Chapter – III

Methodology

3.1: Introduction:

The most basic characteristic of science in general, is that it organizes and develops our knowledge of the world we live in. This characteristic is also applicable to psychology.

Scientific inquiry develops a way of thinking, a critical outlook and a curiosity to examine commonsense and traditional beliefs and their authenticity. In psychology we use scientific methods to study human behavior and examine traditional views.

The official beginning of a scientific approach in psychology was marked by the establishment of a formal Psychology Laboratory in Leipzig, Germany in 1879, under the direction of Wilhelm Wundt. With this came the first application of the scientific method to problems of psychology.

Psychology as a behavioral science aims to study the behavior in groups. Human beings are by nature social. They live in social situations from birth to death. Their personality is shaped by the interaction of external social environment. It is beyond imagination to think that a human being can develop harmoniously without social interaction. In modern psychology we study how society influences the behavior of an individual and vice versa, how individuals learn in a group and how the behavior of an individual originates in the social milieu. We know that the behavior of individuals is studied in terms of social interaction.
Psychology as a social science studies scientifically, cultural and social problems of many groups and group dynamics and has devised measures to solve social problems. Thus we see that psychology is a behavioral science.

Hypotheses are tentative explanations of events. To be useful to the scientist, however, hypotheses must be testable. Hypotheses that lack adequate definition, that are circular, or that appeal to ideas or forces outside the province of science are not testable. Hypotheses are often derived from theories. More than anything else, scientists are skeptical. A skeptical attitude is not always found among nonscientist, who may rush to accept “new discoveries” and extraordinary claims.

The scientific method is intended to meet three goals: description, prediction, and understanding. Both quantitative and qualitative researches are used to describe behavior. Observation is the principal basis of scientific description. When two measures correlate, we can predict the value of one measure by knowing the value of other. Understanding is achieved when the causes of a phenomenon are discovered. This requires that evidence be provided for conversation of events, that a time-order relationship exists, and that alternative causes be eliminated. When two potentially effective variables covary such that the independent effect of each variable on behavior cannot be determined, then the research is confounded. Confounding must be avoided in order to produce a study with internal validity. The research study must also have external validity which involves the extent to which research results can be generalized to different populations, settings, and conditions.
Scientific theory construction and testing provides the basis for a scientific approach to psychology. Theories have the important function of guiding research and organizing empirical knowledge. Finally, to answer the ethical questions raised by psychological research; it is important that the research in psychology should be carried out according to the highest standards of scientific integrity. Commencement of psychological research requires to make several important decisions, including those about what topic to investigate, what is the specific question that one wishes to answer, and is the question a good one? Finally, it must be decided exactly how to do the research.

3.2 : Rationale of Research Problem :

Each and every research process starts with a problem which is the basic element of research and which helps to transform an idea into concrete research operations. A problem is an intellectual stimulus calling for an answer in the form of scientific inquiry. It is a question about relations among variables. Research problem can be derived with the help of relationship between different variables. The great source of problem is the professional literature. A critical review of the professional literature would familiarize the researcher with the state of knowledge, with the problems that others studied, with concepts, theories, and major variables, conceptual and operational definitions and with the research methods used.

Extensive research has been conducted in psychology and social science to understand the subjective measures of well being in the present day world. Hence in the present context where the women are handling dual responsibilities and moving forward in every field it is a dire
necessity to find and evaluate the important aspect of their personality and their social well being. The basic requisites like emotional intelligence and locus of control contribute a lot to the making or marring of a women’s or girl’s personality and her multifaceted role. Another important factor today is that hardly anyone bothers to assess the level of life satisfaction among girls.

Thus the rationale of the problem is to evaluate the emotional intelligence and locus of control and life satisfaction among girl students, as this is of great importance and will help them to resolve their role conflicts and overcome the social or familial problems they face. At the same time while assessing the level of life satisfaction among girls, we many throw open a few stark truths to the world, but nevertheless it shall help the girls directly or indirectly to perceive their roles in the present day society. A girl’s personality revolves around her perception of the world and most importantly her perception about her own self. Education is expected to bring in all round personality development in girls, which develops in her a new vision and world view, helping her to be better adjusted to her needs as well as the needs of her family and the community. This study aims at finding out the image of the girl in the mind of others as well as in her own mind. In the recent times there has been a change in attitude of girls in regard to the perception of their own status of the family. Such a positive perception is the outcome of the confidence shown by girls towards their own achievements and usefulness in their family setup.

