CHAPTER-III

Methodology
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3.0 INTRODUCTION

This chapter describes the methods and techniques adopted to carryout the investigation and delineates how the entire study has been organised and reported. Starting with this brief introduction, the statement of the problem, the general and specific objectives of the study followed by hypotheses are presented. The design of the study, the sampling procedure, the variables, the construction of tools, the reliability and validity of the tools, the final study and the statistical techniques employed for the study are elaborated in detail in the present chapter.

3.1 STATEMENT OF THE PROBLEM

The thrust of the problem is to study and gather facts and figures on various extension activities and the different models adopted by the autonomous colleges in the State of Tamil Nadu. Based on this data, the outcome of the extension activities on the teachers, students and community are assessed. The researcher also through this study has attempted to develop prototype extension activity models which may be adopted by autonomous colleges. This would also help the existing models for necessary changes / suitable modifications. Above all this would help the education policy makers to concretise and develop comprehensive models on extension activities in the future.
3.2 GENERAL OBJECTIVES OF THE STUDY

The general objectives of the study are:

- To study about various extension activities, its components and nature, methods of implementation and its integration, constraints & problems, and influences on curriculum of autonomous colleges in the state of Tamil Nadu.
- To find out and compare the benefits and experiences gained in extension activities among the selected colleges, faculties, students, and adopted communities in the study area.
- To develop prototype models on extension activities particularly to the autonomous colleges.

3.3 SPECIFIC OBJECTIVES OF THE STUDY

The specific objectives of the study are:

* To enlist the various extension activities implemented by the selected autonomous colleges in the State of Tamil Nadu.
* To find out the nature and components of extension activities that are included/ integrated in the curriculum of the selected autonomous colleges of the study area.
* To understand the influence of extension activities as a part of curriculum of selected autonomous colleges in the State of Tamil Nadu.
* To find out the methods of implementation of extension activities at selected autonomous colleges in the study area.
* To find out the constraints and problems which are encountered in implementing extension activities at the chosen autonomous colleges of the present study.

* To find out the relationship between the type of college (men, women, and co-education) and the experiences gained by the students on extension activities.

* To find out the relationship between the type of management (minority, non-minority and government colleges) and the experiences gained by the students on extension activities.

* To study and analyse the significant relationship between the male, female students and the experiences gained by them on extension activities.

* To study and analyse the significant relationship between the undergraduate, post graduate students and the experiences gained by them through the extension activities.

* To study and analyse the benefits derived among the trained, untrained faculties; minority, non-minority, government college faculties; and men, women, co-education college faculties.

* To study and analyse the significant relationship between the benefits derived and undergraduate, post-graduate students, male, female students and minority, non-minority, government college students.
* To study and analyse the significant relationship between the personal benefits derived and the beneficiaries drawn from men, women, co-education colleges area and minority, non-minority, government college area.

* To study the benefits derived by the community as a whole and its significant relationship between the minority, non-minority, government colleges adopted community and men, women, co-education colleges adopted community.

3.4 HYPOTHESES

Keeping in view of the objectives of the study, the following null hypotheses have been formulated for testing.

_Hypothesis - 1_

There is no significant association between the sex of the students and the experience - Interesting one

_Hypothesis - 2_

There is no significant association between the sex of the students and the experience - Challenging one.

_Hypothesis - 3_

There is no significant association between the sex of the students and the experience - Over expectation one.
Hypothesis - 4

There is no significant association between the sex of the students and the experience - New experience one.

Hypothesis - 5

There is no significant association between the sex of the students and the experience - Useful for the study and life.

Hypothesis - 6

There is no significant association between the level of graduation of students and the experience - Interesting one.

Hypothesis - 7

There is no significant association between the level of graduation of students and the experience - Challenging one.

Hypothesis - 8

There is no significant association between the level of graduation of students and the experience - New experience one

Hypothesis - 9

There is no significant association between the level of graduation of students and the experience - Over expectation one.

Hypothesis - 10

There is no significant association between the level of graduation of students and the experience - Useful for study and life.
**Hypothesis - 11**

There is no significant association between the types of management (minority, non-minority and government) college students and the extension experience - Interesting one.

**Hypothesis - 12**

There is no significant association between the types of management (minority, non-minority and government) college students and the extension experience - Challenging one.

