Chapter III

METHODOLOGY

3.1. INTRODUCTION

This chapter describes in detail, the design of the study, nature and selection of sample, a brief description of the tools of investigation and their criteria. It also gives a description of the procedure adopted for the collection of data, scoring and classification and finally the proposed statistical treatment of the data for testing the hypotheses formulated.

Research can be defined as “the systematic and objective analysis and recording of controlling observations that may lead to the development of generalization, principles or theories, resulting in prediction and possible ultimate control of events” (Best and Khan, 1986). Research is always directed towards solution to some problem. It develops the curiosity about the unknown and it is procedure from known to unknown. The ultimate goal of any research problem is to find out the cause and effect relationship among the variables. Educational research is concerned with the development and testing the theories of how student-teachers behave in an educational setting. The success of an educational researcher depends on the systematic adoption of the scientific method.

The success of any research depends largely upon the suitably of the method, the tool and the techniques used for the collection of data. The validity of the findings also depends upon the methods and hence methodology occupies a very important role in any type of research.
3.2. STATEMENT OF THE PROBLEM

The problems for the study are titled as follows:

A study on value conflict and mental health of B.Ed. student-teachers in relation to their social maturity.

3.3. DEFINITIONS OF THE KEY TERMS

3.3.1. VALUE CONFLICT

Shaffer: Conflict may be defined as a state of affairs in which two or more incompatible behaviour trends are evoked that cannot be satisfied fully at the same time.

3.3.2. MENTAL HEALTH

Bernard (1970) defines, mental health as “the adjustment of individuals to themselves and the world at large, with maximum of effectiveness, satisfaction, cheerfulness and socially considerate behavior and the ability of facing and accepting the realities of life”.

3.3.3. SOCIAL MATURITY

Garrett (1968) states that “social maturity is the degree of social participation as measured by child’s activities and play interests. It is related to physical growth and maturity and mental ability. Every individual develops his own unique way of adjustment in the society.
3.4. OPERATIONAL DEFINITIONS

3.4.1. Value Conflict

Whenever two or more incompatible principles, ideologies, religion, socio-political aspirations and cultural identifies are active at the same time, they are said to be as value conflicts. In this study, the Value Conflict Scale prepared by the investigator has been used to measure the level of value conflict among B.Ed. student-teachers.

3.4.2. Mental Health

Mental health refers to a condition and a level of social functioning which is socially and personally satisfying in all the aspects of life. In this present study, Mental Health Inventory constructed by the investigator is used to measure it.

3.4.3. Social Maturity

Social maturity is the final expected outcome of social development and socialization. A socially matured person knows his role as a member of the social group. In this present study, social maturity scale constructed by the investigator has been used to measure the level of social maturity among B.Ed. student-teachers.

3.4.4. B.Ed. Student-Teachers

It refers to student-teachers studying B.Ed. in colleges affiliated to the Tamil Nadu Teacher Education University and Tamil University.
3.5. VARIABLES SELECTED FOR THE STUDY

3.5.1. Personal variables

Gender refers to male and female.
Age group refers to 21-30 and 31-40 years.
Educational Qualifications refers to UG and PG.
Marital status refers to Married and Unmarried.
Subject refers to Arts and Science.
Religion refers to Hindu, Muslim and Christian.
Locality of residence refers to Rural and Urban.
Filial order refers to pupils who were born first, second, third, and forth
Type of family refers to nuclear and joint family.
Father’s educational status refers to illiterate, school level, and college level.
Mother’s educational status refers to illiterate, school level, and college level.
Father’s occupation status refers to agriculture, government employee and private employee.
Mother’s occupation status refers to Housewife, government employee and private employee.
Monthly income refers to below ₹10,000, between ₹10,000 and 30,000, and above 30,000.

3.5.2. College related variables

- Type of college refers to government and self finance institutions.
- Location of college refers to rural and urban.
3.6. OBJECTIVES OF THE STUDY

The following objectives are set in the present study:

1. To find the level of value conflict of B.Ed. student-teachers.
2. To identify the level of mental health of B.Ed. student-teachers.
3. To find the level of social maturity of B.Ed. student-teachers.
4. To find the level of value conflict of B.Ed. student-teachers in terms of the gender.
5. To find the level of value conflict of B.Ed. student-teachers in terms of the age groups.
6. To find the level of value conflict of B.Ed. student-teachers in terms of the educational qualification.
7. To find the level of value conflict of B.Ed. student-teachers in terms of the marital status.
8. To find the level of value conflict of B.Ed. student-teachers in terms of the subject of study.
9. To find the level of value conflict of B.Ed. student-teachers in terms of the type of the college.
10. To find the level of value conflict of B.Ed. student-teachers in terms of the location of the college.
11. To find the level of value conflict of B.Ed. student-teachers in terms of the religion.
12. To find the level of value conflict of B.Ed. student-teachers in terms of the residential locality.
13. To find the level of value conflict of B.Ed. student-teachers in terms of the filial order.
14. To find the level of value conflict of B.Ed. student-teachers in terms of the type of family.
15. To find the level of value conflict of B.Ed. student-teachers in terms of father’s educational qualifications.
16. To find the level of value conflict of B.Ed. student-teachers in terms of mother’s educational qualification.
17. To find the level of value conflict of B.Ed. student-teachers in terms of father’s occupation.
18. To find the level of value conflict of B.Ed. student-teachers in terms of mother’s occupation.
19. To find the level of value conflict of B.Ed. student-teachers in terms of monthly income of the family.
20. To find the level of mental health of B.Ed. student-teachers in terms of gender.
21. To find the level of mental health of B.Ed. student-teachers in terms of the age groups.
22. To find the level of mental health of B.Ed. student-teachers in terms of the educational qualification.
23. To find the level of mental health of B.Ed. student-teachers in terms of the marital status.
24. To find the level of mental health of B.Ed. student-teachers in terms of the subject of study.
25. To find the level of mental health of B.Ed. student-teachers in terms of the type of college.
26. To find the level of mental health of B.Ed. student-teachers in terms of the location of the college.
27. To find the level of mental health of B.Ed. student-teachers in terms of the religion.

