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RESEARCH METHODOLOGY

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Chapter-3
Research Methodology

3.1 INTRODUCTION

In present research work researcher has tried to focus on different dimensions of Home Environment, various areas of Adjustment and Academic Achievement of the Higher Secondary School Students with regards to Habitat and Gender of the students. The main Objectives, Hypothesis, Sample, Variables, Tool for Data Collection, Procedure and Statistical Techniques for analysis of data are discussed in this chapter.

3.2 PROBLEM OF THE STUDY

The problem has been selected by keeping in focus the home environment, various areas of adjustment and academic achievement of the students during schooling. The main problem of present study is as under.

"A Comparative Study of Home Environment, Adjustment and Academic Achievement of Higher Secondary Schools Students"

3.3 OBJECTIVES OF THE STUDY

Major objectives of the present research are as under:

1. To study and compare various dimensions of home environment like Control, Protectiveness, Punishment, Conformity, Social Isolation, Reward, Deprivation of Privilege, Nurturance and rejection and permissiveness of urban and rural higher secondary school students.
2. To study and compare various dimensions of home environment like Control, Protectiveness, Punishment, Conformity, Social Isolation, Reward, Deprivation of Privilege, Nurturance and rejection and permissiveness of male and female higher secondary school students.

3. To study interaction effect between habitat and gender with regards to various dimensions of home environment like Control, Protectiveness, Punishment, Conformity, Social Isolation, Reward, Deprivation of Privilege, Nurturance and rejection and permissiveness.

4. To study and compare home adjustment, health adjustment, emotional adjustment, social adjustment and overall adjustment of urban and rural higher secondary school students.

5. To study and compare home adjustment, health adjustment, emotional adjustment, social adjustment and overall adjustment of male and female higher secondary school students.

6. To study interaction effect between habitat and gender with regards to home adjustment, health adjustment, emotional adjustment, social adjustment and overall adjustment.

7. To study and compare academic achievement of urban and rural higher secondary school students.

8. To study and compare academic achievement of male and female higher secondary school students.

9. To study interaction effect between habitat and gender with regards to academic achievement.

3.4 HYPOTHESIS OF THE STUDY:
Major hypotheses of the present research were as under:
1. There will be no significant difference between urban and rural higher secondary schools students with regards to various dimensions of home environment like Control, Protectiveness, Punishment, Conformity, Social Isolation, Reward, Deprivation of Privilege, Nurturance and rejection and permissiveness.

2. There will be no significant difference between male and female higher secondary schools students with regards to various dimensions of home environment like Control, Protectiveness, Punishment, Conformity, Social Isolation, Reward, Deprivation of Privilege, Nurturance and rejection and permissiveness.

3. There will be no significant interaction effect between habitat and gender of higher secondary schools students with regards to various dimensions of home environment like Control, Protectiveness, Punishment, Conformity, Social Isolation, Reward, Deprivation of Privilege, Nurturance and rejection and permissiveness.

4. There will be no significant difference between urban and rural higher secondary schools students with regards to home adjustment, health adjustment, emotional adjustment, social adjustment and total adjustment.

5. There will be no significant difference between male and female higher secondary schools students with regards to home adjustment, health adjustment, emotional adjustment, social adjustment and total adjustment.

6. There will be no significant interaction effect between habitat and gender of higher secondary schools students with regards
to home adjustment, health adjustment, emotional adjustment, social adjustment and total adjustment.

7. There will be no significant difference between urban and rural higher secondary schools students with regards to academic achievement.

8. There will be no significant difference among male and female higher secondary schools students with regards to academic achievement.

9. There will be no significant interaction effect between habitat and gender of higher secondary schools students with regards to academic achievement.

### 3.5 VARIABLES

The nature and levels of variables of the present research work are as under:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Variables</th>
<th>Nature of Variables</th>
<th>Numbers of Level</th>
<th>Name of Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Habitat</td>
<td>Independent Variable</td>
<td>2</td>
<td>• Urban higher secondary school Students</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Rural Higher secondary school students</td>
</tr>
<tr>
<td>2.</td>
<td>Gender</td>
<td>Independent Variable</td>
<td>2</td>
<td>• Male higher secondary school Students</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Female higher secondary school Students</td>
</tr>
<tr>
<td>3.</td>
<td>Home Environment</td>
<td>Dependent Variable</td>
<td>10 Dimensions</td>
<td>Scores of Various Dimension of Home Environment</td>
</tr>
<tr>
<td>4.</td>
<td>Adjustment</td>
<td>Dependents Variables</td>
<td>5 areas</td>
<td>Scores of Various areas of Adjustment</td>
</tr>
<tr>
<td>5.</td>
<td>Academic Achievement</td>
<td>Dependent Variables</td>
<td>1</td>
<td>Average percentage of last three years results of annual examination</td>
</tr>
</tbody>
</table>
3.6 SAMPLE:

For the present research sample was selected randomly from urban and rural higher secondary schools of Ahmedabad, Gandhinagar and Mehsana District. Total sample was categorized as under:

<table>
<thead>
<tr>
<th>Gender</th>
<th>Habitat</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban</td>
<td>Rural</td>
</tr>
<tr>
<td>Male</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>Female</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>Total</td>
<td>500</td>
<td>500</td>
</tr>
</tbody>
</table>

3.7 TOOLS:

3.7.1 Home Environment Inventory by K.S. Mishra

The present home environment inventory is an instrument designed to measure psycho social climate of home as perceived by children. It provides a measure of quality and quantity of the cognitive, emotional and social support that has been available to the child within the home. HEI has 100 items belonging to the ten dimensions of home environment. Operational definitions of these dimensions are as follows.