**Hypothesis - 13**

There is no significant association between the types of management (minority, non-minority and government) college students and the extension experience - New experience one.

**Hypothesis - 14**

There is no significant association between the types of management (minority, non-minority and government) college students and the extension experience - Over expectation one.

**Hypothesis - 15**

There is no significant association between the types of management (minority, non-minority and government) college students and the extension experience - Useful for study and life.
Hypothesis - 16

There is no significant difference between the trained and untrained faculties with regard to the benefits derived by the extension activities.

Hypothesis - 17

There is no significant difference between the involvement of faculties (voluntarily and compulsorily) and the benefits derived by the extension activities.

Hypothesis - 18

There is no significant difference among the types of management of college (minority, non-minority and government) faculties with regard to the benefits derived by the extension activities.

Hypothesis - 19

There is no significant difference among the types of management (minority, non-minority and government) college students with regard to the benefits derived by the extension activities.

Hypothesis - 20

There is no significant difference among the men, women, and co-education college students with regard to the benefits derived by the extension activities.

Hypothesis - 21

There is no significant difference between the level of graduation (UG and PG) of students with regard to the benefits derived by the extension activities.
Hypothesis - 22

There is no significant difference between the sex - male and female students with regard to the benefits derived by the extension activities.

Hypothesis - 23

There is no significant difference among the types of management (minority, non-minority and government) college beneficiaries with regard to personal benefits derived by the extension activities.

Hypothesis - 24

There is no significant difference among the men, women and coeducation college beneficiaries with regard to the personal benefits derived by the extension activities.

Hypothesis - 25

There is no significant difference among the types of management (minority, non-minority and government) college adopted community with regard to the benefits derived by the extension activities.

Hypothesis - 26

There is no significant difference among the types of college (men, women and co-education) adopted community with regard to the benefits derived by the extension activities.
3.5 STUDY AREA LOGISTICS AND RATIONAL (PROFILE)

Tamil Nadu State took the early lead in the sphere of autonomous colleges and it continues to maintain its lead till date. During the academic year 1978 - 79, the University of Madras granted autonomous status to eight of its affiliated colleges and Madurai Kamaraj University to two of its colleges. The late Eighties (particularly 1987-88) saw a phenomenal expansion in the number of autonomous colleges which went up to as high as 43 colleges. There are more than 40 per cent of autonomous colleges in the country are located in Tamil Nadu today (There are 103 autonomous colleges in India during 1990-91). The University wise distribution of these colleges in Tamil Nadu are given below.

<table>
<thead>
<tr>
<th>SL.No</th>
<th>Name of the University</th>
<th>No.of. Autonomous Colleges</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>University of Madras, Chennai</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>Bharathiyar University, Coimbatore</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Madurai Kamaraj University, Madurai</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Manonmaniam Sundaranar University, Thirunelveli</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Bharathidasan University, Tiruchirappalli</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>43</td>
</tr>
</tbody>
</table>

After 1987-88, the process of growth of autonomous colleges has slowed down. The concept of autonomous colleges, though can be traced back to pre-independent days, was given a concrete shape only after the submission of the report by the Education Commission (1964-66), headed by D.S. Kothari. The report called for conferring of autonomous status to select colleges as an interim measure before they attain the status of deemed University; where there is an outstanding college or a small cluster of very good colleges within a large university which has shown the capacity to improve itself markedly, consideration should be given to granting it an autonomous status.

In pursuance of the recommendation of Kothari Commission, a beginning was made in 1973 to grant autonomy to a few carefully selected colleges and departments of University. At present Tamil Nadu has autonomous colleges with more than 15 years of autonomous experiences, more than 10 years and also with 5 years and less. The researcher selected only the Arts and Science autonomous colleges for study (32 out of 43 in total) in the state. Among the 32 colleges, 8 colleges were selected keeping the year 1991 as cut off year for the selection.

3.6 RESEARCH DESIGN

Research design is the specification of methods and procedures for acquiring the information needed. It is the overall operational pattern or framework of the project that stipulates what information is to be collected from which sources by what procedures (Paul E. Comer & Donald S. Tull). Research design is the plan, structure and strategy of
investigation conceived so as to obtain answers to research questions and to control variance. It is the overall schemes or programmes of research (Fred N. Kerlinger).

The researcher has utilised exploratory and survey methods in the present study.