28. To find the level of mental health of B.Ed. student-teachers in terms of the residential locality.

29. To find the level of mental health of B.Ed. student-teachers in terms of the filial order.

30. To find the level of mental health of B.Ed. student-teachers in terms of the type of family.

31. To find the level of mental health of B.Ed. student-teachers in terms of father’s educational qualifications.

32. To find the level of mental health of B.Ed. student-teachers in terms of mother’s educational qualification.

33. To find the level of mental health of B.Ed. student-teachers in terms of father’s occupation.

34. To find the level of mental health of B.Ed. student-teachers in terms of mother’s occupation.

35. To find the level of mental health of B.Ed. student-teachers in terms of monthly income of the family.

36. To find the level of social maturity of B.Ed. student-teachers in terms of the gender.

37. To find the level of social maturity of B.Ed. student-teachers in terms of the age groups.

38. To find the level of social maturity of B.Ed. student-teachers in terms of the educational qualification.

39. To find the level of social maturity of B.Ed. student-teachers in terms of the marital status.
40. To find the level of social maturity of B.Ed. student-teachers in terms of the subject of study.
41. To find the level of social maturity of B.Ed. student-teachers in terms of the type of college.
42. To find the level of social maturity of B.Ed. student-teachers in terms of the location of the college.
43. To find the level of social maturity of B.Ed. student-teachers in terms of the religion.
44. To find the level of social maturity of B.Ed. student-teachers in terms of the residential locality.
45. To find the level of social maturity of B.Ed. student-teachers in terms of the filial order.
46. To find the level of social maturity of B.Ed. student-teachers in terms of the type of family.
47. To find the level of social maturity of B.Ed. student-teachers in terms of father’s educational qualification.
48. To find the level of social maturity of B.Ed. student-teachers in terms of mother’s educational qualification.
49. To find the level of social maturity of B.Ed. student-teachers in terms of father’s occupation.
50. To find the level of social maturity of B.Ed. student-teachers in terms of mother’s occupation.
51. To find the level of social maturity of B.Ed. student-teachers in terms of monthly income of the family.
52. To find whether there is any significant association between value conflict and mental health among B.Ed. student-teachers.
53. To find whether there is any significant association between mental health and social maturity among B.Ed. student-teachers.

54. To find whether there is any significant association between value conflict and social maturity among B.Ed. student-teachers.

3.7. HYPOTHESES OF THE STUDY

1. The value conflict of B.Ed. student-teachers is high.
2. The B.Ed. student-teachers are having good mental health
3. The social maturity of B.Ed. student-teachers is high.
4. There is no significant difference between male and female B.Ed. student-teachers in their value conflict.
5. There is no significant difference between 21-30 and 31-40 age group B.Ed. student-teachers in their value conflict.
6. There is no significant difference among UG and PG B.Ed. student-teachers in their value conflict.
7. There is no significant difference between married and unmarried B.Ed. student-teachers in their value conflict.
8. There is no significant difference between arts and science B.Ed. student-teachers in their value conflict.
9. There is no significant difference between government and self finance college B.Ed. student-teachers in their value conflict.
10. There is no significant difference between rural and urban college B.Ed. student-teachers in their value conflict.
11. There is no significant difference among hindu, muslim and christian B.Ed. student-teachers in their value conflict.
12. There is no significant difference between rural and urban B.Ed. student-teachers in their value conflict.

13. There is no significant difference among B.Ed. student-teachers in their value conflict, with reference to their filial order.

14. There is no significant difference between nuclear family and joint family in their value conflict of B.Ed. student-teachers.

15. There is no significant difference among the B.Ed. student-teachers in their value conflict with reference to their father’s educational qualification (i.e. illiterate, educated upto school level or college level).

16. There is no significant difference among the B.Ed. student-teachers in their value conflict with reference to their mother’s educational qualification. (i.e. illiterate educated upto school level or college level).

17. There is no significant difference among B.Ed. student-teachers in their value conflict with reference to their father’s occupation (i.e., agriculture, government employee or private employee).

18. There is no significant difference among B.Ed. student-teachers in their value conflict with reference to their mother’s occupation. (i.e., house wife, government employee or private employee).

19. There is no significant difference among B.Ed. student-teachers in their value conflict with reference to their family monthly income. (i.e., below ₹10,000 between ₹10,000 and ₹30,000 and above ₹30,000.

20. There is no significant difference between male and female of B.Ed. student-teachers in their mental health.

21. There is no significant difference between 21-30 and 31-40 age group of B.Ed. student-teachers in their mental health.
22. There is no significant difference between UG and PG, B.Ed. student-teachers in their mental health.

23. There is no significant difference between married and unmarried B.Ed. student-teachers in their mental health.

24. There is no significant difference between arts and science B.Ed. student-teachers in their mental health.

25. There is no significant difference between government and self finance college B.Ed. student-teachers in their mental health.

26. There is no significant difference between rural college and urban college B.Ed. student-teachers in their mental health.

27. There is no significant difference among Hindu, Muslim and Christian B.Ed. student-teachers in their mental health.

28. There is no significant difference between rural and urban B.Ed. student-teachers in their mental health.

29. There is no significant difference among the B.Ed. student-teachers in their mental health with reference to their filial order.

30. There is no significant difference between nuclear and joint families B.Ed. student-teachers in their mental health.

31. There is no significant difference among the B.Ed. student-teachers in their mental health with reference to their father’s educational qualifications (i.e., illiterate, educated up to school level or college level).

32. There is no significant difference among the B.Ed. student-teachers in their mental health with reference to their mother’s educational qualifications (i.e., illiterate, educated up to school level or college level).
33. There is no significant difference among the B.Ed. student-teachers in their mental health with reference to their father’s occupation. (i.e., agriculture, government employee or private employee).

34. There is no significant difference among the B.Ed. student-teachers in their mental health with reference to their mother’s occupation (i.e., house wife, government employee or private employee).

35. There is no significant difference among the B.Ed. student-teachers in their mental health with reference to their family monthly income (i.e., below 10,000, between 10,000 to 30,000 and above 30,000).

36. There is no significant difference between male and female B.Ed. student-teachers in their social maturity.

37. There is no significant difference between 21-30 and 31-40 age group of B.Ed. student-teachers in their social maturity.

38. There is no significant difference between UG and PG B.Ed. student-teachers in their social maturity.

39. There is no significant difference between married and unmarried B.Ed. student-teachers in their social maturity.

40. There is no significant difference between arts and science B.Ed. student-teachers in their social maturity.

41. There is no significant difference between government college and self finance college B.Ed. student-teachers in their social maturity.

42. There is no significant difference between rural college and urban college B.Ed. student-teachers in their social maturity.

43. There is no significant difference among the B.Ed. student-teachers in social maturity with reference to their religion.
44. There is no significant difference between rural and urban B.Ed. student-teachers in their social maturity.

45. There is no significant difference among B.Ed. student-teachers in their social maturity with reference to their filial order.

46. There is no significant difference between nuclear and joint families B.Ed. student-teachers in their social maturity.

47. There is no significant difference among the B.Ed. student-teachers in their social maturity with reference to their father’s educational qualification (i.e., illiterate, educated upto school level or college level).

