CHAPTER – III

METHODOLOGY

Methodology chapter is devoted to the details of the methodological aspects required for the present research:

1. Statement of the problem
2. Objectives
3. Hypotheses
4. Operational definitions of variables
5. Sampling
6. Tools
7. Statistical analysis and tabulation of data
CHAPTER – III

METHODOLOGY

1. **Statement of the Problem:**

A comparative study of attainment of social maturity of urban and rural children in relation to mother’s anxiety and her occupational status.

2. **Objectives:**

The present study aims at comparing the attainment of social maturity of urban and rural children in relation to mother’s anxiety and her occupational status. Specific objectives are as under:

1. To study the effect of working status of mothers in the attainment of social maturity of their children.

2. To study the effect of urban and rural residential areas as vital environmental factors in the attainment of social maturity of children.

3. To study the anxiety levels of mothers and its influence on the attainment of social maturity of their children.
4. To study social maturity of children as affected by their sex and age.

5. To study the interactive effects of working status of mothers, their residential areas on the one hand and sex as well as age of children on the other on the attainment of social maturity by children.

6. To evaluate some of the so called beliefs prevailing in our society:
   i. the employment of mothers has negative effects on the development of child’s maturity.
   ii. working mothers have higher anxiety level than non-working mothers.
   iii. urban environment is more conducive to the development of social competence than rural environment.

3. **Hypothesis** :

   On the basis of general observation the following hypotheses has been formulated for empirical verification:

   1.1. A Social maturity of children of working and non-working mothers is not expected to show significant variation.
1.1.B The anxiety levels of working mothers are not expected to show any significant variation in social maturity of their children.

1.1.C The anxiety levels of non-working mothers are not expected to show any significant variation in SQ scores of their children.

1.1.D Social maturity of rural and urban children is not expected to show significant variation.

1.1.E Social maturity of children of rural working and urban working mothers is not expected to show significant variation.

1.1.F Social maturity of children of rural non-working and urban non-working mothers is not expected to show any significant variation.

1.1.G Male and female children will not differ significantly from one another in respect of social maturity.

1.2.A Working mothers are not expected to differ significantly from non-working mothers in respect of anxiety level.

1.2.B No significant variation in anxiety scores is expected between rural and urban mothers.

1.2.C No significant variation in anxiety score is expected between rural working and urban working mothers.
1.2.D No significant variation in anxiety score is expected between rural non-working and urban non-working mothers.

1.2.E No significant variation in anxiety is expected between male and female children.

1.2.F No significant variation in anxiety is expected between mother of a child below 5 years and mothers of a child above 5 years.

2.1.A The main as well as interaction effect of status of working mothers and their anxiety levels will not show any differential impact on social maturity (SQ).

2.1.B The main as well as interaction effect of status of working mothers and their residential area will not show any differential impact on SQ.

2.1.C The main as well as interaction effect of status of working mothers and sex of the responding child will not show any differential impact on SQ.

2.1.D The main as well as interaction effect of status of working mothers and age of a child will not show any differential impact on SQ.
2.2. A The main as well as interaction effect of status of working mothers and their place of residence will not show any differential impact on their anxiety level.

2.2. B The main as well as interaction effect of status of working mothers and sex of a child will not show any differential impact on anxiety level.

2.2. C The main as well as interaction effect of status of working mothers and age of a child will not show any differential impact on anxiety level.

3.1. A The pattern of frequency distribution according to SQ levels of children of working mothers is not expected to vary significantly from similar pattern in case of non-working mothers.

3.1. B The distribution according to SQ levels is not expected to vary significantly across the three levels of anxiety among working mothers.

3.1. C The distribution according to SQ levels is not expected to vary significantly across the three levels of anxiety among non-working mothers.
3.1.D The pattern of frequency distribution according to SQ levels of children of rural working mothers is not expected to vary significantly from similar pattern in case of urban mothers.

3.1.E The pattern of frequency distribution according to SQ levels of male and female children of working mothers is not expected to vary significantly from similar pattern in case of male and female children of non-working mothers.