The present exploratory study covers the following two phases mentioned by Katz and Festinger (1953) as given below:

⇒ To explore and identify relevant variables pertaining to the research problem selected for the study, and

⇒ To find out the relationship between the variables selected and studied. Survey is a form of planned collection of data for the purpose of description or prediction as a guide to action or for the purpose of analyzing the relationship between certain variables (Babbi, 1973) and it is usually conducted on a fairly large scale.

Lin (1976) has pointed out the following characteristics of the survey method:

• It deals with a representative sample of a population. Thus, sampling, especially probabilistic sampling is important in survey studies.

• It seeks responses on the instrument directly from respondents. These success of a survey depends to a large extent on the ability of the instruments, the interviews are to solicit both unbiased and valid responses from the respondents.

• Inferences usually require large sample size. Thus, the survey usually involves many respondents, when compared to other methods of data collection.

• The survey is conducted in a national setting.
It is clear from above discussions that the certainty of results in any survey research depends on the probabilities sampling, the appropriate instrument and recognition of non-sampling error an present design has endowed special attention to this areas.

3.7 SAMPLE DESIGN

The selection of autonomous colleges was made by stratified disproportionate random sampling method. The selection of faculties, students and the community is done by random sampling proportionate to the total population.

3.7.1 SELECTION OF COLLEGES

Stratified disproportionate random sampling technique adopted in selecting the autonomous colleges for the study. Irrespective of the size of the units in each strata, the researcher selected two autonomous colleges from each University. The researcher taken the list of autonomous colleges keeping the year 1991 as the cut off year for this study. As this study is a statewide study, the researcher covered all the Universities in Tamil Nadu, which are the University of Madras, Chennai; Bharathiyar University, Coimbatore; Bharathidasan University, Tiruchirappalli and Madurai Kamaraj University, Madurai (which covers the present Manonmaniam Sundaranar University also) were selected for this study. Two autonomous colleges from each University have been selected. Thus the following EIGHT autonomous colleges (constitutes 25%) forms the sample for the study out of the 32 Arts & Science autonomous colleges in the state of Tamil Nadu. The location of the eight selected colleges are marked in the map.
MAP SHOWING THE LOCATIONS OF THE SELECTED AUTONOMOUS COLLEGES IN TAMIL NADU

1. TNMIMA COLLEGE
2. GOVT ARTS COLLEGE
3. LOYOLA COLLEGE
4. NGM COLLEGE
5. ST. JOSEPH'S COLLEGE
6. SRI SARADA COLLEGE
7. ST. XAVIER COLLEGE
8. AVVM SRI PUSHPAM COLLEGE

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Based upon Survey of India map with the permission of the Surveyor

The territorial waters of India extend into the sea to a distance of six or
nautical miles measured from the appropriate base line.
Table 3.2  
**University Wise Distribution of Selected Autonomous Colleges in Tamilnadu.**

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>University Name</th>
<th>Name of the Selected College</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>University of Madras, Chennai</td>
<td>Loyola College, Chennai</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sri Sarada College for women, Salem</td>
</tr>
<tr>
<td>2</td>
<td>Bharathiyar University, Coimbatore</td>
<td>Government Arts College, Coimbatore</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N.G.M. College, Pollachi</td>
</tr>
<tr>
<td>3</td>
<td>Bharathidasan University, Tiruchirappalli</td>
<td>St. Joseph’s College, Tiruchirappalli.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A.V.V.M. Sri Pushpam College, Poondi</td>
</tr>
<tr>
<td>4</td>
<td>Madurai Kamaraj University, Madurai</td>
<td>Fatima College, Madurai</td>
</tr>
<tr>
<td></td>
<td></td>
<td>St. Xavier’s College, Palayamkottai</td>
</tr>
</tbody>
</table>

3.7.2 SELECTION OF FACULTY

The researcher stratified the population according to the colleges so as to get equal representation. Twenty five per cent of the sample was selected from each college. Thus Stratified Proportionate Random Sampling was adopted for selecting the faculties for the study.