In view of the above it is therefore important that a comprehensive research be conducted on the various personality aspects of girls as projected in their expressions and attitudes towards life. This research is
also important because in a modernizing society girls are counted upon to partake in the development programmes at all levels. In the present research work an attempt has been made to investigate to what extent various demographic factors like parental education, marital status of parents and religion effect the personality traits like emotional intelligence, locus of control and life satisfaction of the girls pursuing education.

In the present investigation, the following problem is selected.

“A study of Emotional Intelligence, Locus of Control and Life Satisfaction among girl students of Aurangabad.”

3.3 Research Objectives

1. To compare the emotional Intelligence, locus of control and life satisfactions of girls with respect to parental education.
2. To compare the emotional intelligence, locus of control and life satisfactions of girls with respect to religion.
3. To compare the emotional intelligence, locus of control and life satisfactions of girls with respect to marital status of parents.
4. To compare the emotional intelligence, locus of control and life satisfactions of girls with respect to parental education & marital status of parents.
5. To compare the emotional intelligence, locus of control and life satisfactions of girls with respect to parental education & religion.
6. To compare the emotional intelligence, locus of control and life satisfactions of girls with respect to religion and marital status of parents.
7. To compare the emotional intelligence, locus of control and life satisfaction of girls with respect to parental education, marital status parents and religion.

8. To find the correlation between the emotional Intelligence and locus of control among girls.

9. To find the correlation between the locus of control and life satisfaction among girls.

10. To find the correlation between the emotional Intelligence and life satisfaction among girls.

3.4 Research Hypotheses

1 There would be significant difference between girls students of higher educated parents and girls students of high School educated parents on emotional intelligence, life satisfaction and locus of control.

2 There would be significant difference between Hindu and Muslim girls students on emotional intelligence, life satisfaction and locus of control.

3 There would be significant difference between girls students of parents living together and girls students of separated parents on emotional intelligence, life satisfaction and locus of control.

4 There would be significant difference between girls students of high school educated parents living together and girls students of high school educated separated parents on emotional intelligence, life satisfaction and locus of control.

5 There would be significant difference between girls students of higher educated parents living together and girls students of higher educated
separated parents on emotional intelligence, life satisfaction and locus of control.

6 There would be significant difference between Hindu and Muslim girls students of high school educated parents on emotional intelligence, life satisfaction and locus of control.

7 There would be significant difference between Hindu and Muslim girls students of higher educated parents on emotional intelligence, life satisfaction and locus of control.

8 There would be significant difference between Hindu and Muslim girls students of parents living together on emotional intelligence, life satisfaction and locus of control.

9 There would be significant difference between Hindu and Muslim girls students of separated parents on emotional intelligence, life satisfaction and locus of control.

10 There would be significant difference between Hindu and Muslim girls students of high school educated parents living together on emotional intelligence, life satisfaction and locus of control.

11 There would be significant difference between Hindu and Muslim girls students of high school educated and separated parents on emotional intelligence, life satisfaction and locus of control.

12 There would be significant difference between Hindu and Muslim girls students of higher educated parents living together on emotional intelligence, life satisfaction and locus of control.
13 There would be significant difference between Hindu and Muslim girls students of higher educated parents and separated parents on emotional intelligence, life satisfaction and locus of control.

14 There would be positive correlation between emotional intelligence and locus of control among girls students.

15 There would be a positive correlation between locus of control and life satisfaction among girls students.

16 There would be a positive correlation between life satisfaction and emotional intelligence among girls students.

### 3.5 Sample:-

The present study was confined to the college going girl students of Aurangabad division of Maharashtra state in India. Since the population under study was of a very large size, it was proposed to select a small representative sample form the population. The sample comprised of 400 girls students based on the typical native and characteristics of the population. The geographical coverage of the study was Aurangabad Division comprising of the following districts.

i) Aurangabad  ii) Jalna  iii) Beed  iv) Parbhani  

v) Hingoli  vi) Nanded vii) Osmanabad  viii) Latur

The data was collected through random stratified sampling technique from all the above eight districts. The purpose of selecting Aurangabad division including the above eight districts was that the researcher had a good rapport with all the educational institutions of these areas. On account of this rapport it was expected that the respondents will give accurate and authentic information in response to the tests administered
on them. And as a consequence of this there will be a high degree of quality and reliability in the primary data that is collected for the purpose of study.