3.1.F The pattern of frequency distribution according to SQ levels of upper and lower age group of children of working mothers is not expected to vary significantly from similar pattern in case of upper and lower age group of children of non-working mothers.

4. **Operational Definitions** :

   For the purpose of the study, each variable has operationally been defined within the framework of the Indian environment. The present study may be reviewed and evaluated in the context of the given meaning of each variable.

   - **Social Maturity** :

     According to Devdas (1991) a person is considered mature when his / her responses to a situation are appropriate to his / her development
and adequate to meet the demands of the situation. Meaning thereby social maturity means to meet the behavioral requirements that society has set for an individual for a variety of social situations. Doll (1946) defined it from the angle of a functional ability and Kuppuswamy (1984) viewed it from the social adjustment point of view. Whereas Raval (1970) considered it as an accomplishment of age related tasks.

Somehow, social maturity has been treated in the present study as a sequential series of behavioral accomplishment in the dimensions of dependence to independence, lack of responsibility to a sense of responsibility, incompetence to competence, self-centerism to altruism and from fancy to fact.

In the present study social maturity will be assessed through the standardized scale of social maturity covering following twelve categories:

1. Self Help General
2. Self Help Eating
3. Self Help Dressing
4. Locomotion
5. Occupation
6. Communication

7. Self Direction

8. Socialization

9. Self Awareness and Self Perception

10. Contact with Environment

11. Emotional Expressions


The standardized scale of social maturity is prepared by Raval (1970). The reliability of scale is 96 and validity of scale is established by content validity (behavioral definition of each item) and construct validity (conceptual definition of each item).

- **Working Mothers**:

According to census of India (1981) "Work" is defined as participation in any economically productive activity. Such participation may be physical or mental in nature. Work involves not only actual work but also effective supervision and direction of work.

In the present study working mother is interpreted as those mothers who are full time employed, going out side the home and getting salary.
Non-working Mothers:

In this study a non-working mother means a mother without employment outside the home, are not involved in any occupational work or any social work.

It is important to note that National Sample Survey reported that women play a wide variety of roles which are either preparatory or supportive to home, agriculture, animal keeping, handicraft. But, since wages are not attached to it; it does not satisfy the employment criteria. Therefore, those mothers who are not getting any wages are included under the category of non-working mothers.

In the present study mothers who are doing part-time job, business, free-lancing, honourary social work, are excluded from either of the category. Also the women who do the jobs on daily wages are also excluded from the study.

Urban:

The word "Urban" is interpreted in terms of big city like Ahmedabad, where the maximum facilities, opportunities, services and exposures are available to all.
- **Rural:**

In the present study typical villages having less population were selected for the study. At the same time only those villages were considered in the rural area, where most of the facilities, services, opportunities and exposures are short of.

To avoid any controversy and confusion extreme urban and extreme rural areas have been selected and small cities and towns have been avoided.

- **Anxiety:**

Anxiety, one of the most pervasive psychological phenomena of the modern era refers to a “persistent distressing psychological state arising from an inner conflict” (Ninjhawan, 1972). May (1950) defined anxiety as “the apprehension cued off by a threat to some value which the individual holds essential to his existence as personality.” In the dictionary of Psychology Drever (1959) had defined anxiety as “a chronic complex emotional state with apprehension or dread as its most prominent component, characteristics of various nervous and mental disorders.” However, such definitions make anxiety as morbid state of an individual.

About eight decades ago Freud pointed out anxiety to be as one of the main causes of emotional and behavioural disorders. Further
development of Psychoanalysis has strengthened his proposition. Contemporary dynamic psychological theories treat anxiety as a drive and a general trait of personality. Mowrer (1950) regarded anxiety as a learned response based on conditioning. It is a state of heightened tension with specific expectation of some pain, injury or humiliation to one’s self or another. Anxiety tension, then acts as an important source of drive and reduction of it is reinforcing. Any problem situation may cause anxiety in the individual and he may be driven towards reducing the anxiety through finding a solution to the problem. Thus, anxiety is regarded as a trait of personality but it is not a unidimensional trait residing within the individual. Rather it is a complex behavioural event that is influenced by situational factors and response mode and their interaction. Edler et.al. (1962), Haywood and Dobbs (1964) have confirmed the multi-dimensionality of anxiety.