Table 3.3  
**College-wise Faculty Distribution in the Study Area**

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>College Name</th>
<th>Size of Universe</th>
<th>Samples Selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fatima College, Madurai</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Government Arts College, Coimbatore</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Loyola College, Chennai</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>NGM College, Pollachi</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>St. Joseph’s College, Tiruchirappalli</td>
<td>28</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>Sri Sarada College, Salem</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>St. Xavier College, Palayamkottai</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>AVVM Sri Pushpam College, Poondi</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>144</strong></td>
<td><strong>36</strong></td>
</tr>
</tbody>
</table>

These faculties are involved in different extension activities like NSS, NCC, Adult Education, Women Cell, AICUF, Fine Arts, Service Clubs, Sports, Extension.
3.7.3 SELECTION OF STUDENTS

Table 3.4  Students Selection - College-wise Distribution in the Study Area

<table>
<thead>
<tr>
<th>SL No</th>
<th>College name</th>
<th>Size of the Universe</th>
<th>Samples Selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fatima College, Madurai</td>
<td>1000</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>Government Arts College, Coimbatore</td>
<td>1000</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>Loyola College, Chennai</td>
<td>800</td>
<td>40</td>
</tr>
<tr>
<td>4</td>
<td>NGM College, Pollachi</td>
<td>1200</td>
<td>60</td>
</tr>
<tr>
<td>5</td>
<td>St. Joseph's College, Tiruchirappalli</td>
<td>1400</td>
<td>70</td>
</tr>
<tr>
<td>6</td>
<td>Sri Sarada College, Salem</td>
<td>1000</td>
<td>50</td>
</tr>
<tr>
<td>7</td>
<td>St. Xavier College, Palayamkottai</td>
<td>1000</td>
<td>50</td>
</tr>
<tr>
<td>8</td>
<td>AVVM Sri Pushpam College, Poondi</td>
<td>800</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>8200</td>
<td>410</td>
</tr>
</tbody>
</table>

* The researcher stratified the population according to the colleges so as to get equal representation. FIVE per cent of the sample was selected from each college. Thus, Stratified Proportionate Random Sampling method was adopted for selecting the students for the present study. Students in this present study includes those students who are involved in the extension activities as the following:

* National Service Scheme (NSS)
* National Cadet Corps (NCC)
* Adult and Continuing Education (ACE)
* Women Cell (WC)
* Fine Arts Association (FAA)
* Extension Education (EE)
* Services Clubs Activities (SCA)
* Sports and Games (S&G)
* All India Catholic University Federation (AICUF)
3.7.4 SELECTION OF BENEFICIARIES:

Table 3.5 *College-Wise Selection of Community Level Beneficiaries in the Study Area*

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>College Name</th>
<th>Size of the Universe</th>
<th>Samples Selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fatima College, Madurai</td>
<td>1000</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>Government Arts College, Coimbatore</td>
<td>800</td>
<td>40</td>
</tr>
<tr>
<td>3</td>
<td>Loyola College, Chennai</td>
<td>1000</td>
<td>50</td>
</tr>
<tr>
<td>4</td>
<td>NGM College, Pollachi</td>
<td>800</td>
<td>40</td>
</tr>
<tr>
<td>5</td>
<td>St. Joseph's College, Tiruchirappalli</td>
<td>1000</td>
<td>50</td>
</tr>
<tr>
<td>6</td>
<td>Sri Sarada College, Salem</td>
<td>500</td>
<td>25</td>
</tr>
<tr>
<td>7</td>
<td>St. Xavier college, Palayamkottai</td>
<td>1000</td>
<td>50</td>
</tr>
<tr>
<td>8</td>
<td>AVVM Sri Pushpam College, Poondi</td>
<td>600</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>6700</td>
<td>335</td>
</tr>
</tbody>
</table>

The researcher stratified the population according to the colleges so as to get equal representation. FIVE per cent of the sample was selected from each college. Thus Stratified Proportionate Random Sampling method was adopted for the selection of the community level beneficiaries for this study.

The beneficiaries in this present study includes those who are involved and benefited out of college extension activities.