48. There is no significant difference among the B.Ed. student-teachers in their social maturity with reference to their mother’s educational qualification (i.e., illiterate, educated upto school level or college level).

49. There is no significant difference among B.Ed. student-teachers in their social maturity with reference to their father’s occupation (i.e., agriculture, government employee or private employee).

50. There is no significant difference among the B.Ed. student-teachers in their social maturity with reference to their mother’s occupation. (i.e. house wife, government employee or private employee).

51. There is no significant difference among the B.Ed. student-teachers in their social maturity with reference to their family monthly income i.e., below ₹10,000 between ₹10,000 and ₹30,000 and above ₹30,000.

52. There is no significant relationship between the value conflict and mental health of B.Ed. student-teachers
53. There is no significant relationship between the mental health and social maturity among B.Ed. student-teachers

54. There is no significant relationship between the value conflict and social maturity of B.Ed. student-teachers

3.8. METHODS OF RESEARCH

All research involve the elements of observation, description and analysis of what happens under certain circumstances. Researchers use different methods in their research activities. The solution of such method depends on the nature, objectives and population of the study. A simple three-point analysis may be used to classify research. Usually all studies fall under one or a combination of these types. Important methods of research are the following:

1. Historical method
2. Experimental method, and
3. Survey or Descriptive method

3.8.1. Historical Method

It is concerned with the past. In its attempts are made to find out the past in the perspective of the present. Its process involves investigating, recording, analyzing and interpreting the events of the past for arriving at a generalization. It answers the question what really was?

3.8.2. Experimental Method

It may be defined as the study of relationship among the variables both manipulated and measured. It simply enables the researcher to improve the
conditions under which the research is being conducted and to arrive at more precise results. Attempts are made to find out the cause and effect relationship.

### 3.8.3. Survey Method

It is concerned with the present and attempts are made to find out the present position of the phenomena, which is being investigated. Its process involves description, recording, analyzing and interpreting conditions that now exist.

This method describes and interprets what exists at present in the form of conditions, practices, processes, trends, effects, attitudes, beliefs etc. It is concerned with the phenomena that are in typical or normal.

Survey is a procedure in which data is systematically collected from a population through some form of direct solicitation such as face-to-face interview, questionnaire or schedule. According to John W. Best (1986), “the survey is an extensive and cross-sectional dealing with a relatively large number of cases at a particular time and yielding statistics that are abstract from particular cases” (p.106).

### 3.9. NATURE OF THE SURVEY METHOD

The nature of the survey method is as given below

1. It deals with the present
2. It is oriented towards the determination of the status of a given phenomenon rather than isolating causing factors accounting for its existence.
3. It is generally based on cross-sectional samples.
4. It has a fact-finding approach.
5. It studies significant relationship among phenomena.

3.10. CHARACTERISTICS OF SURVEY METHOD

The following are the characteristics of survey method:

(1) It gathers data from a relatively large number of cases.
(2) It is essentially cross sectional of what exists
(3) It is concerned with generalized statistics of the whole population or of the sample.
(4) It involves clearly defined problems and objectives, Description may be either verbal or expressed in mathematical symbols.
(5) The great range of phenomena forming the subject of educational surveys may be classified as:

(a) Language conditions related to learning buildings, furniture, libraries etc.
(b) Behavioral conditions (behaviour of pupils, teachers and parents).
(c) The result of learning or the pupil’s ability to learn (achievement of basic skills, information or attitudes).

3.11. SURVEY RESEARCH

Survey research studies large and small populations by selecting and studying samples from the population to discover the relative incidence, distribution and interrelations of sociological and psychological variables. Survey research is mostly devoted to the study of characteristics of the
populations under investigation. Survey research necessarily was not only meant for sociological and psychological research alone but its scope can be widened to include variables of economic nature for estimating incidence and distribution of welfare activities from economic point of view. Survey research is approached through the methods of personal interview, mailed questionnaires and personal discussions besides indirect oral investigation. Educational surveys are particularly versatile and practical, especially for the administrator because they identify the present.

**a) Selecting the problem**

The first step in any research is that of selecting the problem. Considerable attention must be paid to the selection of the problem. The basic goal of any research is to search for new facts. Therefore a subject which is overdone should not be selected. Too vague and unfamiliar problem should be avoided. Feasibility study of the problem must be taken into account. It is necessary to consider the availability of related research materials. The researcher’s capability and resources should be also taken into consideration while selecting the problem for the study.

**b) Development of research tools**

Development of research tool is an important step in any survey research. Instruments are needed to gather facts and information to be studied. Instruments will differ from one research to another. Such instruments are called tools. Research tools are constructed in the form of a questionnaire or interview schedule by the researcher.
c) Selection of sample

All the items under consideration in any field of research is known as universe or population. Sample is the limited number of items selected from the universe. The process of selection of sample is a very important step in any research. Different methods are available for the selection of sample. Appropriate sample design must be used for the sample selection.

d) Collection of data

Collection of data is the important stage in any survey research. In this stage data are collected by administering the already prepared questionnaire or by conducting interviews.

e) Analysis of data

Analysis of data should be done using appropriate statistics. There are three types of statistical applications.

(i) Descriptive analysis

In the descriptive analysis, generalization is limited to only particular group of individuals.

(ii) Differential analysis

Differential analysis involves the most important step by which the researcher is able to make the inferences involving the determination of the statistical significance of difference between groups. It involves the use of ‘t’ test and ‘f’ test. They are used to determine whether the performance of two groups are significantly related or not.
(iii) Correlation Analysis

The correlation analysis attempts to find out the relationship between two variables and to examine the strength of relationship of one variable on the another.

h) Findings and conclusions

A statement of findings and recommendations is presented at the end probably in a non-technical language, so that it can be easily understood by all concerned.

