Chapter – III

PROCEDURE AND DESIGN OF THE STUDY

Research is purposive, scientific and pointed deliberation. Since research is not haphazard task, it requires one to proceed in a definite direction along with well-defined lines. Collection of mere bits of information is not research. Planning & procedure for study are deemed essential for saving it from becoming a heap of jumbled ideas gathered from here and there. It goes without saying that ultimate success of a research project generally depends upon the methods employed in it. Even a good research problem cannot give useful results unless the plan and procedure to carry out the study do not match with the nature of the problem. This plan and strategy to get answer to research question generally constitute a research design. Thus, a research design is the plan, structure and strategy or the overall scheme or programme of the research. A research design guides the investigator in the process of collecting, analyzing and interpreting data. In other words it tells us how to analyze the quantitative representation of the observations.

Adequately planned and executed design helps greatly in permitting the researcher to rely on both observations and inferences. Thus, the research design is the logical model of proof which allows the researcher to draw inferences concerning causal relations among the variables under investigation. It also tells us whether the obtained interpretation can be generalized to a large sample or to different situations. However, in the words of Kerlinger, “the research design does not tell us precisely what to do but rather suggests the direction of observations in making the analysis”. Once the data has been arranged and objectives are finalised, a clear cut design has to be shaped, so as to accomplish the objectives of the study.

The present chapter delineates the objectives and hypotheses of the study, the sample selected as well as the procedure followed in the process of sample selection; the tools used for the study and the procedure of the data collection. The chapter concludes with specifying the method that has been adopted for data analysis as well as the scope and delimitations of the study. However, to bring clarity of understanding in the
objectives and corresponding hypotheses, it was thought essential to report the independent and dependent variables of the study. The present investigation was conducted including the following dependent variables:

- Academic Stress
- Coping Strategies

The independent variables of the present investigation were:

- Personality
- Home Environment

3.1 Statement of the Problem

*Academic Stress and Coping Strategies of Adolescents in relation to their Personality and Home Environment*

3.2 Objectives of the Study

The main objectives of the study are:

1. To find out the relationship of academic stress with personality traits of adolescents in case of total sample.
2. To find out the relationship of academic stress with personality traits of adolescent girls.
3. To find out the relationship of academic stress with personality traits of adolescent boys.
4. To find out the relationship of academic stress with home environment of adolescents in case of total sample.
5. To find out the relationship of academic stress with home environment of adolescent girls.
6. To find out the relationship of academic stress with home environment of adolescent boys.
7. To find out the relationship of coping strategies with personality traits of adolescents in case of total sample.
8. To find out the relationship of coping strategies with personality traits of adolescent girls.

9. To find out the relationship of coping strategies with personality traits of adolescent boys.

10. To find out the relationship of coping strategies with home environment of adolescents in case of total sample.

11. To find out the relationship of coping strategies with home environment of adolescent girls.

12. To find out the relationship of coping strategies with home environment of adolescent boys.

13. To identify the predictors of academic stress from among the independent variables of personality and home environment in case of total sample.

14. To identify the predictors of coping strategies from among the independent variables of personality and home environment in case of total sample.

15. To identify the predictors of academic stress from among the independent variables of personality and home environment in case of adolescent girls.

16. To identify the predictors of coping strategies from among the independent variables of personality and home environment in case of adolescent girls.

17. To identify the predictors of academic stress from among the independent variables of personality and home environment in case of adolescent boys.

18. To identify the predictors of coping strategies from among the independent variables of personality and home environment in case of adolescent boys.

19. To compare the academic stress of adolescents having high and low score on different personality traits.

20. To compare the academic stress of adolescents having high and low score on different dimensions of home environment.

21. To compare the coping strategies of adolescents having high and low score on
different personality traits.

22. To compare the coping strategies of adolescents having high and low score on different dimensions of home environment.

3.3 Hypotheses of the Study

On the basis of above mentioned objectives, following null hypotheses have been framed for verification:

$H_1$ No relationship exists between academic stress and personality traits of adolescents in case of total sample.

$H_2$ No relationship exists between academic stress and personality traits of adolescent girls.

$H_3$ No relationship exists between academic stress and personality traits of adolescent boys.

$H_4$ No relationship exists between academic stress and home environment of adolescents in case of total sample.

$H_5$ No relationship exists between academic stress and home environment of adolescent girls.

$H_6$ No relationship exists between academic stress and home environment of adolescent boys.

$H_7$ No relationship exists between coping strategies and personality traits of adolescents in case of total sample.

$H_8$ No relationship exists between coping strategies and personality traits of adolescent girls.

$H_9$ No relationship exists between coping strategies and personality traits of adolescent boys.
H°10 No relationship exists between coping strategies and home environment of adolescents in case of total sample.

H°11 No relationship exists between coping strategies and home environment of adolescent girls.