3.7.5 RESUME OF SAMPLING DESIGN ADOPTED

The following table gives the over all details about the samples selected for various categories or the study and its percentage, the methods adopted for selection.
### Table 3.6  
**Details of the Universe, Sample Size and the Methods Adopted**

<table>
<thead>
<tr>
<th>SL.No</th>
<th>Particulars</th>
<th>No. of Universe</th>
<th>Size of Sample</th>
<th>Method Adopted</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Autonomous College (Arts &amp; Science)</td>
<td>32</td>
<td>8</td>
<td>Stratified disproportionate random sampling</td>
<td>25%</td>
</tr>
<tr>
<td>2.</td>
<td>Extension Staff in 8 Selection Colleges</td>
<td>144</td>
<td>36</td>
<td>Stratified proportionate random sampling</td>
<td>25%</td>
</tr>
<tr>
<td>3.</td>
<td>Students involved in Extension (8 Colleges)</td>
<td>8,200</td>
<td>410</td>
<td>-do-</td>
<td>5%</td>
</tr>
<tr>
<td>4.</td>
<td>Beneficiaries at 8 College adopted Community</td>
<td>6,700</td>
<td>335</td>
<td>-do-</td>
<td>5%</td>
</tr>
</tbody>
</table>

### 3.8 VARIABLES OF THE STUDY

Reviewing the available literature in the area of extension activities, the researcher has identified the following variables for the present study.

#### 3.8.1 INDEPENDENT VARIABLES

The Independent Variables related to the study are identified related to college management, staff, students and the community of the study are as follows:

**Variables related to college**

- Management - Minority College
- Non-Minority College
- Government College
Type
- Men College
- Women College
- Co-education College

Variables related to the Faculties
Training
- Trained Faculty
- Untrained Faculty
- Voluntarily involved Faculty
- Compulsorily involved Faculty
- Male Faculty
- Female Faculty

Variables related to Students
Sex
- Male students
- Female students

Courses
- Under Graduate students
- Post Graduate students

3.8.2 DEPENDENT VARIABLES
- Experiences gained through extension activities
- Benefits derived through extension activities, and
- General suggestions in implementing extension activities
3.9 CONSTRUCTION OF TOOLS

3.9.1 THE PROCESS

Since the present study is based on the exploratory and survey methods, it is inevitable to construct a tool of inquiry (Questionnaire/Interview Schedule) for gathering the necessary data. While constructing the tools, the researcher had to go through different stages. Primarily the researcher reviewed the related studies, visited various autonomous colleges and Universities and libraries in many parts of the Country. The relevant documents, reports, journals, periodicals and books were helpful in framing the tools of the study.

Secondly, the researcher held discussion with the scholars in the field of Education, Extension, Sociology, Statistics and with field experts in Extension Activities and Community Development. By consulting them, the researcher got clarity for constructing and shaping the tools.

In the third step, the researcher has associated himself with the extension activities of St. Joseph’s College (autonomous), Holy Cross College (autonomous), Centre for Adult, Continuing Education & Extension, Bharathidasan University, Tiruchirappalli in various stages of executing extension activities ranging from coordinating the extension department of St. Joseph’s College, planning, training of functionaries at different level and beneficiaries of extension activities of above mentioned colleges.
Finally, during the field visits, the researcher had casual and informal talks with the Students, Faculties of Extension Activities, and the Community (beneficiaries). Such experiences in the field of extension activities enabled him to conceive an idea of the problems and prospects of the extension activities both at the college and grass-root level.

Based on the information collected from various literature, discussion with experts, interaction with the college management, extension staff, students, the beneficiaries and association with the activities, researcher selected the problems for the study and constructed the tools to find out the extension activities. As the respondents of the investigation are the college management, staff, students and beneficiaries, the questionnaire and interview schedule are the more appropriate tool to collect the required data for the present study.

3.9.2 THE TOOLS

The Questionnaire and Interview Schedule were devised to collect data for the present study

3.9.2.1 Questionnaire

The questionnaire contains the following 3 parts.

a. Questionnaire - Part -'A' (for college management)

The questionnaire part-'A' has been developed to collect general information and details regarding extension activities from the management of selected autonomous college's management. This gives information on the colleges background and how
extension activities are implemented, the various extension activities that are adopted by individual college, its functioning, the constraints and problems faced by the management in implementing the extension activities.

b. Questionnaire - Part - 'B' (for extension staff)

The questionnaire part- 'B' is designed to assess the background, experience, involvement and training of the faculty members who are involved in the extension activities. It also has the provision to study about its usefulness and comments on the activities.

c. Questionnaire - Part - 'C' (for students)

The 'part - C' Questionnaire is meant for the students who are involved in the various extension activities. This has the provision to study on the various extension activities, that the students are involved, the area of service, students' experiences, the benefits derived by them and their comments and opinion on extension activities.