In the present study anxiety is interpreted as a feeling of discomfort expressed through psychological, physiological and psychosomatic function. Anxiety scores have been obtained with the help of Gujarati version of Sinha’s anxiety scale which covers all the three types of manifestations. It is self administrative scale having 100 items. Each item with the response ‘Yes’ is awarded score of one. The score of every mother would be total number of ‘Yes’ responses. Manifested anxiety is
measured on the bases of score obtained, has been divided into three categories i.e. low, moderate and high.

- **Attainment**:

  In the present study attainment means a regular, habitual, purposeful and intentional acquisition of the behavioral task.

- **Occupational Status**:

  The working condition or position of the mother is known as Occupational status.

5. **Sampling**:

  The sample has been selected from the rural and urban area of Gujarat state. Ahmedabad was the main source of samples for the urban area whereas rural subjects were selected from the villages of Sabarkantha district.

- **Criteria of Sample Selection**:

  For the present study following criteria were kept in mind while selecting samples.

  - To avoid the errors, samples were picked up from the middle socioeconomic group to maintain the homogeniety
of the samples. Middle Socio Economic Group has been selected as per Desai Scale (1985) and avoided the extremity.

- Equal representation has been given to working and non-working mothers.

- Equal representation has been given to rural and urban mothers.

- Only those working mothers had been selected who had full time paid jobs outside the home.

- Selected those mothers who had a child upto 10 years of age.

- Mothers of those families were selected where both the husband and wife were staying together, in the same house. The single parent family was avoided for the present study.

- To avoid the ambiguity of the work status only housewives were selected as unemployed mothers.

- **Sample Size:**

  The total sample of the present study composed of 220 mothers out of them 110 working and 110 non-working mothers. The sample of
working and non-working mothers were further divided into two categories, that were rural and urban. Out of 110 subjects 55 were picked up from the rural area and other half from the urban area.

**The Sample Break-up:**

Working for the purpose of study the subjects were broken-up on the basis of occupational status and their residential area. Thus, it could be presented as under:

**Table: 1**

<table>
<thead>
<tr>
<th></th>
<th>Urban Mothers</th>
<th>Rural Mothers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Mothers</td>
<td>55</td>
<td>55</td>
<td>110</td>
</tr>
<tr>
<td>Non-working Mothers</td>
<td>55</td>
<td>55</td>
<td>110</td>
</tr>
<tr>
<td>Total</td>
<td>110</td>
<td>110</td>
<td>220</td>
</tr>
</tbody>
</table>
Research Design:

In the present study the main independent variables are:

(i) Working and non-working status of mothers (W/NW).

(ii) Residential area urban and rural (U/R).

In the present study the main dependent variables are:

(i) Social Maturity of a Child (S.Q.)

(ii) Anxiety of mothers (ANX).

Anxiety is also treated as dependent variable in order to examine influence if any of the status of working, area of residence, sex of children and age of children.

In the present study the auxiliary variables are:

(i) Sex of a child

(ii) Age of a child

For the present study anxiety has been treated at three levels:

1. High anxiety (ANX 1)

2. Moderate anxiety (ANX 2)
3. Low Anxiety (ANX 3)

Social Maturity has been treated at three levels:

1. High SQ (SQ 1)
2. Average SQ (SQ 2)
3. Low SQ (SQ 3)

Sex of a child has been treated at two levels:

1. Male (M)
2. Female (F)

Age of child has been treated at two levels:

1. Below 5 years (CB 5) – Formative age
2. Above 5 years (CA 5) – Receptive age

6. Tools Used:

For the purpose of data collection the following tools have been used:

1. Information schedule (personal bio-data)
2. Socio-economic Status (Desai, 1985)
3. Gujarati version of Sinha's Anxiety Scale (Raval, 1988)


- **Information Schedule**: 

  In order to collect the requisite personal information about child and mother a schedule has been prepared by the investigator. The necessary information about them were collected such as name, address, income, occupational status, place of residence, age of child, sex of child etc. (Appendix – I).