3.12. DEVELOPMENT OF THE TOOL

a) Value conflict, Mental Health and Social Maturity-Developed by the investigator

To measure the value conflict and mental health and social maturity the investigator prepared a scale by himself while developing the tool, the investigator had to understand the construction in addition to have adequate knowledge of various steps in the development of the tool. The development of the tool included the following steps:

a) Preparation of statements
b) Screening of the statements
c) Sample used for tryout
d) The draft tool and its administration
e) Instruction for scoring
f) Item analysis
a) Preparation of statements

The first step in the construction of the tool was the collection of number of statements about the topic. So, here statements related to value conflict, mental health and social maturity were collected. The value conflict, mental health and social maturity scales were prepared by discussions held with experts in the field of education and the guide. Besides this, the statements were prepared by the investigator with the aid of collected ideas from magazines, journals, research abstracts, reference books etc. By making use of these, each scale with 50 statements were prepared to include in the draft form of the tool.

b) Screening of the statements

The tool was then submitted to the guide and experts in the field of education to judge the suitability of the items. According to the suggestions given by the experts and concerned guide, few statements, which seemed to overlap with one another were modified. The vague items were revised and finally each 50 statements were selected for the tool. Each item of the value conflict and social maturity tool was arranged with five responses ‘Strongly Agree’, ‘Agree’, ‘Undecided’, ‘Disagree’ and ‘Strongly Disagree’. Each item of the mental health tool was arranged with five responses Always, Many time, Some time, Rarely, Never. The draft form of the tool was then printed.

c) Sample used for “try out”

The draft tool was subjected to a pilot study. The tool was administered to a sample of 40 B.Ed. student-teachers.
d) The draft tool and its administration

The subjects were met in their classroom after obtaining all the statements related to value conflict and social maturity. Each statement has five choices viz., ‘Strongly Agree’, ‘Agree’, ‘Undecided’, ‘Disagree’ and ‘Strongly Disagree’. Student-teachers were instructed to read each of the statements carefully and to answer them by making a tick mark against the answer, which they think as appropriate for themselves. Sufficient time was given to the student-teachers in order to respond properly.

e) Scoring procedure

For the purpose of scoring, numerical values were assigned. For ‘Strongly Agree’ five marks were given, for ‘Agree’ four marks, for ‘Undecided’ three marks, for ‘Disagree’ two marks and for ‘Strongly Disagree’ one mark. The score for the tool is the total of the scores obtained for all the items ranging from 50 to 250.

<table>
<thead>
<tr>
<th>Category</th>
<th>Value conflict score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>120 -160</td>
</tr>
<tr>
<td>Medium</td>
<td>161-200</td>
</tr>
<tr>
<td>High</td>
<td>201-240</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category</th>
<th>Social maturity score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>120 -160</td>
</tr>
<tr>
<td>Medium</td>
<td>161-200</td>
</tr>
<tr>
<td>High</td>
<td>201-240</td>
</tr>
</tbody>
</table>
f) Mental Health Inventory

Mental Health Inventory was developed and standardized by the investigator himself (2011). The scale consists of 50 statements with 5 alternative responses for each statement as Always, Many times, Sometimes, Rarely and Never anchored from 1 to 5. The statements are categorized under no dimensions. For true-keyed statements the scoring of 1, 2, 3, 4, 5 was given to Never, Rarely, Sometimes, Many times, Always and Reverse for false-keyed statements. Out of 50 statements 38 statements are rated negatively while 12 statements positively. Total score is calculated and categorized as very good, Good, Average, Poor and Very poor. High score indicates better mental health. The classification is shown below: According to the score obtained from the B.Ed. student-teachers, they were grouped into 5 categories.

<table>
<thead>
<tr>
<th>Category</th>
<th>Mental health score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very good</td>
<td>245 &amp; above</td>
</tr>
<tr>
<td>Good</td>
<td>226 – 244</td>
</tr>
<tr>
<td>Average</td>
<td>207 – 226</td>
</tr>
<tr>
<td>Poor</td>
<td>187 – 206</td>
</tr>
<tr>
<td>Very poor</td>
<td>Below 187</td>
</tr>
</tbody>
</table>

3.13. PILOT STUDY

3.13.1. Value conflict

The value conflict scale with 50 statements were subjected to pilot study. The questionnaire were administered to 40 B.Ed. student-teachers. The responses were analysed individually those items which secured a reliability value at 0.6 and above have been selected and included in the final tool.

The following items have a reliability value lesser than 0.6.
1, 3, 5, 6, 7, 11, 16, 18, 26, 31, 32, 42, 46, 47, 48 and 50 total 16 items. These statements were subsequently changed and another pilot study were undertaken subsequently with 40 B.Ed. student-teachers as subject. Once again item analysis was undertaken. As all the items showed a reliability were included in the final tool.

### 3.13.2. Mental health

The mental health scale with 50 statements were subjected to pilot study. The questionnaire were administered to 40 B.Ed. student-teachers. The responses were analysed individually those items which secured a reliability value at 0.6 and above have been selected and included in the final tool.

The following items have a reliability value lesser than 0.6.

3, 10, 15, 16, 17, 20, 22, 23, 30, 31, 32, 36, 41 and 43 total 13 items. These statements were subsequently changed and another pilot study was undertaken subsequently with 40 B.Ed. student-teachers as subject. Once again item analysis was undertaken. As all the items showed a reliability were included in the final tool.

### 3.13.3. Social maturity

The social maturity scale with 50 statements were subjected to pilot study. The questionnaire were administered to 40 B.Ed. student-teachers. The responses were analysed individually those items which secured a reliability value at 0.6 and above have been selected and included in the final tool.

The following items have a reliability value lesser than 0.6.

8, 9, 16, 18, 19, 20, 23, 30, 46, 47, 48, 49 and 50 total 12 items. These statements were subsequently changed and another pilot study was undertaken subsequently with 40 B.Ed. student-teachers as subject. Once again item
analysis was undertaken. As all the items showed a reliability were included in the final tool.

**Description of the tools**

<table>
<thead>
<tr>
<th>S. No</th>
<th>Name of the tool</th>
<th>Total number of items</th>
<th>Nature of statements</th>
<th>Item numbers</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Strongly agree</td>
</tr>
<tr>
<td>1</td>
<td>Value conflict scale developed by the investigator</td>
<td>50</td>
<td>Positive</td>
<td>4, 5, 6, 9, 10, 11, 12, 13, 15, 17, 18, 19, 20, 23, 24, 25, 27, 28, 29, 30, 33, 35, 37, 38, 40, 41, 45, 46, 49. (Total-29)</td>
<td>5 4 3 2 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Negative</td>
<td>1, 2, 3, 7, 8, 14, 16, 21, 22, 26, 31, 32, 34, 36, 39, 42, 43, 44, 47, 48, 50 (Total-21)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2</td>
<td>Mental Health scale developed by the investigator</td>
<td>50</td>
<td>Positive</td>
<td>2, 3, 4, 5, 8, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 43, 44, 45, 46, 48, 50 (Total 38)</td>
<td>5 4 3 2 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Negative</td>
<td>1, 6, 7, 9, 13, 21, 22, 29, 34, 42, 47, 49 (Total -12)</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
f) Item analysis

Item analysis is an important phase in tool construction. Through this, items can be analyzed qualitatively in terms of their content and form and quantitatively in terms of their statistical properties.

