CHAPTER - III

METHODOLOGY
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3.1. Introduction

The different methods followed at various stages of this investigation are described below. The details of such methods of investigation includes the design of the study, development of tools, selection of sample, collection of data, selection and preparation of development messages and various statistical methods employed in the analysis of data are discussed in this chapter.

3.2. The Research Design

The present study aims to find out the impact of media on neo literates with reference to select variables and has been designed as an experiment. Following this, educational programme on health, population and environment issues were carried out using different approaches to neo-literates, i.e., the message disseminated by volunteer instructor (V.I), through oral communication method at Non-Community T.V. Centre, the message disseminated by Community Television and the message disseminated by CTV followed by V.I.

Here, in this study, the investigator has adopted field experimental method for which, the different groups were assigned with different treatments, the design of the present study is given in the following page.
Figure 3.2a. Flow Chart Showing the Design of the Study

- Selection of Post Literacy Centres
- Allocation of Control and Experimental Centres
  - Centre I
  - Centre II
  - Centre III
- Selection of Sample
- Selection of Contents
- Preparation of Tools
- Pre-test
  - Control Group
  - Experimental Group I
  - Experimental Group II
- Treatment
  - Group I → Volunteer Instructor Approach
  - Group II → Community TV Approach
  - Group III → Community TV followed by Volunteer Instructor Approach

Analysis & Interpretation of data
3.2.1. Selection of Post Literacy Centres (PLC's)

The investigator chose three post literacy centres in consultation with project coordinator of the Total Literacy Campaign of Tiruchirappalli District at random. The specific criterion measures considered for selection of centres are as follows.

i) Post literacy centres should consist of the neo-literates.

ii) Centres should function regularly in the selected villages.

iii) The enrolment of neo-literates is more than 30 in each centre.

iv) Materials for basic literacy/post-literacy are available at the centres.

v) Centres have the possibility of using village panchayat community T.V. Sets.

vi) The villages have common minimum facilities like primary health centres, Balwadies, primary schools, Panchayat buildings, electricity, Road and transport facilities and so on.

vii) The centres should have neo-literates of different age groups, sex, socio-economic status etc.
3.2.2. Allocation of Control and Experimental Groups

The present study has been conducted in the selected centres of Tiruchirappalli District namely, Panchappur, Kambarasanpettai and Illanthaipatti. The neo-literates who attended in the first centre were chosen as the control group and it was named as group I, the neo-literates who attended in the middle one were chosen as experimental group I and it was named as group II and the neo-literates who attended in the third centre were chosen as experimental group II and it was named as group III.

The details of identification and selection of control group and experimental groups are given in the following table.

Table 3.1: Identification and selection of Control group and experimental groups

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of the Centre</th>
<th>Nature of the group</th>
<th>Name of the Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Panchappur Literacy Centre</td>
<td>Control Group</td>
<td>Group I</td>
</tr>
<tr>
<td>2.</td>
<td>Kambarasanpettai Literacy Centre</td>
<td>Experimental Group - I</td>
<td>Group II</td>
</tr>
<tr>
<td>3.</td>
<td>Illanthaipatti Literacy Centre</td>
<td>Experimental Group - II</td>
<td>Group III</td>
</tr>
</tbody>
</table>
3.2.2.1. Equating the groups for Experimentation

Matching of groups is an important criteria in any experimental research. Since, the chosen subject of investigation is connected with neo-literates, it is very difficult to frame matched groups as adopted in conventional methods viz., I.Q., and other allied tests. The investigator adopted the below mentioned strategy after consulting the experts in order to form matched groups, i.e. all the groups as per table 3.1 were subjected to pre-test. When the pre-test scores were analysed by using appropriate statistical technique, it is found that all the groups gave non-significant result. It confirms that all the three groups were matched on the basis of their pre-test achievement scores.

Proper care also be taken by the investigator while selecting this subjects in all the three groups. These groups having the following characteristics.

- attained the skills of 3 R's as per NLM norms in the basic literacy phase.
- habituating in rural areas.
- similar age groups
- similar socio-economic status groups.

3.2.3. Selection of Volunteer Instructors (V.I's)

The Volunteer instructor is intended to cannote the idea of a person who acts as a motivator or who inspires others for learning. The success of the TLC/PLC depends mainly on distinguishing features of mass participation and voluntarism.
The volunteers came forward to teach illiterates, primary school dropouts, neo-literate voluntarily and expecting no return for the teaching work.

The term 'volunteer instructor' is an accepted and widely acknowledged terminology in the NLM documents.

