CHAPTER III
METHODOLOGY

3.1 Statement of the Problem

“A Psychological Investigation of Influence of Language on Academic Anxiety, self concept and Adjustment Process among Rural and Urban Students.”

3.2 Objectives

a) To study the level of academic anxiety among students belongs to rural and urban area.

b) To study the level of academic anxiety among English and Marathi medium students.

c) To study the level of academic anxiety among students in relation to their gender.

d) To study the level of adjustment among students belongs to rural and urban area.

e) To study the level of adjustment among English and Marathi medium students.

f) To study the level of adjustment among students in relation to their gender.

g) To study the self-concept among students belongs to rural and urban area.
h) To study the self-concept among English and Marathi medium students.

i) To study the self-concept among students in relation to their gender.

### 3.3 Hypotheses

For the present research process, the following hypotheses are formulated:

a) Academic anxiety would be significantly similar among both the groups i.e. rural and urban school students.

b) There would be no significant effect of medium on students’ level of academic anxiety.

c) Male and female would not be significantly differ on their level of academic anxiety.

d) There would be no following interaction effect of independent variables on students level of academic anxiety;

  ✓ Inhabitance * Medium
  ✓ Inhabitance * Gender
  ✓ Medium * Gender
  ✓ Inhabitance * Medium * Gender

e) Inhabitance has no significant effect on children’s level of adjustment i.e.

  ✓ Emotional
  ✓ Social
f) There would be no significant effect of medium on students’ level of adjustment i.e.-
   ✓ Emotional
   ✓ Social
   ✓ Educational

g) There would be no significant effect of gender on students’ level of adjustment i.e.-
   ✓ Emotional
   ✓ Social
   ✓ Educational

h) There would be no following interactional effect of independent variables (Inhabitance, medium and gender) on childrens’ level of adjustment i.e. Emotional and Social and educational.
   ✓ Inhabitance * Medium
   ✓ Inhabitance * Gender
   ✓ Medium * Gender
   ✓ Inhabitance * Medium * Gender

i) Rural and urban school students would be parallel on their-
   ✓ Total self-concept
   ✓ Physical Self-concept
   ✓ Social Self-concept
   ✓ Temperamental Self-concept
   ✓ Educational Self-concept
   ✓ Moral Self-concept
j) There would be no significant effect of medium on students’

- Total self-concept
- Physical Self-concept
- Social Self-concept
- Temperamental Self-concept
- Educational Self-concept
- Moral Self-concept
- Intellectual Self-concept.

k) There would be no significant effect of gender on students’

- Total self-concept
- Physical Self-concept
- Social Self-concept
- Temperamental Self-concept
- Educational Self-concept
- Moral Self-concept
- Intellectual Self-concept.

l) There would be no following interaction effect of independent variables on students level of self-concept;

- Inhabitance * Medium
- Inhabitance * Gender
- Medium * Gender
- Inhabitance * Medium * Gender

The rational for the above hypotheses is that those who are not having their education in mother-tongue will presume some
impending danger from the academic situation including teacher and subject contents. Similarly, those students who are of English medium either in rural or urban area will be more submissive and having lesser scale of coping behaviour. They cannot able to express their problems more openly and confidently.

3.4 Conceptual Clarification of the Dependent Variables

1) Academic Anxiety: Academic anxiety is the kind of state anxiety which relates to the impending danger from the environment of the academic institution including teacher, certain subjects like Mathematics etc.

2) Adjustment: Establishment of a harmonious relationship with the physical and social environment.

3) Self Concept: an organized configuration of perceptions of the self which are admissible of awareness. It is composed of such elements as the perceptions of one’s characteristics and abilities; the perception and concept of the self in relation to others and to the environment; the value qualities which are perceived as associated with experiences and objects; and goals and ideals which are perceived as having positive or negative valence.”
3.5 Method and Procedure

3.5.1. Sample

In the present research with the help of randomized sampling techniques 400 students were be selected from different schools of urban and rural areas of Marathwada region. Out of these 400 students, 200 were be selected from urban area and 200 were be from rural areas in which 200 of rural and urban students were be further divided in to two category i.e. student from English medium (n =100) and the other group were be of Marathi medium (Mother-tongue) students (n =100 ). The detail of the sample is given in the table.