3.9.2.2 Interview Schedule (For Community Level Beneficiaries)

The Interview Schedule is meant for the beneficiaries who are benefited out of college extension activities. This interview schedule has the provision to study about the background of the beneficiaries, their experiences in the activities, the benefits derived by them and community and their comments and opinion about the college extension activities.
3.10 PRE-TESTING

With the aim of deducting the discrepancies and removing them in the draft questionnaire and interview schedule constructed for the present study, pre-testing was observed. The draft items were administered randomly to the students in three chosen colleges, which has not been covered for main study. On the basis of pre-testing, the questionnaire was slightly structured and modifications were also made in each item of questionnaire. The interview schedule was administered randomly in three selected villages, namely Ettarai in Thiruchirapalli District (adopted village of Holy Cross College), Pampapatiyur in Thanjavur District (adopted village of Gover College for men) and Pallavarayapet in Nagappattinam District (adopted village of AVC College). Based on the pre-testing proper modifications were made in the schedule.

3.11 PILOT STUDY - PHASE I FOR QUESTIONNAIRE (PART B & C)

To undertake pilot study (phase-I) a sample of 106 respondents from students 10 staff drawn from government, minority and non-minority colleges was selected in the State of Tamilnadu. The responses of the students and staff respondents entered in the answer sheet were scored and arranged in the descending order. The top 27 per cent (high group) and the bottom 27 per cent (low group) of the cases were retained for the item analysis. Mean and Standard Deviations were calculated for all the items in both the groups and with these values' Chi square' value was established for all the items. Those values which were found to be at 1% level were retained for the final study.
3.12. FORMAT OF THE FINAL STRUCTURED QUESTIONNAIRE FOR STAFF AND STUDENTS

The questionnaire framed for the students (part B&C) towards different dimensions / aspects of experience and opinion about different extension programme emerged as a result of many process. The information relating to interesting, challenging, new, over expectation and useful for study and life are measured through structured items from the student respondents. The English version of the questionnaire were utilised. The abstract of each aspect of experience and comment and suggestions are given below.

Table 3.7 The Number of Questions or Items Spread Under Each Aspect of Extension Activities

<table>
<thead>
<tr>
<th>SL.No.</th>
<th>No. of Aspects</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Staff</td>
</tr>
<tr>
<td>1</td>
<td>Experience</td>
<td>--</td>
</tr>
<tr>
<td>2</td>
<td>Benefit</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>Suggestion</td>
<td>5</td>
</tr>
</tbody>
</table>

The following steps have been taken in the construction of questionnaire for students

* precautions have been taken to include varied opinions in the form of items.
* clear instructions have been given to the respondents at the time of data collection.
3.13 RELIABILITY OF QUESTIONNAIRE

Testing the reliability of a data gathering tool is another important character in research work. "A test can not be valid unless it is reliable, but it may be reliable without being valid. The ideal test tells the truth consistently (Ross et al., 1955). The commonly used methods to estimate the reliability of tests are given below.

- Split - half reliability
- Kuder - Richardson's estimates
- Test - retest reliability
- Alternate or Parallel form reliability

The present study has utilised Split - half method to estimate the reliability of the test because this method is deemed to be one of the best methods in which all the data from computing reliability are obtained by one testing: so that variations brought by difference between two testing situations are eliminated.

The researcher administered the questionnaire to a sample of 106 students and 10 faculty members for testing the suggestions towards the three dimensions of extension activities. In this method, the test was divided into two equivalent halves by polling the scores on an odd numbered and then even numbered items and the correlation is found for these half-tests and the reliability is found to be 0.746 for the students and 0.821 for the faculty members.
3.14 VALIDITY OF QUESTIONNAIRE

This validity is important primarily for measuring the benefits accrued by the students and faculty members through various college extension activities. The test content is drawn from the selected extension activities materials, consultation with relevant field experts, linguistic personalities. As per the suggestions made by the experts, the contents were modified and rearranged according to the weightage of the objectives of the study. During the course content validity due weightages were also given to language, content coverage, format of items.

3.15 PILOT STUDY - PHASE II (for Interview Schedule)

The test items pooled through referring various books, journals, reports relating to extension activities were sent to 6 scholars in the field of extension programs, 5 experts in the field of Adult and Continuing Education. Based on their suggestions a few items were added and few items were rearranged.