The researcher with the help of area co-ordinators selected 3 volunteers for 3 centres chosen for the study by using the following criteria:

- must be dedicated to work at the field level in their respective villages.
- should be locally influential person.
- should have better educational qualifications.
- must have experience in literacy/post-literacy activities or social work activities.
- should be acceptable by the local people.
- should have leadership qualities.
- should have good communication.
- must have ability to handle groups.
- should possess knowledge and awareness of social and developmental issues.
should have adjustable, flexible and socially participated.

All the three selected V.I.'s satisfied the above conditions

3.2.4. Role of V.I.'s in the control and experimental groups

The neo-literate were exposed to V.I. without allowing to see TV. Therefore, this centre is called non-community TV centre (Group I). The following duties were assigned to V.I. of this group.

- presentation of a lesson during telecast time of the similar content areas.
- organisation of literacy /post-literacy activities for the remaining working hours.
- monitoring and preparation of evaluation reports.
- Have face to face contact with the neo-literates and interact them effectively during lesson presentation.

Community TV sets have been given to experimental group I and group II. The following duties were assigned to V.I.'s of these groups.
- operation and maintenance of community TV set, during the time of telecast.
- organisation of literacy / post literacy activities for the remaining working hours.
- monitoring and preparation of evaluation reports.
- mobilising the neo-literate to view the television programme.
- to interact with neo-literates during /after the delivery of the content.
- to supervise the discussion group after viewing the programme in TV without giving his comments (Group II).
- to supervise the discussion group after viewing the programme in TV and also participating it (Group III).

3.2.5. Enrolment of neo-literates

The neo-literates who were enrolled in the selected post-literacy centres were chosen for the study. These neo-literates had achieved the prescribed norms of reading, writing and arithmetic skills and it was verified by the investigator.

The number of neo-literates who have enrolled in each post literacy circle is shown in the following table.
Table 3.2  No. of neo-literates enrolled in the control group and the experimental groups

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Groups</th>
<th>No. of Neo-literates enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Group I Control</td>
<td>34</td>
</tr>
<tr>
<td>2.</td>
<td>Group II Experimental I</td>
<td>36</td>
</tr>
<tr>
<td>3.</td>
<td>Group III Experimental II</td>
<td>33</td>
</tr>
</tbody>
</table>

3.2.6. Selection of the contents

The content for message dissemination was selected based on the review of the objectives of post-literacy. These objectives were mainly stressed upon inculcating knowledge and also creating awareness about various development issues to the neo-literates at post-literacy stage.

The researcher has already identified the Non-formal education television programme schedules based on the following content areas to be telecasted by Doordarshan for a specific period. They are related to:
1. Health issues :

(a) Personal Hygiene,
(b) Pre-natal care
(c) Nutrition
(d) Importance of Breast feeding
(e) Immunization of children

2. Population issues :

(a) Evil effects of Early marriage of girls
(b) Small family for better quality of life

3. Environmental issues :

(a) Environmental sanitation,
(b) Pollution
(c) Conservation of environment

3.2.6.1. Preparation of Instructional Materials

The researcher collected relevant information suited to the selected content areas from various university libraries, development departments, NGO's and so on, in order to prepare instructional materials for teaching the concepts to neo-literates. The information based on the above content areas was further proceeded to several sub-dimensions under major dimensions covering health population and environment issues.
The investigator has consulted the subject experts, area co-ordinators, and educationists of Bhrathidasan University and Madurai Kamaraj University also. Suitable modifications were made by the investigator based on the suggestions given by the experts. Thus, content validity was established with the help of subject experts. Finally the instructional material on the selected content areas were developed. (The lesson plan for the selected content areas is given in the annexure IV to XIII).

Wherever volunteer instructors were involved as per research design, the material was handed over to them and given training about the presentation of the content of the materials before the telecast of the programme. So that, they could understand the concepts, digested the materials and articulated later in media. The content of the materials for dissemination of messages were rendered into simple and understandable local dialect at the neo-literates level.

3.3. Data on Socio-Economic Characteristics

3.3.1. Selection of the Tool

To study the socio-economic background of the neo-literates enrolled at different centres at different places.
3.3.2. The Tool used

The socio-economic status scale (rural) constructed and standardised by Udai Pareek and G. Trivedi was used. The copy of the tool used is appended at the end of this thesis (Vide Appendix I).

3.3.3. Description of the Tool

The schedule consists of 50 sub-items that fall into the following nine major items:

1. Caste
2. Occupation
3. Education
4. Social participation
5. Land
6. House
7. Farm house
8. Material possession
9. Family

3.3.4. The Scoring Procedure

It is noted that only one sub-item is to be checked under each of the major items 1 to 7 by putting a tick mark and the scores of the sub-items ranged from 0-6. All the five sub-items are to be checked in major item 8 and all three items are to be checked in major item 9.
in investigator collected data for the respondents by using this scale through interview, before starting the programme. The respondents who have secured the scores upto 20 is considered as low socio-economic background and the neo-literates who have secured the scores more than 20 is considered as ‘High Socio-Economic background’ for the study.