Qualitative analysis includes the construction of content validity and the evaluation in terms of an effective item writing procedure. Quantitative analysis on the other hand, includes principally the measurement of item difficulty and item discrimination. Both validity and reliability of any test depend ultimately on the characteristics of its items. High reliability and validity can be built into a test in advance through item analysis.


g) Split–half technique

The test first divided into two equivalent ‘halves’ and the scores on the half of the items are correlated with in the scores on the other half. From the
reliability of the half test the self correlation of the whole test is estimated by Spearman-Brown prophecy formula.

Correlation formula \[ r = \frac{2 \times r_n}{1 + r_n}\]

3.14. VALIDITY OF THE TOOLS

3.14.1. Validity of the test

Validity means the degree of accuracy with which it does measure what purpose of measure. A single test item is valid when it does the job expected of it, this is the most important feature of good examination.

It is difficult for a teacher to ascertain whether a test is measuring effectively what is supposed to measure, you might be skeptical about its validity. Skepticism in the right degree is a good trait. There is no sample formula to follow in determining the validity of the test. A test may be valid to one purpose but not the other. A test may be measure when it is supposed but not with another.

3.14.2. Value conflict

The value conflict scale is found to be having both face validity and content validity. The term face validity means that a test looks valid party to those who are in the field. The face validity of the scale was determined by submitting it to a panel of three experts. According to them, the tool can measure objectivity, the value conflict. By verifying the content of the test using authentic literature, the content validity of the test was also established. It was also made sure with the help of the experts in the field. Depending upon the
modification suggested by the panel of experts, the items in the tools were modified and enhanced. The investigator used Gottman split-half technique for establishing validity of the value conflict tool. The tools have been administrated to 40 B.Ed. student-teachers. Their responses were collected and stored by investigator the correlation coefficient was found to be 0.80 for value conflict scale that is, considered to have high validity.

3.14.3. Mental health

The mental health scale is found to be having both face validity and content validity. The term face validity means that a test looks valid party to those who are in the field. The face validity of the scale was determined by submitting it to a panel of three experts. According to them, the tool can measure objectivity, the mental health. By verifying the content of the test using authentic literature, the content validity of the test were also established. It was also made sure with the help of the experts in the field. Depending upon the modification suggested by the panel of experts, the items in the tools were modified and enhanced. The investigator used Gottman split-half technique for establishing validity of the mental health tool. The tools have been administrated to 40 B.Ed. student-teachers. Their responses were collected and stored by the investigator. The correlation coefficient was found to be 0.83 for value conflict scale that is, considered to have high validity.

3.14.4. Social maturity

The social maturity scale is found to have both face validity and content validity. The term face validity means that a test looks valid party to those who are in the field. The face validity of the scale was determined by submitting it to
a panel of three experts. According to them, the tool can measure objectivity, the value conflict. By verifying the content of the test using authentic literature, the content validity of the test was also established. It was also made sure with the help of the experts in the field. Depending upon the modification suggested by the panel of experts, the items in the tools were modified and enhanced. The investigator used Gottman split-half technique for establishing validity of the mental health tool. The tools have been administrated to 40 B.Ed. student-teachers. Their responses were collected and stored by The investigator. The correlation coefficient was found to be 0.90 for social maturity scale i.e. considered to have high validity

3.15. RELIABILITY OF TOOLS

3.15.1. Reliability

J.P. Guildford ‘Briefly’ reliability is the proportion of the true variance is obtained scores.

Anne Astasi “The reliability of the test scores refers to the consistency of scores obtained by the same in differential and different occasions with different sets of equivalent items.”

3.15.2. Reliability of value conflict

Split-half Method was used to find out the reliability of the scale. The Split-half method has been generally favoured by researchers and therefore the Split-half items were scored separately and these two sets of score were then correlated showing the ‘r’. When applied the Spearman, Kenneth and P. Brown, reliability coefficient to the whole test it was found to be 0.76 for the value conflict inventory.
3.15.3. Reliability of Mental health

The mental health scale were tested for reliability on a sample of 40 B.Ed. student-teachers. The reliability co-efficient was calculated by split-half method and was found to be 0.71 and significant at 0.01 level of significance.

3.15.4. Reliability of Social maturity

The social maturity scale was tested for reliability on a sample of 40 B.Ed. student-teachers. The reliability co-efficient was calculated by split half method and was found to be 0.86 and significant at 0.01 level of significance.

3.16. POPULATION AND SAMPLE

The group of individuals or unit under study is known as population. Sampling is the process of learning about the population on the basis of a sample drawn from it. Only a small representative part is studied and the conclusion is drawn for the entire universe or whole population.

In the present study the investigator has selected the sample in a small portion of a population selected for observation and analysis. From the total population the investigator has randomly selected 1000 B.Ed. student-teachers and the sample for the study from different college of education situated in the district of Thanjavur in Tamil Nadu.
## Table 3.1

**Sample selected for the study**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of the institutions</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Tamil University, College of Education, Thanjavur</td>
<td>90</td>
</tr>
<tr>
<td>2.</td>
<td>Govt. College of Education, Orathanadu</td>
<td>100</td>
</tr>
<tr>
<td>3.</td>
<td>MASS College of Education, Kumbakonam</td>
<td>85</td>
</tr>
<tr>
<td>4.</td>
<td>ANNAI College of Education, Kovilacheri</td>
<td>100</td>
</tr>
<tr>
<td>5.</td>
<td>Bharath College of Education, Thanjavur</td>
<td>86</td>
</tr>
<tr>
<td>6.</td>
<td>R.D.B. College of Education, Papanasam</td>
<td>16</td>
</tr>
<tr>
<td>7.</td>
<td>ARR College of Education, Dharasuram</td>
<td>57</td>
</tr>
<tr>
<td>8.</td>
<td>St. Xavier College of Education, Maruthanallur</td>
<td>38</td>
</tr>
<tr>
<td>9.</td>
<td>Star Lion College of Education, Ayyampettai</td>
<td>86</td>
</tr>
<tr>
<td>10.</td>
<td>Annai Fathima College of Education, Kovilacheri</td>
<td>60</td>
</tr>
<tr>
<td>11.</td>
<td>Dr. Vellaisamy Nadar College of Education, Thanjavur</td>
<td>83</td>
</tr>
<tr>
<td>12.</td>
<td>John De Britto College of Education, Thanjavur</td>
<td>73</td>
</tr>
<tr>
<td>13.</td>
<td>ARR College of Education for Women, Kumbakonam</td>
<td>66</td>
</tr>
<tr>
<td>14.</td>
<td>K.S.K. College of Education Dharasuram</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1000</strong></td>
</tr>
</tbody>
</table>
3.17. COMPOSITION OF THE SAMPLE SELECTED FOR THE STUDY

