CHAPTER - III

Methodology
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Methodology is one of the most important aspect in carrying out any kind of research. It refers to the theoretical analysis of the methods appropriate to a field of study or to a body of practices, procedures and rules used by those who work in a discipline or engage in an inquiry, a set of working methods. The various aspects concerning the methodology have been described under the following heads:

Sample: Sample is a subset of population. Polit et al. (2001) defines sample as a “proportion of a population”. One of the important things about sample is that, it should possess all the characteristics of the population or universe selected for investigation. Moreover the selection of the sample should depend upon the objective of the study.

The sample for the present study comprised of 300 school students. Student's age ranged between 15-16 years. Purposive random sampling technique was used to select the sample. Students were selected from different schools of Aligarh district. The schools were studied over a period of time and were categorized as advantaged and disadvantaged school. In total four schools were taken, two each belonged to advantaged and disadvantaged school category. 150 students were selected from advantaged schools comprising of 90 boys and 60 girls while 150 students were selected from disadvantaged schools comprising of 76 boys and 74 girls. When we are using the term advantaged and disadvantaged while describing a school, then there are many factors about the school and its environment we were referring to. Disadvantaged schools were the one which lacked proper infrastructure, had inadequate educational resources, there was lack of proper teaching system, no new technologies that could benefits the students in today’s advanced, ever changing world. The school building was poorly built there was absence of proper sitting
arrangements, no proper hygiene facilities, lack of proper playgrounds, over crowded and pathetic conditions of classrooms and other school areas. In these schools no initiatives for co-curricular involvement in sports, arts, hobbies, personality development, music, drama etc was taken and usually the services of these schools was accessed by marginalized families, who due to lack of monetary strength, cannot afford the time and energy to be part of their child's educational life. On the other hand advantaged schools were characterized by good learning environment. In these schools, teachers know their students, efforts were put on creating a motivating environment, which encourages students creativity, problem solving abilities, critical thinking. New technologies were installed for making learning a better experience. Such schools also maintained that teachers have thorough knowledge of their subjects and know the best way to make student learn and understand things and also encourage and teach them the importance of learning and collecting knowledge throughout their life. The academic results of these schools also come good. Fees structure of these schools was high, so they usually have students who belong to high socio-economic status. There infrastructure is well built, classrooms were well lighted and ventilated and focus is also given to extra co-curricular activities. The following figure shows the clear break-up of the sample:

Distribution of Subjects

\[(N = 300)\]

- Advantaged Schools \((N=150)\)
  - Boys \((N=90)\)
  - Girls \((N=60)\)

- Disadvantaged Schools \((N=150)\)
  - Boys \((N=76)\)
  - Girls \((N=74)\)
TOOLS:-

Tools are very important part of the research. Measuring of human behavior is very complex, in the present study help of following instruments were taken for gaining information regarding every variable:

**Home Environment Scale:** Home environment inventory (1989) developed by Dr. Karuna Shankar Misra was used to measure the variable home environment. It is an instrument designed to measure the “psycho social climate” of the home as perceived by children. It provides a measure of the quality and quantity of the cognitive, emotional and social support that has been available to the child within the home. This inventory has 100 items belonging to ten dimensions of home environment. The dimensions of the home environment inventory are following:

1. **Control:** It indicates “autocratic atmosphere in which many restrictions are imposed on children by the parents in order to discipline them”.

2. **Protectiveness:** It implies “prevention of independent behavior and prolongation of infantile care”.

3. **Punishment:** It implies “physical as well as affective punishment to avoid the occurrence of undesirable behavior”.

4. **Conformity:** It indicates “parent’s directions, commands with which child is expected to comply by action”.

5. **Social Isolation:** It indicates “use of isolation from beloved persons except family members for negative sanctions”.

6. **Rewards:** It includes “maternal as well as symbolic rewards to strengthen or increase the probability of desired behavior”.


7. Deprivation of privileges: It implies "controlling children's behavior by depriving them or their rights to seek love, respect and child care from parents".

8. Nurturance: It indicates "existence of excessive attachment of parents with the child".

9. Rejection: It implies "conditional love recognizing that the child has no rights as a person, no rights to express his feelings, no right to uniqueness and no right to become an autonomous individual".

10. Permissiveness: It includes "provision of opportunities for child to express his views freely and act according to his desires with no interference from parents".

This inventory can be administered in individual or group settings. Each item in the inventory is to be answered with the help of 5 point scale ranging from 4 to 0, the instrument requires pupils to tell the frequency with which a particular parent-child interaction has been observed by them in their homes, i.e. he/she is requested to tell whether a particular parental behavior (as mentioned in an item) occurs- 'mostly', 'often', 'sometimes', 'least' and 'never'. Split half reliability coefficient for ten components of home environment inventory range from .73 to .95. Home environment inventory has been found to have content validity as measured with the help of views expressed by judges. The cronbach alpha for present study was .697.