3.3.5. Reliability and Validity of the Tool

The reliability and validity of the tool have been established by the author. The reliability established by test-retest method and split half method were found to be 0.87 and 0.93 respectively.

Content validity, concurrent validity and construct validity have also been established by the authors.

3.3.6. Administering the Tool

The investigator met the project area co-ordinators, circle guides and volunteer instructors and narrated the purpose of the study in order to get their support for the study. Through their support, a close rapport was established with the respondent and the purpose of the study was explained orally. The respondents however, sat comfortably while responding to the scale.
3.4. Construction of Knowledge, Attitude and Practice (KAP) Schedule

3.4.1. Selection of the Tool

The tool attempts to find out the knowledge, attitude and practice of the neo-literates with reference to the selected content areas. The copy of the tool used for this research is appended at the end of this thesis. (Vide Appendix II)

3.4.2. Development of KAP Schedule

The KAP schedule was developed by the researcher in consultation with the resource persons from various development departments and the experts from Bharathidasan University and Madurai Kamaraj University. The schedule originally consists of 100 items. All these items were taken to the experts with a request to offer suggestions with regard to the suitability of the items. The jury opinion were taken into account and on the basis of their remarks, some items were given up, some items were modified and some retained. Finally, a total of 67 items were framed.

3.4.3. Description of the Tool

The KAP schedule consisted of two parts, the Part I deals with respondent's profile and the Part II deals with knowledge, attitude and practice test. The former part of
this schedule was designed to seek information about personal characteristics of the respondents such as sex, age, marital status, level of exposure in media etc. which might influence their knowledge, attitude and practice towards health, population and environment issues. The later part of this schedule was developed in order to assess the knowledge, attitude and practice level of the neo-literates about the selected content areas.

3.4.4. The Scoring Procedure

The knowledge test items were of multiple choice type in nature. The neo-literates were to choose the correct response out of three alternatives for each item of the test. The score on each correct item can be marked as '1' and incorrect items can be marked as '0'.

The attitude test items were likert scale type. Each item can be marked on a five point scale. For positive items, the score 5 was assigned to 'strongly agree' response, 4 was assigned to 'agree' response, 3 was assigned to 'undecided' response, 2 was assigned to 'disagree' response and 1 was assigned to 'strongly disagree' response. For negative items, the reverse procedure was followed.

The practice test items could be marked as five point scale—very much, much, moderate, little and not at all having the scores 5, 4, 3, 2 and 1 respectively.
3.4.5. Reliability and Validity of the Tool

The reliability and validity of the tool have been established by the researcher. The reliability has been established to be 0.769 by the split-half method by using Spearman Brown Prophecy Formula. The tool was validated for two elements namely concurrence and face validity. Both these measures were achieved by presenting the prepared tools to the leading educationists of Bharathidasan University and Madurai Kamaraj University.

3.4.6. Administering the Tool

The KAP schedule was administered individually to the control and experimental groups. The following instructions were given before distributing the schedule to the respondents. Please indicate your reaction to each item given in the lists by putting a tick mark in the appropriate column in the schedule. The responses were collected and scored as per the scoring procedure mentioned earlier.

3.5. Development of Monitoring and Evaluation Schedule

(Vide Appendix III)

The monitoring and evaluation schedule was developed by the researcher in consultation with experts of Bharathidasan University, in order to assess the learners progress at
different centres (i.e. learning outcomes of the neo-literates enrolled in different centres) and their application in everyday life and also assess the impact of media involved in the study. The objectives of introducing the schedule is a measure for continuous monitoring at the centres and to collect information in details pertaining to T.V. programmes and other educational activities of the centre, no. of neo-literates who had attended the classes regularly, no. of neo-literates who did not attend their classes and the reasons, comments on the part of neo-literates and Volunteer Instructors about the CTV programme, problems faced during the programme, learners feedback etc. It was helped the researches to review the ongoing programme/activities in the post-literacy centre. The impact of activities of the neo-literates was assessed with the help of their present level of knowledge, attitude and practice. The monitoring and evaluation schedule was used once in a week.

3.6. The Pilot Study

A pilot study was conducted for the first two weeks of the first two programmes. The message disseminated as per research design at different centres was analysed. The problems arose during pilot study were also analysed. It has helped the researcher to evolve suitable strategies and to adopt proper control measures for the final study.
3.7. Selection of the Sample

The population for the purpose of the present study has been defined as neo-literatees of post literacy centres of Tiruchirappalli District. In each of the selected post literacy centres, 33 to 36 neo-literatees were selected. A total of 103 neo-literatees were enrolled and tested at entry level in all the three centres. Out of 103, only 96 neo-literatees were tested at terminal level in all the three centres because of certain drop outs at these centres. The researcher has taken the sample of 96 neo-literatees for final analysis. It was clearly shown in the following table.