The respondents included in the present study are of the age group ranging from 16 years to 24 years pursuing education between high secondary level to graduation or post graduation or Professional Courses. Before ultimately selecting the sample care was taken to see that the sample adequately represents the age group and economic status also. So girls selected were not only from different districts of Aurangabad division but were also from all levels of age from 16 years to 24 years and different economic strata. In short the statistical design and sampling strategy adopted for the present study was such that the selected sample will truly represent the universe i.e. population under study so that the results and conclusions drawn on the basis of this sample study will be generally applicable to the entire population.

The population under study was divided broadly into two strata based on their parental educational background, namely girls whose parents are high school educated and girls whose parents are graduates or have obtained higher education. Under the above two categories, further stratification was done on the basis of religion i.e. Hindu and Muslim and Marital Status of the parents i.e. whether the parents were living together or separated or divorced or widowed.

The total sample consisted of 400 girl students selected randomly from all eight districts of Aurangabad division. Out of these 200 girls belonged to parents who were high school educated and 200 girls belonged to parents who was either graduates or had higher educational qualifications.
The 200 girl students of high school educated parents comprised of 100 Muslims (of which 50 girls belonged to parents living together and 50 girls to separated parents) and 100 Hindus (of which 50 girls belonged to parents living together and 50 girls to separated parents) and the 200 girls of higher educated parents comprised of 100 Muslims (of which 50 girls belonged to parents living together and 50 girls to separated parents) and 100 Hindus (of which 50 girls belonged to parents living together and 50 girls to separated parents).

A total of about 500 girl students were selected from the universal population of all girl students who are pursuing education either at Higher Secondary level or at undergraduate or Post graduate level or in professional colleges. From the above population an effective sample of 400 girls was selected for the purpose of study. The detailed distribution of sample is shown as under

**Table No. 3.1- Distribution of Sample**

<table>
<thead>
<tr>
<th>C-Religion</th>
<th>A- Parental Education Level</th>
<th>A2- Higher Educational Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A1- High School Education</td>
<td>B-Marital Status of Parents</td>
</tr>
<tr>
<td></td>
<td>B-Marital Status of Parents</td>
<td>B1-Living Together</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B2- Separated</td>
</tr>
<tr>
<td>C1-Hindu</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>C2-Muslim</td>
<td>50</td>
<td>50</td>
</tr>
</tbody>
</table>
3.6 Variables:

The independent variables under study were as follows:

I Parental Educational Level - A

A1 – High School Educated

A2 – Higher Educated

II Marital Status of Parents - B

B1 – Living Together

B2 – Separated or Divorced or Widowed

III Religion – C

C1 – Hindu

C2 – Muslim

The dependent variables under study were:

I Emotional Intelligence

II Locus of Control

III Life Satisfaction
3.7 Research Design:-

The three independent variables understudy were parental education, marital status of parents and religion. And the three dependent variables under study include emotional intelligence, locus of control and life satisfaction. Hence the research design selected for the purpose of study was a 2x2x2 factorial design. The details of the same are as follows.

Table 3.2 - Table showing 2x2x2 Factorial Design

<table>
<thead>
<tr>
<th>C-Religion</th>
<th>A – Parental Education</th>
<th>B- Marital Status</th>
<th>B- Marital Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A1</td>
<td>A2</td>
<td>B1</td>
</tr>
<tr>
<td></td>
<td>B1</td>
<td>B2</td>
<td>B1</td>
</tr>
<tr>
<td>C1</td>
<td>A1B1C1</td>
<td>A1B2C1</td>
<td>A2B1C1</td>
</tr>
</tbody>
</table>

3.8 Operational Definitions:-

1) Parental Education:-

Parental Education refers to the educational level or educational qualifications of the parents of the sample understudy i.e. either high school educated or graduates, post-graduates or professionals etc.
2) **Parental Marital Status:-**

   Marital status of the parents of the sample under study indicates whether the parents are living together or separated or divorced or widowed.

3) **Girl students:-**

   The girl students in this study imply all those girls who are pursuing education either at the higher secondary level, the under graduate level or Post graduate level or in professional courses.