3.15.1 RELIABILITY OF INTERVIEW SCHEDULE

The word reliability means consistency or accuracy, i.e. the degree to which the test agrees with itself, "a test is said to be reliable when it functions consistently" (Garrett et al., 1958). The Test-retest method is the only feasible approach for the establishment of the reliability of the interview schedule (Moubey, 1970). Hence, reliability is the essence of the present tool. In the present case, the method of rational equivalence (Kuder and Richardson formula) was administered to establish the
reliability of the test. This method stresses the inter correlation of the item in the test and the correlation of the test with the test as a whole.

\[
\rho_{11} = \frac{n \sigma^2 - M(n-M)}{\sigma^2 (n-1)}
\]

\[
\rho_{11} = \text{reliability of the whole-test}
\]
\[
n = \text{number of item in the test}
\]
\[
\sigma = \text{SD of the test scores}
\]
\[
M = \text{Mean of the test scores}
\]

After the preparation of the final draft of Interview Schedule for beneficiaries as per the suggestions made by the experts, the researcher randomly selected 86 respondents out of 335 beneficiaries and the above test was applied.

The obtained 'r' value (0.7132) indicates that the interview schedule was a reliable tool.

**3.15.2 VALIDITY OF INTERVIEW SCHEDULE**

The validity of a test or evaluation devise can be defined as the degree to which the test measures what it is intended to measure (Y.P.Agarwal, 1988). In the present case a test is mean to measure the benefits enjoyed by the beneficiaries.

This validity is important primarily for measuring the benefits accrued by the beneficiaries through various college extension activities. The test content is drawn from the selected extension activities and materials consultation with relevant field experts, linguistic personalities. As per the suggestions made by the experts, the contents were
modified and rearranged according to the weightage of the objectives of the study. During the course content validity, due weightages were also given to language, content coverage and format of items. The pre-test and pilot study has not been done for the college management (questionnaire part-A) since the data was collected for general informations.

3.16 FINAL ADMINISTRATION AND DATA COLLECTION

The standardised questionnaires were administered among the sample population with the help of investigators. Before administering the tools, a formal discussion was made with each investigator with a view to establish a close contact and support with them. Then the purpose of data collection was explained to them.

Since the respondents are spread over eight different places of Tamil Nadu, the data were not only collected by researcher himself but also through specially trained field investigators. The college management took time to fill up the questionnaires, it took about a year to collect all the relevant data from all the selected colleges. Few extension faculty members were also taken time to answer the questionnaires. It was indeed a difficult task for the researcher to collect the data from the students. Since it needs the cooperation from the management and the concerned faculty members and also convenient time (free from any examination and holidays) the investigators and the researcher have to go to several time to get the questionnaire filled by the students. Equally the difficulty to gather information from the beneficiaries of each college. Simple, open ended, easy to assess the correct answer type questions were printed in
English under Part - A,B & C of the questionnaire and in Tamil for the Interview Schedule. For the beneficiaries the relevant information are gathered and marked by the investigators & researcher himself through personal interview. A copy of the Questionnaires Part A,B,C and the interview schedule (English and Tamil version) are as ANNEXURE - I, II and III respectively.

3.17 QUANTIFICATION OF THE VARIABLES

The variables have been quantified in the following manner:

3.17.1 STUDENTS’ EXPERIENCES

For the purpose of identifying and analysing the significant association between the selected variables and the extension activities experiences of the students. One score for each experience was given and analysed accordingly. The following dependent variables are converted in to scores.

- Interesting one
- Challenging one
- New experience
- Over expectation
- Useful for study and life

The maximum scores for this variable is five. Higher the score higher the experiences gained. The analysis have been done for the variables students’ Sex - Male, Female , Type of college - Men, Women and Co-education, Type of Management - Minority, Non-Minority and Government college,
3.17.2 BENEFITS

In order to study and analyse the benefits derived by the faculties, students, beneficiaries and the community as a whole, each benefit was given one score and analyse accordingly. The following benefits are given the scores and analysed for the faculties.

- Helped to teach the subject effectively.
- Helped to make suitable changes in the curriculum.
- Learned about community development skills.
- Helped to analyse the causes/problems of the society.
- Helped to analyse the causes/problems of the society and to find solutions.
- Helped to develop projects relevant to society.
- Change in the attitude - concern for others.
- Motivate students and to create a sense of concern for others.