- **Desai’s SES Scale**: 

  The SES rating scale has been developed by Desai (1985). The scale is developed to assess the socio-economic status of rural, urban and rural-urban people.

  The SES rating consists of 6 items related to :-

  - Parents education
  - Caste
  - Occupation
  - Monthly Income
- Type of House

- Possession of Vehicle

After assessing the numerical scoring weights as prescribed for the concerned item, the total score was obtained by simple addition of all the scores. A subject possesses the total score between the range of 11-25 (middle income group) was selected as a sample for the present study. Whereas, subject possessed score below and above this range were discarded as a sample (Appendix – II).

- **Anxiety Scale**: Sinha’s anxiety scale (1968) has been adopted in Gujarati (Raval, 1988) was used to assess the anxiety score of working and non-working mothers. Sinha’s original scale was developed on the college students but during the preparation of Gujarati version the try-out was made on adult population and it was found satisfactory for the adult population. The concurrent validity was established with Neuroticism Scale. The concurrent validity correlation coefficient thus obtained is + 0.78. This shows that the scale has high validity. This scale has 100 items. All in positive form where checking them as ‘Yes’ or ‘True’ was indicative of anxiety.
Questions were designed to elicit self rating on items descriptive of anxiety reactions to the following areas.

1. Health, appearance and injury

2. Area of ambition (success or failure in work, money and occupation)

3. Family anxiety

4. Anxieties regarding friendship and love

5. Social relations and social approval

6. Worries regarding the future

7. Guilt and shame

8. Physical and physiological manifestations

9. Purely psychological manifestations

Anxiety scale was administered to the 220 subjects for tapping the anxiety levels of the subjects. It being a self-administering inventory the questionnaire was given to Ss. They took their own time to answer in either ‘Yes’ or ‘No’. Each item which was answered as ‘Yes’ was marked the
score of one. The total score was obtained by simple addition of all the items checked positively. (Appendix— III).

**Social Maturity Scale:**

The test is intended to measure the social maturity of children under ten years of age. The scale closely follows Doll’s Social Maturity Scale. New items as well as four more categories were developed alongwith, the establishment of age norms for the urban and the rural Gujarati culture. The scale is suitable for the children of either sex and for all the levels of socio-economic status. The scale is applicable to Gujarati and similar Indian culture. Content and construct validity have been established and the reliability of the scale is 0.96.

The test consists of 170 items, which are categorized under 12 categories on the basis of relevant theoretical dimensions. The categories are as under:

1. Self Help General
2. Self Help Eating
3. Self Help Dressing
4. Locomotion
5. Occupation
6. Communication
7. Self Direction
8. Socialization
9. Self Awareness and Self Perception
10. Contact with Environment
11. Emotional Expression
12. Moral and Religious Aspects

The scale gives median age values as a norm and percentile rank to provide the upper lower range to each item for its total maturation range. The scale is a modified combination of a point scale and a year scale; and is arranged as a year scale by arranging the successive items in group according to sequential interval point scores as year equivalents. The numerical progression of the items represent the order of development or maturation in terms of median age. Instead of uniform number of the items in each age level, different number of the items are included. And each item is defined conceptually as well as behaviourally.

In this scale for recording the information a specific system of signs has been developed for the purpose of scoring the data.
obtained from the respondents. There are seven possible interpretations of responses which can be signed as follows:

+  Plus  
+ F  Formally done  
±  Plus – Minus  
+No  No Opportunity  
+NOC  No Occasion  
NI  No information or not sufficient information  
–  Minus  

"+" Plus:

A sign plus is to be given to that item which is fulfilled along with all the details and essential as indicated in the behavioural definitions of that particular item. This achievement should be more or less permanent and habitual rather than temporary and occasional. A plus sign is given only to those items which are performed without artificial or undue incentive or undue pressure from the elders.
A plus sign is given to all the items which are at the lower age than the first five successive plus sign achieved by the subject and also to the items which have been passed after these successive items. Each plus sign is eligible to get one full credit for counting the basal score.