H°12 No relationship exists between coping strategies and home environment of adolescent boys.

H°13 None of the independent variables of personality and home environment would contribute significantly in predicting the academic stress among adolescents independently or conjointly in case of total sample.

H°13-1 None of the independent variables of personality and home environment would contribute significantly in predicting the cognitive factor of academic stress among adolescents independently or conjointly in case of total sample.

H°13-2 None of the independent variables of personality and home environment would contribute significantly in predicting the affective factor of academic stress among adolescents independently or conjointly in case of total sample.

H°13-3 None of the independent variables of personality and home environment would contribute significantly in predicting the physical factor of academic stress among adolescents independently or conjointly in case of total sample.

H°13-4 None of the independent variables of personality and home environment would contribute significantly in predicting the social/interpersonal factor of academic stress among adolescents independently or conjointly in case of total sample.

H°13-5 None of the independent variables of personality and home environment would contribute significantly in predicting the motivational factor of
academic stress among adolescents independently or conjointly in case of total sample.

**H°14** None of the independent variables of personality and home environment would contribute significantly in predicting the coping strategies of adolescents independently or conjointly in case of total sample.

**H°14-1** None of the independent variables of personality and home environment would contribute significantly in predicting the confrontive coping strategy of adolescents independently or conjointly in case of total sample.

**H°14-2** None of the independent variables of personality and home environment would contribute significantly in predicting the distancing coping strategy of adolescents independently or conjointly in case of total sample.

**H°14-3** None of the independent variables of personality and home environment would contribute significantly in predicting the self-controlling coping strategy of adolescents independently or conjointly in case of total sample.

**H°14-4** None of the independent variables of personality and home environment would contribute significantly in predicting the seeking social-support coping strategy of adolescents independently or conjointly in case of total sample.

**H°14-5** None of the independent variables of personality and home environment would contribute significantly in predicting the accepting responsibility coping strategy of adolescents independently or conjointly in case of total sample.

**H°14-6** None of the independent variables of personality and home environment would contribute significantly in predicting the escape avoidance coping strategy of adolescents independently or conjointly in case of total sample in case of total sample.
None of the independent variables of personality and home environment would contribute significantly in predicting the planful problem solving coping strategy of adolescents independently or conjointly in case of total sample.

None of the independent variables of personality and home environment would contribute significantly in predicting the positive reappraisal coping strategy of adolescents independently or conjointly in case of total sample.

None of the independent variables of personality and home environment would contribute significantly in predicting the academic stress among adolescent girls independently or conjointly.

None of the independent variables of personality and home environment would contribute significantly in predicting the cognitive factor of academic stress among adolescent girls independently or conjointly.

None of the independent variables of personality and home environment would contribute significantly in predicting the affective factor of academic stress among adolescent girls independently or conjointly.

None of the independent variables of personality and home environment would contribute significantly in predicting the physical factor of academic stress among adolescent girls independently or conjointly.

None of the independent variables of personality and home environment would contribute significantly in predicting the social/interpersonal factor of academic stress among adolescent girls independently or conjointly.

None of the independent variables of personality and home environment would contribute significantly in predicting the motivational factor of academic stress among adolescent girls independently or conjointly.
None of the independent variables of personality and home environment would contribute significantly in predicting the coping strategies of adolescent girls independently or conjointly.

H°16-1 None of the independent variables of personality and home environment would contribute significantly in predicting the confrontive coping strategy of adolescent girls independently or conjointly.

H°16-2 None of the independent variables of personality and home environment would contribute significantly in predicting the distancing coping strategy of adolescent girls independently or conjointly.

H°16-3 None of the independent variables of personality and home environment would contribute significantly in predicting the self-controlling coping strategy of adolescent girls independently or conjointly.

H°16-4 None of the independent variables of personality and home environment would contribute significantly in predicting the seeking social-support coping strategy of adolescent girls independently or conjointly.

H°16-5 None of the independent variables of personality and home environment would contribute significantly in predicting the accepting responsibility coping strategy of adolescent girls independently or conjointly.

H°16-6 None of the independent variables of personality and home environment would contribute significantly in predicting the escape avoidance coping strategy of adolescent girls independently or conjointly.

H°16-7 None of the independent variables of personality and home environment would contribute significantly in predicting the planful problem solving coping strategy of adolescent girls independently or conjointly.

H°16-8 None of the independent variables of personality and home environment would contribute significantly in predicting the positive reappraisal coping strategy of adolescent girls independently or conjointly.
H°17 None of the independent variables of personality and home environment would contribute significantly in predicting the academic stress among adolescent boys independently or conjointly.

H°17-1 None of the independent variables of personality and home environment would contribute significantly in predicting the cognitive factor of academic stress among adolescent boys independently or conjointly.