(A) Control:

It indicates autocratic atmosphere in which many restrictions are imposed on children by the parents in order to discipline them.

(B) Protectiveness:

It implies prevention of independent behavior and prolongation of infantile care.
(C) Punishment:

It includes physical as well as affective punishment to avoid the occurrence of undesirable behavior.

(D) Conformity:

It indicates parents directions and commands or orders with which child is expected to comply by actions. It refers to demands to work according to parents desires and expectations.

(E) Social Isolation:

It indicates the use of isolations from beloved person except family members for negative sanctions.

(F) Reward:

It includes material as well as symbolic rewards to strengthen or increase the probability of desired behavior.

(G) Deprivation of Privilege:

It implies controlling children behavior by depriving them or their rights to seek love, respect and child care from parents.

(H) Nurturance:

It indicates existence of excessive unconditional, physical and emotional attachment of parents with the child. Parents have a keen interest in and love for the child.

(I) Rejection:

It implies conditional love recognizing that the child has no right as a person, no right to express his feeling, no right to uniqueness and no right to become autonomous individual.

(J) Permissiveness:

It includes provision of opportunity to child to express his views freely and act accordingly to his desire with no interference from parents.
• **Description Of The Inventory:**

HEI contained 100 items related to above-mentioned ten dimensions of home environment. The instrument requires students to tell the frequency with which a particular parents-child interactional behavior has been observed by them in their homes. It is 5 point scale from mostly to never.

HEI can use individual or in group setting. Test has 5 cell point marking system for score is allotted by constructor, 4 marks to mostly, 3 marks to often, 2 marks to some times, 1 mark to least and 0 marks to never.

The item wise “t” value is found out from the test constructor.

• **Reliability:**

The home environment inventory’s reliability was found out by split half method, and worked out separately for all the ten dimensions. The split half reliability of various dimensions of HEI are as follows.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Inventory dimension</th>
<th>Reliability co-efficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Control</td>
<td>0.879</td>
</tr>
<tr>
<td>B</td>
<td>Protectiveness</td>
<td>0.748</td>
</tr>
<tr>
<td>C</td>
<td>Punishment</td>
<td>0.947</td>
</tr>
<tr>
<td>D</td>
<td>Conformity</td>
<td>0.866</td>
</tr>
<tr>
<td>E</td>
<td>Social isolation</td>
<td>0.870</td>
</tr>
<tr>
<td>F</td>
<td>Reward</td>
<td>0.875</td>
</tr>
<tr>
<td>G</td>
<td>Deprivation of privileges</td>
<td>0.855</td>
</tr>
<tr>
<td>H</td>
<td>Nurturance</td>
<td>0.901</td>
</tr>
<tr>
<td>I</td>
<td>Rejection</td>
<td>0.841</td>
</tr>
<tr>
<td>J</td>
<td><em>Permissiveness</em></td>
<td>0.726</td>
</tr>
</tbody>
</table>
The inter correlation is also counted by Dr. Karunashankar Mishra in between 10 dimensions.

**Validity of HEI:**

Home environment inventory has been found to possess content validity is measured with the help of views expressed by judges. Criterion related validity could not be established because of the lack of appropriate external criteria.

**Norms:**

HEI has different norms for boys and girls. Scores are counted in percentile.

- If $> P$ 90 Percentile Very high
- If P 75 – 90 Percentile High
- If P 50 – 75 Percentile Slightly above average
- If P 25 – 50 Percentile Average
- If P 10 – 25 Percentile Slightly below average

**3.7.2 ADJUSTMENT INVENTORY :**

In order to measure the adjustment of higher secondary school students, the Adjustment Inventory by R.K. Oza was used. It measures (i) Family (ii) Health (iii) Social (iv) Emotional and (v) Overall adjustment.

- **Reliability and Validity :**

  Reliability of this test has been measured by split half and test-retest method by using spearman and brown formula split half reliability index of family adj. is 0.84, health 0.81, social 0.89 and Emotional adj. is 0.92.
To measure validity the results were correlated with Kumar Adjustment inventory. Validity index of 0.72, health : 0.79, social 0.82 and emotional : 0.81 (all high) were found.

- **Method of scoring:**
  The present inventory is a negative measure. When the respondent says 'Yes', it indicates his adjustment problem, and when say 'No', it indicates absence of adjustment problem, 'Yes' response is scored as 1. No or '?' responses do not get any score. Thus, high total score indicates maladjustment.

### 3.7.3 ACADEMIC ACHIEVEMENT:

Means scores of average percentage of results of last three years annual examination of each student was considered as Academic achievement.

### 8. PROCEDURE:

The main purpose of the present research was to study home environment, adjustment and academic achievement of higher secondary school students. For that, higher secondary schools of urban and rural areas of Mehsana, Gandhinagar and Ahmedabad district were randomly selected. Principals of selected schools were personally contacted. They informed about the purpose of study, their permission for collecting data from students of their school was obtained.

Then 250 boys and 250 girls studying in urban higher secondary school were randomly selected. Similarly, 250 boys and 250 girl students of rural higher secondary schools were randomly selected. A time table was prepared according to the schedule, the
selected students were called in small groups. Rapport was established with them and they were instructed about the tools which were being used. Then step wise randomly selected respondents were given the booklets, and answer sheets. After the data collection, the responses were checked for completeness and scores were assigned according to instructions in the manuals of each test.

9. **STATISTICAL ANALYSIS**:

   Keeping in view the purpose and null hypotheses, in order to know whether habitat and gender of respondents affect the main and interaction effects on various dimensions of home environment, areas of adjustment and academic achievement, 2 x 2 factorial design was used. Two ways analysis of variance was used for statistical analysis.