"+F":

This means formally performed. The sign is given to those items which were formally performed by the subject but now they are temporarily discontinued. If this particular performance can be re-established easily when it is needed or as occasion demands it, subject should be signed +F and should be given full credit.

"±":

This is "Plus-minus" sign. The behaviour indicated by this item is performed occasionally and not ordinarily and usually with full success. Such behaviour is performed completely in accordance with the content but it is not still fully established as to its habit. This performance should be given half credit in final summation for total score.
"+NO":

This means "no opportunity". This sign is given in the case when the subject is not provided with any opportunity to perform. Full credit is given in the cases where subject has not previously performed and does not perform now because of environmental restraint or environmental lack of opportunity such as parental solicitude, adult domination, institutional restriction or any other limitation of circumstances. But the subject would presumable perform habitually or would quickly learn to perform if such limitations to the behaviour are removed.

The purpose of this type of scoring is that the subject should not be penalized only because of artificial environmental restrictions.

"+NOC":

This indicates "no occasion". The subject may be considered as having "no occasion" if the particular occasion for performance has not arisen in its life situation. The scoring system is similar to "no opportunity" (+NO). This thin distinction is made for the recording purpose
rather than for the scoring in improving the environmental modification on parents’ treatment with their children.

“NI”:

This sign means “no information”. The items which are beyond the observation and experience of the informant, subject may be treated as “no information”. In the case of contradictory information this sign is applicable.

“—”:

This sign is given to that item which is not at all achieved or performed by the subject which only appears not purposefully but rarely or accidentally and which is performed not willingly or spontaneously but under extreme pressure or unusual incentive. This item should not be given any credit.

Total Score:

Total score is the sum of scores given to each item examined. This can be obtained by adding the total of scattered credit to the basal score. Basal score is the highest of all the continuous plus scores without any break within
the range of plus scores. The addition of total scattered credits to the total continuous credit will give the total score.

This total score is converted to SA (Social Age) by interpolation from the record sheet.

Form SA, Social Quotient (SQ) can be calculated with the help of the following formula.

$$S.Q = \frac{S.A}{C.A} \times 100$$

Finally the SQ scores are considered for measuring social maturity. The higher the SQ the more the maturity.

As such social maturity being a dependent variable the SQ is treated as a score. But, whenever it is analysed in terms of categories it is treated at three levels i.e. SQ1, SQ2 and SQ3. (Appendix – IV).

Procedure:

The study aimed at comparing the children of working and non-working mothers of rural and urban area in relation to mother’s anxiety and attainment of social maturity by their children.
By keeping forth the objectives of the study, data were collected by administering the following tests in the same order.

1. Information schedule.

2. The Socio-economic status scale.

3. Anxiety Scale.

4. Social Maturity Scale.

All the above stated scales were available in Gujarati languages. Information schedule was also prepared in Gujarati.

The order of administering the various tests to the subjects was the same.

The tests were administered individually in their home environment so that the mothers could express themselves at ease. Simultaneously, chances of errors could be minimised.

Before implementing the selected tests, the concerned literature, thesis and manuals were studied by the investigator. The various items of each tests were then
recorded and scored as per the instructions given in the manual in order to minimize the possibility of scoring errors.

The families were approached with the personal reference through friends and colleagues, relatives and community leaders of the concerned community. For the purpose of data collection rapport was established with the subjects -

- By explaining to them the objectives of the study in brief.

- By personal visit to their houses, along with one of their close relatives, who could introduce sample to the investigator.

- By making a little casual conversation before taking interviews.

Since, Anxiety Scale was a self administered scale, it was given to the literate respondents and asked to give their responses to a set of questions by themselves. It enabled them to take full time to consider questions carefully and to
feel more comfortable in expressing their real reactions to questions on personal and sensitive items.