H°17-2 None of the independent variables of personality and home environment would contribute significantly in predicting the affective factor of academic stress among adolescent boys independently or conjointly.

H°17-3 None of the independent variables of personality and home environment would contribute significantly in predicting the physical factor of academic stress among adolescent boys independently or conjointly.

H°17-4 None of the independent variables of personality and home environment would contribute significantly in predicting the social/interpersonal factor of academic stress among adolescent boys independently or conjointly.

H°17-5 None of the independent variables of personality and home environment would contribute significantly in predicting the motivational factor of academic stress among adolescent boys independently or conjointly.

H°18 None of the independent variables of personality and home environment would contribute significantly in predicting the coping strategies of adolescent boys independently or conjointly.

H°18-1 None of the independent variables of personality and home environment would contribute significantly in predicting the confrontive coping strategy of adolescent boys independently or conjointly.

H°18-2 None of the independent variables of personality and home environment would contribute significantly in predicting the distancing coping strategy of adolescent boys independently or conjointly.
H\textsuperscript{18}-3 None of the independent variables of personality and home environment would contribute significantly in predicting the self-controlling coping strategy of adolescent boys independently or conjointly.

H\textsuperscript{18}-4 None of the independent variables of personality and home environment would contribute significantly in predicting the seeking social-support coping strategy of adolescent boys independently or conjointly.

H\textsuperscript{18}-5 None of the independent variables of personality and home environment would contribute significantly in predicting the accepting responsibility coping strategy of adolescent boys independently or conjointly.

H\textsuperscript{18}-6 None of the independent variables of personality and home environment would contribute significantly in predicting the escape avoidance coping strategy of adolescent boys independently or conjointly.

H\textsuperscript{18}-7 None of the independent variables of personality and home environment would contribute significantly in predicting the planful problem solving coping strategy of adolescent boys independently or conjointly.

H\textsuperscript{18}-8 None of the independent variables of personality and home environment would contribute significantly in predicting the positive reappraisal coping strategy of adolescent boys independently or conjointly.

H\textsuperscript{19} Hypotheses related to Academic Stress of Adolescents and their Personality traits.

H\textsuperscript{19}-1 Adolescents having activity and passivity trait of personality do not differ significantly on their academic stress.

H\textsuperscript{19}-2 Adolescents having enthusiastic and non-enthusiastic trait of personality do not differ significantly on their academic stress.

H\textsuperscript{19}-3 Adolescents having assertive and submissive trait of personality do not differ significantly on their academic stress.

H\textsuperscript{19}-4 Adolescents having suspicious and trusting trait of personality do not
differ significantly on their academic stress.

H₀19-5 Adolescents having depressive and non-depressive trait of personality do not differ significantly on their academic stress.

H₀19-6 Adolescents having emotional instability and emotional stability trait of personality do not differ significantly on their academic stress.

H₀20 Hypotheses related to Academic Stress of Adolescents and their Home Environment.

H₀20-1 Adolescents having high and low scores on control factor of home environment do not differ significantly on their academic stress.

H₀20-2 Adolescents having high and low scores on protectiveness factor of home environment do not differ significantly on their academic stress.

H₀20-3 Adolescents having high and low scores on punishment factor of home environment do not differ significantly on their academic stress.

H₀20-4 Adolescents having high and low scores on conformity factor of home environment do not differ significantly on their academic stress.

H₀20-5 Adolescents having high and low scores on social isolation factor of home environment do not differ significantly on their academic stress.

H₀20-6 Adolescents having high and low scores on reward factor of home environment do not differ significantly on their academic stress.

H₀20-7 Adolescents having high and low scores on deprivation of privileges factor of home environment do not differ significantly on their academic stress.

H₀20-8 Adolescents having high and low scores on nurturance factor of home environment do not differ significantly on their academic stress.

H₀20-9 Adolescents having high and low scores on rejection factor of home environment do not differ significantly on their academic stress.

H₀20-10 Adolescents having high and low scores on permissiveness factor of home environment do not differ significantly on their academic stress.

H₀21 Hypotheses related to Coping Strategies adopted by Adolescents and their Personality traits.

H₀21-1 Adolescents having activity and passivity trait of personality do not differ
significantly on different dimensions of coping strategies.

H_{21-2} Adolescents having enthusiastic and non-enthusiastic trait of personality do not differ significantly on different dimensions of coping strategies.

H_{21-3} Adolescents having assertive and submissive trait of personality do not differ significantly on different dimensions of coping strategies.

H_{21-4} Adolescents having suspicious and trusting trait of personality do not differ significantly on different dimensions of coping strategies.

H_{21-5} Adolescents having depressive and non-depressive trait of personality do not differ significantly on different dimensions of coping strategies.

H_{21-6} Adolescents having emotional instability and emotional stability trait of personality do not differ significantly on different dimensions of coping strategies.