<table>
<thead>
<tr>
<th>Categories</th>
<th>Number</th>
<th>Age</th>
<th>Socio-Economics Status (Total Family) Income</th>
<th>Class</th>
<th>School Set up</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Medium</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male(50) &amp; Female(50)</td>
<td>100</td>
<td>12-14</td>
<td>Above Rs.10,000 p.m.</td>
<td>7th &amp; 8th Standard</td>
<td>Urban</td>
</tr>
<tr>
<td>Marathi Medium</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male(50) &amp; Female(50)</td>
<td>100</td>
<td>12-14</td>
<td>Above Rs.10,000 p.m.</td>
<td>7th &amp; 8th Standard</td>
<td>Urban</td>
</tr>
<tr>
<td>English Medium</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Male(50) &amp; Female(50)</td>
<td>100</td>
<td>12-14</td>
<td>Above Rs.10,000 p.m.</td>
<td>7th &amp; 8th Standard</td>
<td>Rural</td>
</tr>
<tr>
<td>Marathi Medium</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male(50) &amp; Female(50)</td>
<td>100</td>
<td>12-14</td>
<td>Above Rs.10,000 p.m.</td>
<td>7th &amp; 8th Standard</td>
<td>Rural</td>
</tr>
</tbody>
</table>
Table 3.2

Sample Distribution

<table>
<thead>
<tr>
<th></th>
<th>Urban</th>
<th>Rural</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>Marathi Medium</td>
<td>N=50</td>
<td>N=50</td>
<td>N=50</td>
</tr>
<tr>
<td>English Medium</td>
<td>N=50</td>
<td>N=50</td>
<td>N=50</td>
</tr>
<tr>
<td>Total</td>
<td>N=100</td>
<td>N=100</td>
<td>N=100</td>
</tr>
</tbody>
</table>

3.5.2 Variables

Independent Variables

A) Inhabitance or Area;
   A1) Urban
   A2) Rural

B) Medium;
   B1) English
   B2) Marathi

C) Gender;
   C1) Male
   C2) Female

Dependent Variables

1. Academic Anxiety
2. Adjustment
3. Self-concept
3.5.3 Research Design

In the present study a balanced 2 X 2 X 2 factorial design were used as shown in below table;

**Table 3.3**

<table>
<thead>
<tr>
<th>2 X 2 X 2 Factorial Design</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>C₁</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>A₁B₁C₁</td>
</tr>
<tr>
<td>N=50</td>
</tr>
<tr>
<td>A₂B₁C₁</td>
</tr>
<tr>
<td>N=50</td>
</tr>
<tr>
<td>A₁B₂C₁</td>
</tr>
<tr>
<td>N=50</td>
</tr>
<tr>
<td>A₂B₂C₁</td>
</tr>
<tr>
<td>N=50</td>
</tr>
<tr>
<td>A₁B₁C₂</td>
</tr>
<tr>
<td>N=50</td>
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<tr>
<td>A₂B₁C₂</td>
</tr>
<tr>
<td>N=50</td>
</tr>
<tr>
<td>A₁B₂C₂</td>
</tr>
<tr>
<td>N=50</td>
</tr>
<tr>
<td>A₂B₂C₂</td>
</tr>
<tr>
<td>N=50</td>
</tr>
</tbody>
</table>

Where

A₁B₁C₁-Male students with English medium and belongs to urban area.

A₁B₂C₁- Male students with Marathi medium and belongs to urban area.

A₁B₁C₂- Female students with English medium and belongs to urban area.

A₁B₂C₂- Female students with Marathi medium and belongs to urban area.
A2B1C1-Male students with English medium and belongs to rural area.

A2B2C1- Male students with Marathi medium and belongs to rural area.

A2B1C2- Female students with English medium and belongs to rural area.

A2B2C2- Female students with Marathi medium and belongs to rural area.

### 3.5.4 Research Tools

**Table 3.4**

**List of Tests**

<table>
<thead>
<tr>
<th>Aspect studies</th>
<th>Test and scale</th>
<th>Developed by</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Academic Anxiety</strong></td>
<td>Academic anxiety Scale for Children</td>
<td>Singh and Gupta (1971)</td>
</tr>
<tr>
<td><strong>Adjustment</strong></td>
<td>Adjustment Inventory for School students</td>
<td>Sinha and Singh (1984).</td>
</tr>
</tbody>
</table>
3.5.5 Description of the Test

1. Description of the Academic anxiety Scale for Children:
Academic anxiety is a kind of state anxiety which relates to the impending danger from the environment of the academic institutions including teacher, certain subjects like mathematics, English etc.
The Academic Anxiety Scale for Children (AASC) has been developed for use with school students of class VIII to X (age range 13-16 years) by Singh and Gupta in 1971. This test consists of total 20 items and each item of the test is scored either =1 or 0. There are two type of items-positive and negative. Thus the maximum possible score of this test is 20. High score on the test indicates high academic anxiety and low score on the test indicates low academic anxiety.
The reliability of this test was computed through the two methods that is test-retest and split-half method which was found to be .60 and .65 respectively. The AASC has been validated against the Sinha-anxiety Scale test, Neuroticism scale of MPI and CAAT and validity coefficient was found to be .31, .4 and .57 respectively.