4) **Emotional Intelligence:-**

   Emotional Intelligence is attributed to the score obtained on the emotional intelligence scale which measures 10 factors.

5) **Locus of control:-**

   Locus of control is described by the score obtained on the I-E scale which denotes the level of externalism and internalism of an individual.

6) **Life Satisfaction:-**

   Life Satisfaction in the present study is indicated by the score obtained on the life satisfaction scale which covers six areas of satisfaction factors.

7) **Religion:-**

   Religion in the present study implies the two girls belonging to Hindu religion and Muslim religion.
3.9 Research Tools

The tools used for the purpose of collecting data were as follows:

3.9.1. The Emotional Intelligence Scale:

The emotional intelligence scale is a standardized tools developed by Anukool Hyde, Sanjyot Pethe and Upinder Dhar and Published by Vedant Publications, Lucknow. The test measures the following 10 factors of Emotional Intelligence.

A – Self Awareness  F - Integrity
B – Empathy  G - Self Development
C - Self motivation  H - Value Orientation
D - Emotional Stability  I - Commitment
E - Managing Relations  J - Altruistic Behavior

It is a scale based on likert type technique wherein there are a total of 34 items which corresponds to the above ten areas.

Administration of the Scale:

The scale was administered individually. The instructions printed on the response sheet are sufficient to take care of the questions that are asked. No time limit was given for completing the questionnaire the scale. However most respondents could complete it in about 10 minutes. Before administering the scale, it was emphasized orally that responses should be recorded as quickly as possible and sincere cooperation was sought from the respondents for the same. The respondents were also
assured that their responses would be kept confidential. It was also emphasized that there is no right or wrong answer to the statements. The statement are designed to understand the difference in individual reactions to various situations and that the scale is meant to know the difference between individuals and not meant to rank them as good or bad.

However it was duly emphasized that all statements have to be responded to and that no statement should be left unanswered. Though the scale is self administering but it was useful to carefully readout the instructions printed on the response sheet to the subjects.

**Scoring :**

There is no scoring key provided for the scale, but however manual scoring was done conveniently. The respondent is provided with five alternatives to give their response ranging from strongly agree to strongly disagree.

The Scoring system is such that for the first alternative of Strongly Agree the score is 5, for second Agree it is 4, for their alternative neutral the score is 3, for fourth Disagree the score 2 and for fifth alternative Strongly Disagree the score is 1. The summated score of all the thirty four items provides the total raw score for emotional intelligence.

**Interpretation :**

The interpretation of the test score was done as per the norms specified in the manual. Norms of the scale are available on a sample of 200 subjects. These norms can be regarded as reference points for
interpreting the Emotional Intelligence Scores. Individuals with as high score of 85 and above can be considered to have high level of Emotional Intelligence while those was the range of 52 to 84 can be considered to have normal range emotional intelligence whereas those with a low score of 51 and below can be considered to have low level of emotional intelligence. Further the factor wise interpretation of raw scores for the ten different factors of emotional intelligence was done as per the norms given in the table 8 of the manual.

Reliability and validity of the scale

The split –half reliability coefficient was found to be 0.88 and the validity of the scale is 0.93

3.9.2 The Rotter’s Locus of Control Scale:

To assess the locus of control, ‘Rotter’s Locus of Control Scale” developed by Dr. Anand Kumar and Dr. S.N. Srivastava Dept. of Psychology. Kashi Vidyapith University, Varanasi was used. The scale measures internal as well as external Locus of Control which might effect behavior. Internal control refers to the individuals who believe that reinforcements are contingent upon their own behavior, capacities or attributes.

Locus of control scale provides a useful means for measuring individual difference in the extent to which enforcements is viewed as a consequence of ones own behavior or of such forces as ‘Chance’, ‘fate’ or powerful others. Since its introduction, the concept of internal - external control has proved to be useful personality dimension for
understanding the role of reinforcement in a wide variety of behavior situations.

**Administration:**

Rotter’s Locus of Control Scale is a self-administering test and can be administered individually or in groups. The instructions given on the test form are sufficient to take care of the statements that are given. Individual and oral administration, however, are effective for non-readers, for visually impaired, and for other handicapped clients who cannot respond to stimulus items without help. They should have the items read aloud to them individually, and the examiner should record responses in the appropriate manner.

Written or oral administration of the Rotter’s Locus of Control Scale generally takes from 20 to 30 minutes. However no time limit was given for the test. When subjects were working independently they were instructed to read and follow directions printed on the form.