But, wherever respondent was found to be illiterate by the investigator, face to face interviews were conducted. In case, the questions were not understood by the respondents, the interviewer clarified their meanings by the use of probing questions.

7. **Statistical Analysis**:

To verify the stated hypotheses statistical analysis carried out as under:

1. **‘t’ Analysis**:

   ‘t’ test is used to test the significance of differences between means of two groups under consideration.

2. **Analysis of Variance**:

   Analysis of variance is used to analyse the main and interaction effects between variables under study.
3. Chi-Square:

Chi-Square is used to study the difference in distribution of frequencies based on SQ in relation selected variables.

Comparative percentiles were calculated for the SQ scores of children of working and non-working mothers. These percentiles are shown in table below.

**Table – 2**

**Percentile Q1, Q2 and Q3 of SQ scores**

<table>
<thead>
<tr>
<th>Percentile</th>
<th>SQ Scores</th>
<th>Inter-pretation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Children of working Mothers</td>
<td>Children of Non-working Mothers</td>
</tr>
<tr>
<td>90</td>
<td>183</td>
<td>173</td>
</tr>
<tr>
<td>80</td>
<td>164</td>
<td>162</td>
</tr>
<tr>
<td>75</td>
<td>158</td>
<td>157</td>
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<tr>
<td>70</td>
<td>153</td>
<td>151</td>
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<td>60</td>
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<td>50</td>
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<td>111</td>
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<td>25</td>
<td>112</td>
<td>107</td>
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<tr>
<td>20</td>
<td>109</td>
<td>104</td>
</tr>
<tr>
<td>10</td>
<td>102</td>
<td>96</td>
</tr>
</tbody>
</table>
According to table 75 percentile and above that is in terms of scores 158 and 157 were marked as high SQ. Similarly the score range of 115-153 in case of working mothers and from 111-151 for non-working mothers. The corresponding percentile range from 30-70. This was marked as ‘average SQ’. And the scores below 112 and 107 were consider for ‘low SQ’.

Similarly comparative percentiles were calculated for the overall anxiety scores of working and non-working mothers. These percentiles are shown in table below.

**Table – 3**

**Percentile Q1, Q2 and Q3 of Anxiety Scores**

<table>
<thead>
<tr>
<th>Percentile</th>
<th>Anxiety Scores</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Working Mothers</td>
<td>Non-working Mothers</td>
</tr>
<tr>
<td>90</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td>80</td>
<td>37</td>
<td>37</td>
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<td>8</td>
<td>10</td>
</tr>
<tr>
<td>10</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
According to table 75 percentile and above that is in terms of scores 34 and 33 were marked as 'high anxiety'. Similarly the scores range from 12 to 31 in case of working and from 14 to 30 for non-working mothers. The corresponding percentile range from 30 to 70 was marked as 'moderate anxiety'. The scores below 10 and 13 were considered for 'low anxiety'.

Considering the anxiety scores of working as well as non-working mothers and their corresponding percentiles, it is observed the percentiles for the high, moderate, and low levels of anxiety are quite comparable for working and non-working mothers.

Bar graphs have been plotted to present the data for visual clarity and comparison about the frequency of respondents actually obtained during sampling.
Fig. 1
FREQUENCIES FALLING INTO EACH SQ LEVEL

SQ1-High Social Maturity
SQ2-Average Social Maturity
SQ3-Low Social Maturity
Fig. 2
FREQUENCIES FALLING INTO EACH ANXIETY LEVEL

ANX1- High Anxiety
ANX2- Moderate Anxiety
ANX3- Low Anxiety
Fig. 3
FREQUENCIES OF
SEX OF A CHILD

- RW - Male Child
- RNW - Male Child
- UW - Male Child
- UNW - Male Child

M - Male Child
F - Female Child
Fig. 4
FREQUENCIES OF AGE OF A CHILD

RW RNW UW UNW

CAB - Child Below 5 Years
CAA - Child Above 5 Years

CAB - Child Below 5 Years
CAA - Child Above 5 Years