Gender, age, educational qualification, marital status, subject, type of college, location of college, religion, locality of residency, filial order, type of family, father educational qualification, mother educational qualification, father occupation, mother occupation and family income are the demographic and institutional variables selected for the study.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Variables</th>
<th>Categories</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Entire sample</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Gender</td>
<td>Male</td>
<td>189</td>
<td>18.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>811</td>
<td>81.1</td>
</tr>
<tr>
<td>2.</td>
<td>Age group</td>
<td>21 – 30</td>
<td>928</td>
<td>92.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>31 – 40</td>
<td>72</td>
<td>7.2</td>
</tr>
<tr>
<td>3.</td>
<td>Educational Qualification</td>
<td>Under graduate</td>
<td>686</td>
<td>68.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Post graduate</td>
<td>314</td>
<td>31.4</td>
</tr>
<tr>
<td>4.</td>
<td>Marital status</td>
<td>Married</td>
<td>221</td>
<td>22.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unmarried</td>
<td>779</td>
<td>77.9</td>
</tr>
<tr>
<td>5.</td>
<td>Subject</td>
<td>Arts</td>
<td>417</td>
<td>41.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Science</td>
<td>583</td>
<td>58.3</td>
</tr>
<tr>
<td>6.</td>
<td>Type of college</td>
<td>Government</td>
<td>189</td>
<td>18.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Self finance</td>
<td>811</td>
<td>81.1</td>
</tr>
<tr>
<td>7.</td>
<td>Location of college</td>
<td>Rural</td>
<td>784</td>
<td>78.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Urban</td>
<td>216</td>
<td>21.6</td>
</tr>
<tr>
<td>8.</td>
<td>Religion</td>
<td>Hindu</td>
<td>847</td>
<td>84.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Muslim</td>
<td>23</td>
<td>2.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Christian</td>
<td>130</td>
<td>13.0</td>
</tr>
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<td>9.</td>
<td>Locality of residency</td>
<td>Rural</td>
<td>740</td>
<td>74.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Urban</td>
<td>26</td>
<td>26.0</td>
</tr>
<tr>
<td>S. No.</td>
<td>Variables</td>
<td>Categories</td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>-------</td>
<td>----------------</td>
<td>--------------</td>
<td>-----------</td>
<td>------------</td>
</tr>
<tr>
<td>10.</td>
<td>Filial order</td>
<td>First</td>
<td>477</td>
<td>47.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Second</td>
<td>271</td>
<td>27.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Third</td>
<td>169</td>
<td>16.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fourth</td>
<td>83</td>
<td>8.3</td>
</tr>
<tr>
<td>11.</td>
<td>Type of family</td>
<td>Nuclear</td>
<td>665</td>
<td>66.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Joint</td>
<td>335</td>
<td>33.5</td>
</tr>
<tr>
<td>12.</td>
<td>Father’s Educations</td>
<td>College</td>
<td>639</td>
<td>63.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>School</td>
<td>183</td>
<td>18.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Illiterate</td>
<td>178</td>
<td>17.8</td>
</tr>
<tr>
<td>13.</td>
<td>Mother’s Education</td>
<td>College</td>
<td>37</td>
<td>3.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>School</td>
<td>743</td>
<td>74.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Illiterate</td>
<td>220</td>
<td>22.0</td>
</tr>
<tr>
<td>14.</td>
<td>Father’s Occupation</td>
<td>Agriculture</td>
<td>639</td>
<td>63.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Government employment</td>
<td>183</td>
<td>18.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Private employment</td>
<td>178</td>
<td>17.8</td>
</tr>
<tr>
<td>15.</td>
<td>Mother’s Occupation</td>
<td>House wife</td>
<td>937</td>
<td>93.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Government employment</td>
<td>39</td>
<td>3.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Private employment</td>
<td>24</td>
<td>2.4</td>
</tr>
<tr>
<td>16.</td>
<td>Family’s monthly income</td>
<td>Below ₹10000</td>
<td>445</td>
<td>44.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>₹10000-30000</td>
<td>435</td>
<td>43.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Above ₹30000</td>
<td>120</td>
<td>12.0</td>
</tr>
</tbody>
</table>
Table 3.2
Gender-wise distribution

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Sex</th>
<th>Involved strength</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Male</td>
<td>189</td>
<td>18.90</td>
</tr>
<tr>
<td>2.</td>
<td>Female</td>
<td>811</td>
<td>81.10</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1000</td>
<td>100</td>
</tr>
</tbody>
</table>

From the above table, it is clear that 18.90% of the B.Ed. student-teachers are male and 81.10% of the B.Ed. student-teachers are female.

Figure 3.1
Gender-wise distribution
Table 3.3
Age group-wise distribution

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Age group</th>
<th>Involved strength</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>21 – 30</td>
<td>928</td>
<td>92.80</td>
</tr>
<tr>
<td>2.</td>
<td>31 – 40</td>
<td>72</td>
<td>7.20</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1000</td>
<td>100</td>
</tr>
</tbody>
</table>

From the above table, it is clear that 92.80% of the B.Ed. student-teachers are 21 to 30 age group and 7.20% of the B.Ed. student-teachers are 31 – 40 age group.

Figure 3.2
Age group-wise distribution
<table>
<thead>
<tr>
<th>S. No.</th>
<th>Educational Qualification</th>
<th>Involved strength</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Under graduate</td>
<td>686</td>
<td>68.60</td>
</tr>
<tr>
<td>2.</td>
<td>Post graduate</td>
<td>314</td>
<td>31.40</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1000</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

From the above table, it is clear that 68.60% of the B.Ed. student-teachers are under graduate and 31.40% of the B.Ed. student-teachers are post graduate.
Table 3.5
Marital status-wise distribution

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Marital Status</th>
<th>Involved strength</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Married</td>
<td>221</td>
<td>22.10</td>
</tr>
<tr>
<td>2</td>
<td>Unmarried</td>
<td>779</td>
<td>77.90</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1000</td>
<td>100</td>
</tr>
</tbody>
</table>

From the above table, it is clear that 22.10% of the B.Ed. student-teachers are married and 77.90% of the B.Ed. student-teachers are unmarried.

Figure 3.4
Marital status-wise distribution

From the above table, it is clear that 22.10% of the B.Ed. student-teachers are married and 77.90% of the B.Ed. student-teachers are unmarried.
Table 3.6

Subject-wise distribution

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Subject</th>
<th>Involved strength</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Arts</td>
<td>417</td>
<td>41.70</td>
</tr>
<tr>
<td>2</td>
<td>Science</td>
<td>583</td>
<td>58.30</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1000</td>
<td>100</td>
</tr>
</tbody>
</table>

From the above table, it is clear that 41.70% of the B.Ed. student-teachers are studied arts group and 58.30% of the B.Ed. student-teachers are studied science group.