The maximum score is EIGHT. That is higher the score, more will be the more benefits.

Regarding the benefits derived by the students are concerned, the following FIVE benefits were taken and given one score for each benefit and analysed.

- Gained knowledge on society
- Gained skills to do community development work.
- Gained over all personality development.
- Learned public relations and contacts.
Attitudinal change towards social concern.

Higher the score indicates the maximum benefits derived. The maximum for a student is FIVE.

As for personal benefits are concerned each benefit is given one score and analysed accordingly. To assess the benefits derived by the beneficiaries. The following ELEVEN benefits are taken for the analysis.

- Learned literacy.
- Known about health and hygiene.
- Known about environment related matters.
- Known about the government schemes/programmes.
- Got skill training.
- Received government scheme/project,
- Started small savings.
- Increased income.
- Learned group work and co-operative work.
- Gained leadership quality.
- Gained self confidence.

The maximum score for the category is Eleven. Regarding the benefits by the community as a whole, thirteen benefits are identified and analysed for this study. The following are the thirteen benefits, one score for each benefit given and analysed.
Got road and transport facilities.

Got protected drinking water facilities.

Received medical and health facilities.

New trees are planted.

Improved environment.

Pre-school and non-formal education conducted.

Formed women, youth clubs and co-operative society.

Implemented government schemes.

Number of literate increased.

Number of school-going children increased.

Reduction in child labour and marriage.

Infant mortality rate reduced.

Co-operation of the people increased.

The maximum for this variable is **thirteen**. The maximum scores indicates the maximum benefits.

### 3.18 LIMITATIONS OF THE STUDY

The following are some of the limitations in the present study.

* Only autonomous colleges in the State of Tamil Nadu are considered as samples, therefore the results of this study can not be generalised to all the colleges.

* The number of colleges chosen for the purpose of sampling were kept at certain level in view of the constraint of cost, labour and time.
* Only Arts and Science Autonomous colleges are considered for the study, so the result of the study can not be generalised to other autonomous colleges (Education, Technology & Engineering and Agriculture).

* The major nine extension activities that involves faculty members and students are considered for the study, which are detailed in the Chapter IV. Hence it can not be generalised for all the extension activities.

* Only selected dependent variables like experiences (five only), benefits (five only) for students, nine benefits taken for the faculties, eleven for the personal benefits of beneficiaries and thirteen for the community as a whole are studied and analysed for the study.

3.19 STATISTICAL TECHNIQUES USED

The obtained data were converted into standard scores, tabulated into frequency distribution using descriptive and inferential statistics. Further, the data were analysed by using the appropriate statistical techniques.

Primarily it was felt necessary to describe the various type and the nature of extension activities implemented at college level and the general background of the colleges, staff, students, and the beneficiaries.
To find out the association between the variables Chi-square test was applied.

Students : Sex and Experiences :
- Interesting one
- Challenging one
- New experience
- Over expectation
- Useful for study and life.

Level of graduation and experiences :
- Interesting one
- Challenging one
- New experience
- Over expectation
- Useful for study and life.

Type of management and experiences :
- Interesting one
- Challenging one
- New experience
- Over expectation
- Useful for study and life.

To find out the significant difference between the variables, the ‘t’ test was applied.

Faculties: Trained and Untrained faculties and the benefits derived
Voluntarily and Compulsorily involved faculties and the benefits derived.

To find the difference between groups, the researcher used ‘t’ test and one way analysis of variance (‘f’ test).
Faculties: Type of management and benefits derived

Students: Type of management and benefits derived
Type of college and benefits derived
Level of graduation and benefits derived
Sex of Students and benefits derived.

Beneficiaries: Type of management and benefits derived
Type of college and benefits derived

Community: Type of management and benefits derived
Type of college and benefits derived

In the thesis,

Type of College refers: Men, Women, Co-Education.
Type of Management refers: Minority, Non-minorty, Government
Level of Graduation refers: UG, and PG
Sex of Students refers: Male and Female

3.20 SUMMARY OF THE CHAPTER

The third chapter presents the blue print of the research process that guides the study. This proceeds with the statement of the problem, objectives of the study, design, profile of the study area, sampling procedure, construction of tools, and a reference to statistical tools used.