School Environment inventory: The school environment inventory (2000) developed by Dr. Karuna Shankar Misra was used to measure the variable school environment (SEI). It consists of 70 items related to the six dimensions of school environment.
The six dimensions are:

1. Creative Stimulation (CRS): It implies "teacher's activities to provide conditions and opportunities to stimulate creative thinking".

2. Cognitive Encouragement (CE): It implies "teacher's behavior to stimulate cognitive development of student by encouraging his actions or behavior".

3. Acceptance (ACC): It indicates "a measure of teacher's unconditional love, recognizing that student has the right to express feelings, to uniqueness and to be autonomous individuals".

4. Permissiveness (PER): It indicates "a school climate in which students are provided opportunities to express their views freely and act according to their desires with no interruption from teachers".

5. Rejection (REJ): It refers to "a school climate in which teachers do not accord recognition to student's right to deviate, act freely and to be autonomous person".

6. Control (CON): It indicates "autocratic atmosphere of the school in which several restrictions are imposed on students to discipline them".

Twenty items belongs to creative stimulation dimension. While each of the remaining five dimensions has ten items belonging to them. So in total it has 70 items. The instrument requires pupils to tell the frequency with which a particular teacher-pupil interaction behavior is expressed in his or her school occurs as- "Always", "Often", "Sometimes", "Rarely" and "Never".

There is no time-limit for this tool. The split half reliability for various dimensions of school environment inventory is: Creative stimulation: .919, Cognitive encouragement: .797, Acceptance: .823, Permissiveness: .781, Rejection: .781, Control: .762.
School environment inventory has found to possess content validity as measured with the help of views expressed by judges. The cronbach alpha for this study was .756.

**Aggression Questionnaire:** To measure aggression, Buss and Perry aggression questionnaire (1992) was used. This questionnaire consisted of 29-items, and it is a five point scale ranging from 1 to 5, with 1 indicating as extremely uncharacteristic of me, 2 as somewhat uncharacteristic of me, 3 as neither uncharacteristic nor characteristics of me, 4 indicating as somewhat characteristics of me and 5 indicating as extremely characteristics of me. The two questions with the asterisk are reverse scored. Test-retest reliability for the scale was found to be .80. This scale has proven useful in predicting laboratory and real world aggression (Bushman and Wells, 1998; Buss and Perry, 1992). The cronbach alpha for present study was .698.

**Self-concept inventory:** In order to measure self-concept Dr. Raj Kumar Saraswat Self-concept questionnaire (1984) was used. Saraswat and Gaur (1981) described self-concept as “the self-concept is the individual’s way of looking at himself. It also signifies his way of thinking, feeling and behaving”. The questionnaire consisted of 48 items. Each item is provided with five alternatives. There is no time limit for responding to all the items.

Reliability of the inventory was found by test-retest method, and it was found to be .91 for the total self-concept measure. Expert’s opinion was obtained to establish the validity of the inventory. Thus the content and construct validity were established. The maximum obtained score is 240 and minimum is 40. High score on this inventory means high self-concept and low score means low self-concept. The cronbach alpha for present study was .768.
Demographic information sheet: Demographic information sheet consisted of name, age, gender, type of family and area of living, were obtained along with questionnaires.

PROCEDURE:

Prior to the data collection, the researcher through careful observation identified the advantaged and disadvantaged schools. Then after that, researcher visited these schools and met the administration of these schools and took permission from them to collect the data for her research. When the permission was given researcher visited the classrooms and rapport was established with students. After establishing rapport with them, they were briefly told about the study. Once they gave their consent for the study, questionnaires were administered. Then instructions were given about how to fill the questionnaires. The students were assured that the information given by them will be kept confidential and their response will be used only for research purposes. Subjects were encouraged to give honest responses.

When the subjects finished answering the questionnaires, the researcher thanked the subjects for their cooperation and for sparing their time for the study.

STATISTICAL ANALYSIS:

Once the data was collected using the above mentioned inventories and tabulation of scores was done, then it became important to apply appropriate statistical test in order to obtain the results. So by keeping the research problem and its objective in mind, multiple regression analysis was applied on the data. Multiple regression analysis studied the influences of several predictor variables simultaneously on the criterion variables. It is basically used to make prediction about criterion variable on the basis of various predictor variables. Of the various methods step-wise multiple regression analysis was used. Beside this t-test was also used in
order to find out the significant difference between genders on certain variables and Pearson’s coefficient of correlation was also applied to find out the correlation between demographic and psychological variables. Analyses were done using 16.0 version SPSS (Statistical Package of Social Sciences), which yielded results in different steps.