2. Description of the Adjustment Inventory for School students:
The adjustment Inventory for School Students (AISS) has been designed for use with Hindi knowing school students of India. The inventory seeks to segregate well adjusted secondary school students (Age group 14 to 18 years) from poorly adjusted students in three area of adjustment: Emotional, Social and Educational. The inventory consists of total 60 items, 20 items in each area of adjustment. The
questions were to be answered in Yes and No. The each area of this inventory has been described as follows:

Emotional adjustment; High score indicate unstable emotions. Students with low score tend to be emotionally stable.

Social adjustment; High score indicate submissive and retiring. Low score indicate aggressive behavior.

Educational Adjustment; Individuals’ scoring high are poorly adjusted with their curricular and cocurricular programmes. Person with low score are interesting in school programmes.

This test is self-administrative in nature. Though there is no time limit to complete this test but generally 10 to 15 minutes is sufficient for this test. For any answer indicative of adjustment 0 is given otherwise a score of one is awarded. Responses are pre decided and given with manual in key responses.

The reliability of this test has been determined by split half method, test retest method and by K-R formula and correlation coefficient were found to be more than .90 for each area. This test was also found to be satisfactory and higher in their criteria of validity.

3. Description of the self-concept questionnaire:

The Self-Concept Questionnaire by Dr.R.K.Saraswat (1984) was used which provides six dimensions viz. Physical, Social, Intellectual, Moral, Educational, and Temperamental as well as a Total Self-Concept score. It is a 5-Point scale with 48-item questionnaire. Test – Retest reliability of this questionnaire is 0.91. Reliability coefficients of its dimensions vary from 0.67 to 0.80. Responses are obtained on the
test booklet itself. There is no time limit but generally 20 minutes have been found sufficient for responding to all the items. The operational definitions of Self-Concept dimensions measured by this inventory are:

1. **Physical**: Individuals’ view of their body, health, physical appearance and strength.

2. **Social**: Individuals’ sense of worth in social interactions.

3. **Temperamental**: Individuals’ view of their prevailing emotional state or the dominance of particular kind of emotional reactions.

4. **Educational**: Individuals’ view of themselves in relation to schools, teachers and extra-curricular.

5. **Moral**: Individuals’ estimation of their moral worth; right and wrong activities.

6. **Intellectual**: Individuals’ awareness of their intelligence and capacity of problem solving and judgment.

The next table gives the item numbers included in the respective Self-concept dimension

**Table 3.5**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Item Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical (P)</td>
<td>2, 3, 9, 20, 22, 27, 29, 31</td>
</tr>
<tr>
<td>Social (S)</td>
<td>1, 8, 21, 37, 40, 43, 46, 48</td>
</tr>
<tr>
<td>Temperamental (T)</td>
<td>4, 10, 14, 16, 19, 23, 24, 28</td>
</tr>
<tr>
<td>Educational (E)</td>
<td>5, 13, 15, 17, 25, 26, 30, 32</td>
</tr>
<tr>
<td>Moral (M)</td>
<td>6, 34, 35, 41, 42, 44, 45, 47</td>
</tr>
<tr>
<td>Intellectual (I)</td>
<td>7, 11, 12, 18, 33, 36, 38, 39</td>
</tr>
</tbody>
</table>
3.6. Data Collection and procedure

Looking to the objective of the present research with the help of randomized sampling techniques 400 students were selected from different schools of urban and rural areas of Marathwada region. Out of these 400 students, 200 were selected from urban area and 200 were from rural areas in which 200 of rural and urban students were further divided into two category i.e. student from English medium (n =100) and the other group were of Marathi medium (Mother-tongue) students (n =100). Academic anxiety, Adjustment and Self-Concept of each subject was measured by using Academic Anxiety Scale For Children (AASC) by Singh and Gupta (1971), Adjustment Inventory for School Students (AISS) by Sinha and Singh (1984) and Self-Concept Questionnaire by Sararswat R.K. (1984). All the above tests were administered in a group. Obtained data were analyzed by computing F-test (ANOVA) to see the effect of inhabitance, medium and gender on all dependent Variables (academic anxiety, adjustment and self-concept).

3.7. Statistical analysis

The data were analyzed as follows;

The mean (with graphical representation) and standard deviation for inhabitance (Urban & Rural), medium (English & Marathi) and gender (Male & Female) on academic anxiety, Adjustment and on self-concept was analyzed.
Looking to the objectives of the present investigation analysis of collected data was done by employing 2X2X2 way ANOVA in order to study the effect of various independent variables namely inhabitance, medium and gender on academic anxiety, adjustment and self-concept.