Figure 3.5

Subject-wise distribution
Table 3.7
Type of the college-wise distribution

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Type of college</th>
<th>Involved strength</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Government</td>
<td>189</td>
<td>18.90</td>
</tr>
<tr>
<td>2.</td>
<td>Self finance</td>
<td>811</td>
<td>81.10</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1000</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

From the above table, it is clear that 18.90% of the B.Ed. student-teachers are studying in the government institution, and 81.10% of the B.Ed. student-teachers are studying in the self finance institution.

Figure 3.6
Type of the college-wise distribution
Table 3.8
Location of the college-wise distribution

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Location of the college</th>
<th>Involved strength</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Rural</td>
<td>784</td>
<td>78.40</td>
</tr>
<tr>
<td>2.</td>
<td>Urban</td>
<td>216</td>
<td>21.60</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1000</td>
<td>100</td>
</tr>
</tbody>
</table>

From the above table, it is clear that 78.40% of the B.Ed. student-teachers are studying in the rural institution, and 21.60% of the B.Ed. student-teachers are studying in the urban institution.

Figure 3.7
Location of the college-wise distribution
Table 3.9

Religion-wise distribution

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Religion</th>
<th>Involved strength</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Hindu</td>
<td>847</td>
<td>84.70</td>
</tr>
<tr>
<td>2.</td>
<td>Muslim</td>
<td>23</td>
<td>2.30</td>
</tr>
<tr>
<td>3.</td>
<td>Christian</td>
<td>130</td>
<td>13.00</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1000</td>
<td>100</td>
</tr>
</tbody>
</table>

From the above table, it is clear that 84.70% of the B.Ed. student-teachers are Hindu, 2.30% of the B.Ed. student-teachers are Muslim and 13.00% B.Ed. student-teachers are Christian.

Figure 3.8

Religion-wise distribution
Table 3.10
Locality of the residency-wise distribution

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Residency</th>
<th>Involved strength</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Rural</td>
<td>740</td>
<td>74.00</td>
</tr>
<tr>
<td>2.</td>
<td>Urban</td>
<td>260</td>
<td>26.00</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1000</td>
<td>100</td>
</tr>
</tbody>
</table>

From the above table, it is clear that 74.00% of the B.Ed. student-teachers are rural and 26.00% of the B.Ed. student-teachers are urban.

Figure 3.9
Locality of the residency-wise distribution
Table 3.11
Filial order-wise distribution

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Filial order</th>
<th>Involved strength</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>First</td>
<td>477</td>
<td>47.70</td>
</tr>
<tr>
<td>2.</td>
<td>Second</td>
<td>271</td>
<td>27.10</td>
</tr>
<tr>
<td>3.</td>
<td>Third</td>
<td>169</td>
<td>16.90</td>
</tr>
<tr>
<td>4.</td>
<td>Fourth</td>
<td>83</td>
<td>8.30</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1000</td>
<td>100</td>
</tr>
</tbody>
</table>

From the above table, it is clear that 47.70% of the B.Ed. student-teachers are first filial order, 27.10% of the B.Ed. student-teachers are second filial order, 16.90% of the B.Ed. student-teachers are third filial order and 8.30% of the B.Ed. student-teachers are fourth filial order.

Figure 3.10
Filial order-wise distribution

- First: 47.70%
- Second: 27.10%
- Third: 16.90%
- Fourth: 8.30%
Table 3.12

Type of family-wise distribution

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Type of family</th>
<th>Involved strength</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Nuclear</td>
<td>665</td>
<td>66.50</td>
</tr>
<tr>
<td>2.</td>
<td>Joint</td>
<td>335</td>
<td>33.50</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1000</td>
<td>100</td>
</tr>
</tbody>
</table>

From the above table, it is clear that 66.50% of the B.Ed. student-teachers are nuclear family 33.50% B.Ed. student-teachers are joint family.

Figure 3.11

Type of family-wise distribution

![Pie chart showing 66.50% Nuclear and 33.50% Joint]
### Table 3.13

Father’s educational qualification-wise distribution

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Father’s qualification</th>
<th>Involved strength</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>College</td>
<td>139</td>
<td>13.90</td>
</tr>
<tr>
<td>2.</td>
<td>School</td>
<td>731</td>
<td>73.10</td>
</tr>
<tr>
<td>3.</td>
<td>Illiterate</td>
<td>130</td>
<td>13.00</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1000</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

From the above table, it is clear that 13.90% of the B.Ed. student-teachers father educational qualification are college level, 73.10% of the B.Ed. student-teachers father educational qualification are school level ad 13.00% of the B.Ed. student-teachers fathers educational qualification are Illiterate.

### Figure 3.12

Father’s educational qualification-wise distribution
Table 3.14

Mother’s educational qualification-wise distribution

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Mother’s qualification</th>
<th>Involved strength</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>College</td>
<td>37</td>
<td>3.70</td>
</tr>
<tr>
<td>2.</td>
<td>School</td>
<td>743</td>
<td>74.30</td>
</tr>
<tr>
<td>3.</td>
<td>Illiterate</td>
<td>220</td>
<td>22.00</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1000</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

From the above table, it is clear that 3.70% of the B.Ed. student-teachers mother’s educational qualification are college level, 74.30% of the B.Ed. student-teachers mother education are school level and 22.00% of the B.Ed. student-teachers mother’s are Illiterate.

Figure 3.13

Mother’s educational qualification-wise distribution
Table 3.15

Father’s occupational-wise distribution

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Father’s occupation</th>
<th>Involved strength</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Agriculture</td>
<td>639</td>
<td>63.90</td>
</tr>
<tr>
<td>2.</td>
<td>Government employment</td>
<td>183</td>
<td>18.30</td>
</tr>
<tr>
<td>3.</td>
<td>Private employment</td>
<td>178</td>
<td>17.80</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1000</td>
<td>100</td>
</tr>
</tbody>
</table>

From the above table, it is clear that 63.90% of the B.Ed. student-teachers father’s occupation are agriculture, 18.30% of the B.Ed. student-teachers father’s occupation are government employment and 17.80% of the B.Ed. student-teachers father’s occupation are private employment.

