Chapter - 4

METHOD

In this chapter attempt has been made to discuss the sample, the measures used, the design and the procedure of data collection. In the design section, the type of design and the statistics used to explain the relationship of dependent variable academic achievement with independent variables (classroom environment, locale and sex) has been discussed.

Sample

Initially a larger number of students studying in class X of different state government higher secondary schools of Chhattisgarh state were randomly selected, out of which 947 subjects were retained as final sample. In the present study the sample were selected from two different locales i.e. rural and urban. The age range of the subjects was 15-17 years. Details of the sample are mentioned in Table - 1

Table-1 Details of the sample used in the present study. Figures in each cell indicate the number of subjects used.

<table>
<thead>
<tr>
<th></th>
<th>Rural</th>
<th>Urban</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>266</td>
<td>185</td>
<td>451</td>
</tr>
<tr>
<td>Female</td>
<td>292</td>
<td>204</td>
<td>496</td>
</tr>
<tr>
<td>Total</td>
<td>558</td>
<td>389</td>
<td>947</td>
</tr>
</tbody>
</table>

Measures-

To assess classroom Environment, classroom environment scale CES constructed and standardized by Moos and Trickett (1974), adaptation and standardization to suit the Indian conditions in Hindi Joshi and Vyas (1987) is used. CES scale has four dimensions comprising of nine subscales which reflect a conceptualization of the relationships among them. The four dimensions and the nine sub- dimensions are as follows:
The four Dimensions and the nine sub-dimension are as follows:-

**Table 2**  
**Classroom environment dimension and sub dimension.**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Sub dimensions</th>
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</table>
| 1. Relationship - Measures the extent to which students have attentive interest in class activities and participated in discussion do additional work on their own and enjoy the class is considered. The nature and intensity of personal relationship within the environment and the extent to which people are involved in the environment and support one another. Involvement, affiliation, teacher support | 1. Involvement – measures the extent to which student have attentive interest in the class activities and participate in discussion. the extent to which students do additional work on their own and enjoy the class is considered.  
2. Affiliation assesses the level of friendship student feel for each other i.e., the extent to which they help each other with home work, get to know each other easily and working together.  
3. Teacher Support .measures the amount of help, concern and friendship the teacher directs toward the students. |
| 2. Personal Development The basic direction along which personal growth and self-enhancement tend to occur – Task orientation, Competition - | 4. Task Orientation measure the extent to which it is important to complete the activities that have been planned.  
5. Competition assesses the emphasis placed on student competing with each other for grades recognition. |
<p>| | |</p>
<table>
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</thead>
<tbody>
<tr>
<td>3.</td>
<td>System Maintenance- The extent, to which the environment is orderly, clear in expectation, maintains control and is responsive to change – order and organization, rule clarity, teacher control.</td>
</tr>
<tr>
<td>4.</td>
<td>System Change- System change- dimension include Innovation which measures how much student contributes to planning classroom activities and the amount of unusual and varying activities and assignment planned by the teacher. the extent to which the teacher attempts to use new technique and encourage creative thinking in the students is considered.</td>
</tr>
<tr>
<td>6.</td>
<td>Order and organization assess the emphasis on student s behaving in an orderly and polite manner and on the overall organization of assignment and classroom activity</td>
</tr>
<tr>
<td>7.</td>
<td>Rule Clarity assess the emphasis on establishing and following a clear set of ruler and on student knowing what the extent to which teacher with student who break ruler.</td>
</tr>
<tr>
<td>8.</td>
<td>Teacher control-measure how strict the teacher is in enforcing the ruler and the severity of the punishment for rules infraction.</td>
</tr>
<tr>
<td>9.</td>
<td>Innovation-measure how much student contributes to planning classroom activities and the amount of unusual and varying activities and assignment planned by teacher.</td>
</tr>
</tbody>
</table>

;PClassroom environment scale consist of 78 items which cover the almost all the important constitutes of its main dimension, i. e. Involvement, Affiliation, Teacher
Support, Task Orientation, Competition, Order and Organization, Rule Clarity, Teacher Control and Innovation.

To assess academic achievement of the student, overall marks obtained by the student in different subjects, viz- Hindi, English, Mathematics, Science, and Social Science in class 10th board examination was used.

**Design-**

The present study is a co-relational research employing type-S independent variables. The main objective of the study is to find out the relationship of academic achievement with classroom environment along with its dimensions, locale and sex. The predictors undertaken in the study are perceived classroom environment along with its nine dimensions (i.e. involvement, affiliation, teacher support, task orientation, competition, order and organization, rule clarity, teacher control and innovation), locale and sex. The criterion variable is academic achievement of the student. To fulfill the above mentioned objective Pearson’s product moment coefficient of correlation and multiple regression analysis technique is applied. The variables undertaken in the present study are:

**Criterion variable- Academic Achievement-**

**Predictors –**

A. Classroom environment

B. Locale

C. Sex

A. Classroom Environment-

1. Involvement
2. Affiliation
3. Teacher support
4. Task orientation
5. Competition
6. Order and organization
7. Rule clarity
8. Teacher control
9. Innovation

B. Locale-

a - Urban
b – Rural
C. Sex-

a - Male
b - Female

Procedure-

After explaining the objectives of the research work permission was obtained from the principles of the selected schools. To administer the questionnaires to the students of tenth standard to establish a good rapport with the subject it was assured that their responses and identities would be strictly kept confidential and not disclose any where thus they were made independent to give their answer comfortably and honestly, whatever they felt. In this way subjects were encouraged to give their proper cooperation during the testing.

The classroom environment scale booklets were distributed to the subjects. The printed instructions were explained to the subjects. The subjects were seated in group settings. A response sheet was provided with each booklet for the subjects to mark their responses. The classroom were the test was conducted was well organized and the seating arrangement was also made comfortable. After the completion of test booklets were also collected back. The participant students, principal and the staffs of the school were given thanks for their cooperation.

After having administered the test as per procedure laid down and collection of the answer sheets and booklets is to be completed. The scoring of the data was done as per the norms of scoring. Responses of the respondents in the form of raw scores are given in appendix-B

It must be noted that each item of every scale is on a five point scale of “4 to Zero” There are some negatively framed items for which the scoring is in reverse direction of scoring weightage, i.e. “zero to 4”.

The total score of each sub scale has to be obtained by adding score obtained on each respective items of that scale. Thus, for each sub scale total score is obtained and interpreted.
After scoring, the data was organized and put for the statistical analysis. The data was analyzed with the help of appropriate statistical techniques, in order to verify the formulated hypotheses the results and discussion are presented in the next chapter.

A copy of scale is enclosed in Appendix- A. Academic achievement scores of the respondents in the form of raw scores are given in appendix-B.