas and Ambicavas settlements in the vicinity of the college.
Research tools help the researcher gather data. They help the researcher gather qualitative as well as quantitative data. The description of the research tools used for the present study is mentioned below.

3.8 Tools

The following tools were used for collecting data.

1. Questionnaire
A questionnaire is a form which is prepared and distributed for the purpose of securing responses.
A questionnaire was designed and used to collect data from teacher educators. The aim of the questionnaire was to obtain data regarding the practical activities related to community/field based work.

2. Focused Group Discussion (FGD)
FGD is a method of qualitative data collection where a small group of people are asked questions and the concerned issues/problems/aspects are discussed.
FGD was used to collect data from community members and student teachers. The data from the community with respect to their needs, their feedback about the work of student teachers as well as the effect of the module on student teachers was sought using FGD.

3. Field Diary
The researcher maintained field notes to record her field based observations. The interaction between the STs and community members as well as details of sessions related to the module components was noted.

4. Anecdotal records
Anecdotal records were used to collect empirical, experimental data from the respondents.

5. Pre test – Post test
The pre test and post test were used to get the numerical scores for statistical analysis.
3.9 Data collection

The investigator collected the data personally using the above-mentioned tools. The objectives, data required for the respective objectives, sources of data and tools used have been indicated in the table below.

Table Number 2 : Tools and Data Collection

<table>
<thead>
<tr>
<th>Objective</th>
<th>Data required</th>
<th>Sources of data</th>
<th>Tools used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective 1</td>
<td>Existing status of community based programmes in secondary teacher education colleges.</td>
<td>Teacher educators of secondary teacher education colleges.</td>
<td>Questionnaire</td>
</tr>
<tr>
<td>Objective 2</td>
<td>Preparation of Module</td>
<td>Community members Experts Student teachers Teacher Educators from Colleges of Education</td>
<td>Focused Group Discussion Questionnaire</td>
</tr>
<tr>
<td>Objective 3</td>
<td>Evaluate the effectiveness of community based programme module</td>
<td>Student teachers Community members Experts</td>
<td>Questionnaire Field Diary Anecdotal records pre test – post test</td>
</tr>
</tbody>
</table>

3.10 Data Analysis and Interpretation

The data obtained through questionnaire, Anecdotal records, Focused Group discussion (FGD) and field diary were analysed qualitatively using content analysis techniques (both ongoing day to day analysis as well as end-analysis were carried out).

The data gathered through pre-test and post-test were statistically analysed using t-test.
3.11 Duration of the study and steps

The study was spread over a span of three years beginning with the academic year 2008-09 and continuing until 2010-11.

Steps in the study

The study was spread over a span of three years. The details of the progress of study are mentioned in appendix 1. However a brief description of the stages is given below.

Stage 1: The researcher studied and reviewed related literature and strengthened the conceptual understanding.

Stage 2: The investigator studied the status of the existing community based programmes in secondary teacher education colleges affiliated to the Sardar Patel University in order to get the insights into the practical work related to community. A questionnaire for the same was shown to experts for validation. The teacher educators of all the B.Ed. Colleges affiliated to the Sardar Patel University responded to the questionnaire. The data collected were analysed using content analysis and thus the response to objective 1 was fulfilled. The data collected using the questionnaire was also considered by the researcher while preparing the module. This was mainly because the researcher intended to prepare a module suitable to the needs of the Teacher Education Colleges.

Stage 3: This stage included the following activities.

- A college was selected using the convenient sampling technique. (refer page 41, section 3.7)
- A community near the college was selected to administer the module components.
- A community based programme module was prepared and shown to experts. The suggestions of the experts were incorporated and thereby the module was finalised. (Appendix 2)

The module aimed at shaping the attitude of the pre-service teachers towards community work. The investigator designed the module contents keeping in focus the
Stage 4: A Pilot Study was conducted over a span of six months. A pre-test was administered on the student teachers. During the pilot study the STs worked with the children from the community (the module component B). By involving the STs directly in community work, the researcher tried to help the STs think critically as well as feel deeper vis-à-vis the situations faced by the members of the community and thereby influence the attitude of the STs.

But during the pilot study the researcher realised that the STs lacked sufficient understanding of their role in the society and their responsibilities as teachers. Based on the learning values of the pilot study the module was modified and the following components were arrived at. (Refer to appendix 2)

The investigator divided the module into two parts ‘Module Component A’ and ‘Module Component B’.

Module Component A was based on the needs of the student teachers (identified using the pre-test) and focused on developing insights into the social nature of the teaching profession. The components included the following components A1 to A4.

Component A 1: Impact of Teachers on Society

Component A 2: Preparing student teachers/ pre service teachers to partner with parents and community

Component A3: Meaning of Community

Component A4: FGD on Abraham Lincoln’s Letter to his son’s teacher

Module Component B was exclusively based on the needs of community (identified using the FDG for objective 2). The purpose of this module was to provide practical filed based experience to student teachers. The components include:

Component B1: Environmental Awareness

Component B2: Vocabulary Enrichment

Component B 3: Scientific concepts
Component B 4: Fun with Mathematics

Component B 5: Computer Fundamentals

Module component B was academic in nature based on the Gujarat State text books used by the children living in the community. The aim here was also to expose the STs to diversified learning and teaching styles. The multi-graded teaching approach is used for the components.

Stage 5: Modification of the Module and Validation

The modified module as already mentioned above was given to experts and their guidance was sought.

Stage 6: The Experiment was conducted. For this a pre-test was administered on the student teachers and the scores were obtained using an evaluation rubric. The treatment was given to the student teachers over a span of eight months. The investigator conducted both theoretical and practical sessions for the student teachers (as per the module components). A post test was conducted. This was followed by compilation of post test scores. Further, the effectiveness of the module was evaluated through:

- Views of student teachers before and after the module implementation phase. (Questionnaire, Anecdotal records and FGD tools used)
- Response of children from the community (FGD used )
- Response of experts (informal interaction during validation of tools)

Analysis of data collected through filed notes and filed diary

Stage 7: Data Analysis, Interpretation and Documentation.

The data sought were analysed using content analysis technique and t test.

The next chapter deals with analysis and interpretation of the data.