Table 3.3 No. of Neo-literates who were pre and post tested and the sample size in each group

<table>
<thead>
<tr>
<th>Groups</th>
<th>Tested at entry level (N)</th>
<th>Tested at terminal level (N)</th>
<th>Sample for final analysis (Pre&amp;Post test) (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group I</td>
<td>34</td>
<td>31</td>
<td>31</td>
</tr>
<tr>
<td>Group II</td>
<td>36</td>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>Group III</td>
<td>38</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>Total</td>
<td>103</td>
<td>96</td>
<td>96</td>
</tr>
</tbody>
</table>
3.8. Pre-test Data Collection

The pre-test data were collected from the respondents of all the selected centres, before the commencement of the first programme. For the pre-test, a schedule on knowledge, attitude and practice was used. The no. of neo-literates who were tested at entry level in the different centres were given in the following table.

Table 3.4 No. of neo-literates who were pre-tested before commencement of the programme

<table>
<thead>
<tr>
<th>Groups</th>
<th>No. of neo-literates who were pre-tested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group I</td>
<td>34</td>
</tr>
<tr>
<td>Group II</td>
<td>36</td>
</tr>
<tr>
<td>Group III</td>
<td>33</td>
</tr>
</tbody>
</table>

3.9. The Treatment

The three groups were assigned to different treatments. The Group I was assigned to Volunteer Instructor at Non-Community T.V. centre. Group II was assigned to CTV, without follow up instruction given by volunteer instructor and Group III was assigned the CTV followed by volunteer instructor.
3.9.1. Activating the Experimental Treatment

The following content areas and the issues related to Health, population and Environment were highlighted on TV between 6.00 pm to 6.30 pm on every Tuesday during the period of the study. The details of the programme telecast by Doordharsan for activating the experimental treatment are as follows.

Programme No. 1
Topic: Personal Hygiene (10 Minutes)

Programme No. 2
Topic: Pre-natal care (10 Minutes)

Programme No. 3
Topic: Nutrition (10 Minutes)

Programme No. 4
Topic: Importance of Breast feeding (10 Minutes)

Programme No. 5
Topic: Immunization of Children (10 Minutes)

Programme No. 6
Topic: Evil Effects of Early Marriage of girls (10 Minutes)

Programme No. 7
Topic: Small family for better quality of life (10 Minutes)

Programme No. 8
Topic: Environmental Sanitation (10 Minutes)
Programme No. 9
Topic : Pollution (10 Minutes)

Programme No. 10
Topic : Conservation of environment (10 Minutes)

The above said programmes were utilised for the present study. The details about the different treatments are stated as follows.

3.9.2. Treatment of Group I

Group I received messages through volunteer instructor. The volunteer instructor of this group was trained to deliver the messages based on the content of the materials. The time duration allotted for each topic was 30 minutes.

3.9.3. Treatment of Group II

Group II received the messages of the content areas through community TV without any follow up instruction given by V.I. An opportunity was given to this group for autonomous learning through watching Community T.V. programmes. The neo-literate themselves discussed about the content areas after viewing TV programmes. The time duration allotted for each topic was 30 minutes including telecast time.
3.9.4. Treatment of Group III

Group III received messages through community TV followed by volunteer instructor's discussion i.e. the message disseminated by CTV was being supported by volunteer instructor. Here, the neo-literate of this group have an opportunity to receive instruction on both CTV and V.I. The volunteer instructor has encouraged the neo-literate for discussion about the same content after viewing the TV programmes. The time duration allotted for the topic was 30 minutes each including telecast time.

3.10. Post - Test Data Collection

The post-test data were collected from the respondents of all the selected centres, after the experimental treatment i.e., at the end of the last programme. For the post-test, the schedule already used in the pre-test was also used. The details about the no. of neo-literates who were tested at terminal level in different centres were given in the following table.
Table 3.5 No. of neo-literates who were tested at the end of last programme

<table>
<thead>
<tr>
<th>Groups</th>
<th>No. of neo-literates who were post-tested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group I</td>
<td>31</td>
</tr>
<tr>
<td>Group II</td>
<td>33</td>
</tr>
<tr>
<td>Group III</td>
<td>32</td>
</tr>
</tbody>
</table>

3.11. Conclusion

The data collected on the variables under study at both entry level and terminal level were analysed by using suitable statistical techniques and based on the analysis, interpretations were drawn and generalisations were arrived at. A detailed discussion on the various statistical techniques applied and the inferences drawn are given in the following chapter.