**Scoring and interpretation**

This scale is forced choice instrument, which consists of 29 pairs of statements, 23 of which are scored. There are 6 filler items (items No.1, 8, 14, 24, 27) which are not scored.

High score indicates external locus of control on internal-external dimension of the scale. In scoring, only external alternatives are endorsed. The maximum possible score on Rotter’s Locus of Control Scale is 23 and minimum being 0.
Reliability:

Test retest and split half dependability co-efficient of Hindi Version of Rotters Locus of Control Scale is 0.88 and 0.85.

Validity:

Rotter (1966) reported good discriminate validity for the scale indicated by low correlations with such variables as intelligence social desirability and political affiliation.

3.9.3. Life Satisfaction:

To assess the level of life satisfaction among the girl students, “The Life Satisfaction Scale” developed by Dr. Q.G. Alam and Ramji Shrivastava and published by National Psychological Corporation, Agra was used. This scale is basically a diagnostic device used by psychologist, sociologist, health workers and other behavioral or social scientists.

The life satisfactions scale comprises of sixty items related to six areas of life namely Health, Personal, Economic, Mental, Social and Job. The responses are to be gives in yes or no. The yes responses indicates satisfaction, whereas no indicates dissatisfaction. There is no time limit yet it takes about 20 minutes to complete the test. It is a paper pencil questionnaire which can be administered on an individual or groups of individuals.

Reliability:

The test-retest reliability was computed to be 0.84
Validity:

The validity of the scale was obtained by correlating it with Saxena’s Adjustment Inventory and Srivastava Adjustment Inventory. The validity obtained with Saxena’s inventory is 0.74 and that with Srivastava inventory is 0.84 respectively. The scale also has face validity as all the items are closely related to the covered areas. It also possesses content validity.

Interpretation:

The raw score obtained after administering the test were converted into their corresponding T-Scores using the table given in the manual. Further if the corresponding T-Scores were obtained in the range of 56.15-723.93 then the level of satisfaction was interpreted as high, while the T-Scores in the range of 39.37-55.03 were interpreted as average level of satisfaction, and T-Scores in the range of 22.59-38.29 were considered as low level of satisfaction.

3.10 : Research Procedure:

After determining sampling technique, the principals and lecturers of the various colleges were contacted and explained the purpose of data collection. Data schedule was prepared with their consent. Every student was asked to fill in the student’s information sheet on the first page of each test which included the full name, gender, age, class, parents occupation, caste, monthly income of parents and name of the college etc. Adequate care was taken to confirm that the students had filled in all the items of student’s information correctly.
Collection of the data was done from all the eight districts of Aurangabad division. A dry run or pilot study was initially conducted so that in order to ensure good acquaintance with the test. All the colleges from every area were approached and tests were administered to all the girl students in the age group of 16 to 24 years. Initially a rapport was established with the respondents during time when their personal information was collected. Subsequent to this all the three tests of Emotional Intelligence, Locus of Control and Life Satisfaction were administered individually or sometimes in a group, as and when the situation demanded. The instructions of all the tests were explained minutely and comprehensively to the respondents, before they were asked to give their responses on the test booklet. The gap between administering each of the three tests was about 30 minutes so as to allow the respondents to be mentally relaxed and free from any kind of mental interferences.

In each situation students were asked to read the instructions printed on the cover page of each test. When the students understood the instructions, they are asked to record their responses on the place provided in the test. The test booklets were collected from the students, when they finished their work. Adequate care was taken to ensure that they had answered all the items of the test. Proper precautions were taken to maintain the standard psychological testing situation at the time of data collection.

3.11: Statistical analysis:

Statistical tools used in research fall under two categories descriptive statistics and inferential statistics. Initially the data of each
group was scrutinized by applying descriptive statistics. The arithmetic mean and standard deviation for all the three variables were computed and tabulated.

Further the significance of difference between means was obtained by applying the analysis of variance (ANOVA) and computing the F-value. Since the proposed statistical design consisted of 2x2x2 factorial design, the technique of analysis of variance using 2x2x2 factional design with parental education, marital status and religion as independent variables and Emotional Intelligence and Locus of Control and Life Satisfaction as dependent variables was applied. Through this analysis the interaction affect of all the three independent variables was also studied.