Figure 3.14

Father’s occupational-wise distribution

- Agriculture
- Government Employment
- Private employment
### Table 3.16

**Mothers occupational-wise distribution**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Mother’s occupation</th>
<th>Involved strength</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>House wife</td>
<td>937</td>
<td>93.70</td>
</tr>
<tr>
<td>2.</td>
<td>Government employment</td>
<td>39</td>
<td>3.90</td>
</tr>
<tr>
<td>3.</td>
<td>Private employment</td>
<td>24</td>
<td>2.40</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1000</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

From the above table, it is clear that 93.70% of the B.Ed. student-teachers mother’s occupation are housewife, 3.90% of the B.Ed. student-teachers mother’s occupation are government employment and 2.40% of the B.Ed. student-teachers mother’s occupation are private employment.

### Figure 3.15

**Mother’s occupational-wise distribution**

- **Housewife**: 93.70%
- **Government Employment**: 3.90%
- **Private Employment**: 2.40%
Table 3.17

Family monthly income-wise distribution

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Monthly income (in ₹)</th>
<th>Involved strength</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Below 10,000/-</td>
<td>445</td>
<td>44.50</td>
</tr>
<tr>
<td>2.</td>
<td>10,000-30,000/-</td>
<td>435</td>
<td>43.50</td>
</tr>
<tr>
<td>3.</td>
<td>Above 30,000/-</td>
<td>120</td>
<td>12.00</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1000</td>
<td>100</td>
</tr>
</tbody>
</table>

From the above table, it is clear that 44.50% of the B.Ed. student-teachers parents income below ten-thousand 43.50% of the B.Ed. student-teachers parents income are between ten thousand and thirty thousand and 12.00% of the B.Ed. student-teachers parents income above thirty thousand.

Figure 3.16

Family monthly income-wise distribution
3.18. STATISTICAL TECHNIQUES USED FOR DATA ANALYSIS

In the present study following statistical techniques were used.

1. Percentage Analysis
2. Descriptive Analysis (Mean, Standard deviation).
3. Differential Analysis (t-values, F-test (ANOVA).
4. Correlation Analysis (r-values).

Suitable descriptive and inferential statistical techniques were used in the interpretation of the data to draw out a meaningful picture of results from the collected data. In the present study, the following statistical means were used.

I. MEAN

Mean \( \bar{X} = A + \frac{\sum fd}{\sum f} \times i \)

where,  
\( A = \) Assumed mean  
\( f = \) Frequency  
\( d = \) Deviation from the assumed mean  
\( i = \) Class interval

II. STANDARD DEVIATION

\( SD, \sigma = \sqrt{\frac{\sum fd^2}{N} - \left( \frac{\sum fd}{N} \right)^2 \times i} \)

where,  
\( f = \) Frequency  
\( d = \) Deviation from arithmetic mean  
\( i = \) Class interval  
\( N = \) total frequency
III. STANDARD ERROR DEVIATION

\[ \text{SED} = \sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}} \]

where, \( \sigma_1, \sigma_2 \) = Standard deviations
\( N_1, N_2 \) = Total number of sample

IV. 't' TEST

To complete the significance of difference between means of various measures, 't' test is used. 't' ratio is calculated from the relation.

\[ t \text{ ratio} = \frac{M_1 - M_2}{\sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}}} \]

where, \( M_1, M_2 \) = Means of groups
SED = Standard Error Deviation

V. CHI-SQUARE DISTRIBUTION

\[ \chi^2 = \frac{\sum (f_o - f_e)^2}{f_e} \]

where, \( f_o \) = Observed frequency
\( f_e \) = Expected frequency
VI. ‘F’-Test

\[ C = \frac{(\sum x_1 + \sum x_2 + \sum x_3)^2}{N} \]

\[ \text{TSS} = \sum x_1^2 + \sum x_2^2 + \sum x_3^2 - C \]

\[ \text{BSS} = \frac{(\sum x_1)^2}{n_1} + \frac{(\sum x_2)^2}{n_2} + \frac{(\sum x_3)^2}{n_3} - C \]

\[ \text{WSS} = \text{TSS} - \text{BSS} \]

\[ t_1 = \frac{\text{BSS}}{df_B} \quad t_2 = \frac{\text{WSS}}{df_W} \]

\[ f = \frac{t_1}{t_2} \]

where,

\[ C \] = Correction term

\[ \sum x_1, \sum x_2, \sum x_3 = \] Sum of the scores of each group

\[ N \] = Total number of the samples

\[ n_1, n_2, n_3 \] = Number of sample of each group

\[ \text{TSS} \] = Total number of squares

\[ \text{BSS} \] = Sum of squares between the group means.

\[ \text{WSS} \] = Sum of squares within the group

\[ df_B \] = Degrees of freedom for the between group means

\[ df_W \] = Degrees of freedom for the within group means

\[ t_1 \] = Mean sum of squares between the group

\[ t_2 \] = Mean sum of squares within the group
VII. CORRELATION

Correlation is the relationship between two or more paired variables between two or more sets of data. The degree of relationship may be measured by two co-efficient of correlation. This co-efficient of correlation may be identified by the symbol of ‘r’ of (Pearson).

The formula for calculating coefficient of correlation is

\[ r = \frac{N(\Sigma xy) - (\Sigma x)(\Sigma y)}{\sqrt{N\Sigma x^2 - (\Sigma x)^2}\sqrt{N\Sigma y^2 - (\Sigma y)^2}} \]

where x and y are the raw scores for each variable and N is the number of pairs of individuals.

Interpretation of the degree of relationship expressed in terms of its value is usually based on the following criteria.

r from +0.00 to 0.19 denotes indifferent or negligible relationship.

r from +0.20 to 0.39 denotes low positive or negative relationship.

r from +0.40 to 0.59 denotes substantial positive or negative relationship.

r from 0.60 to 0.79 denotes high positive or negative relationship.

r from 0.80 to 0.99 denotes very high positive or negative relationship.

Thus the correlation co-efficient is a precise way of stating the extent to which the variable is related to another and it is always to be judged with reference to the condition under which it is obtained and the objectives to the experiment.
Kari Pearson’s co-efficient of correlation is the most widely used method of measuring the degree of relationship between two variables. This coefficient assumes the following:

1. That there is linear relationship between the two variables.
2. That the two variables are causally related which means that one of the variable is independent and the other one is dependent; and
3. A large number of independent causes are operating in both variables so as to produce a normal distribution.

a) DELIMITATIONS OF THE STUDY

The delimitations in this investigation are listed below

- The investigator has chosen only a sample of 1000 B.Ed. student-teachers.
- This study is limited only to government and self finance college of education in Thanjavur District.

3.19. CONCLUSION

This chapter outlines the design of the present study, the procedure followed and the nature of the sample. It describes the hypotheses to be tested, the tools used the method of administration and scoring. The details of analysis and interpretation are given in the next chapter.