H_{22} Hypotheses related to Coping Strategies adopted by adolescents and their Home Environment.

H_{22-1} Adolescents having high and low scores on control factor of home environment do not differ significantly on different dimensions of coping strategies.

H_{22-2} Adolescents having high and low scores on protectiveness factor of home environment do not differ significantly on different dimensions of coping strategies.

H_{22-3} Adolescents having high and low scores on punishment factor of home environment do not differ significantly on different dimensions of coping strategies.

H_{22-4} Adolescents having high and low scores on conformity factor of home environment do not differ significantly on different dimensions of coping strategies.

H_{22-5} Adolescents having high and low scores on social isolation factor of home environment do not differ significantly on different dimensions of coping strategies.

H_{22-6} Adolescents having high and low scores on reward factor of home environment do not differ significantly on different dimensions of coping strategies.
strategies.
H_o 22-7 Adolescents having high and low scores on deprivation of privileges factor of home environment do not differ significantly on different dimensions of coping strategies.
H_o 22-8 Adolescents having high and low scores on nurturance factor of home environment do not differ significantly on different dimensions of coping strategies.
H_o 22-9 Adolescents having high and low scores on rejection factor of home environment do not differ significantly on different dimensions of coping strategies.
H_o 22-10 Adolescents having high and low scores on permissiveness factor of home environment do not differ significantly on different dimensions of coping strategies.

3.4 Methodology

Methodology makes the most important contribution towards the enrichment of any study. To undertake any research it is necessary to design and plan the procedure and the methods to be used. In research, there are numerous methods and procedures to be applied. But it is the nature of the problem under investigation which determines the adaptation of a particular method and procedure. Procedure helps the investigator to achieve economy in time and coordination of efforts. For the present study, Descriptive Survey method was employed.

3.4.1 Sample of the Study

On some occasions, an entire population of individuals may be included in a research study but in many educational research studies it is simply not feasible to include all members of a population. A sample is a small proportion of population selected for gathering data and performing its analysis. To do this, the researcher wants the sample or the individuals that are actually involved in the research, to be representative of the larger population. Thus, by observing the sample, certain inferences may be made about the population.
400 adolescents studying in 11th and 12th class from various senior secondary schools of Haryana constituted the universe of the study. In order to draw a representative sample, eight senior secondary schools from Faridabad district of Haryana State were selected. The selection of the schools was done randomly by the investigator and the subjects within the schools were also selected on the basis of randomization technique of sampling.

3.4.2 Tools and Techniques used in the Study

Like other disciplines various tools are used in educational research too. Selection of appropriate tools enables the researcher to accomplish the objectives in an effective manner; otherwise it will distort the entire findings of the study. Generally, selection of tools depends upon the objectives of the study and the size and nature of the sample. Gathering specific information on variety of topics and sub topics from a large number of samples which are available at one place is possible only with the help of appropriate tools.

The researcher has used the following tools for data collection:

2. Ways of Coping Questionnaire by Folkman & Lazarus (Hindi version-2008, adapted by Dr. Anirudh, Dept. of Psychology, MDU, Rohtak)
3. Dimensional Personality Inventory by Mahesh Bhargava (2006)

3.5 Description of the Tools

3.5.1 Ways of Coping’ Questionnaire by Folkman & Lazarus (1988)

Conceptual Background

The Ways of Coping Questionnaire is based on a definition of coping as the cognitive and behavioral efforts to manage specific external and/or internal demands appraised as taxing or exceeding the resources of the individual. This definition has four key Features:

1. It is process-oriented;
(2) It speaks of management rather than mastery;
(3) It makes no a prior judgment about the quality of coping processes; and
(4) It implies a Stress-based distinction between coping and automatic adaptive behaviours.

Description of Ways of Coping

The sample from which the coping scales were developed was composed of 75 middle-and upper-middle-class white married couples who had at least one child living at home. Husbands and wives were interviewed separately in their homes by different interviewers once a month for five months. Subjects were asked to describe the most stressful encounter experienced during the previous week and then to fill out the Ways of coping Questionnaire. Observations from the five interviews were pooled. The means, standard deviations, Skewness and factor loading of each item are shown in the manual. The value of the Skewness statistics will be zero for a symmetric distribution, negative when the tail of the distribution extends to the left and positive when it extends to the right. For a given item, then, a large Skewness static’s means that a high frequency of respondents indicated that the behaviour described by the item was “not used” (positively skewed) in coping with the focal event.

The items on the Ways of Coping Questionnaire were analyzed, using alpha and principal factoring with oblique rotation. Oblique rotation was selected because individuals are expected to choose from an array of coping strategies rather than use one set of strategies to the exclusion of others. Three separate factor analyses were completed, using different strategies for combining person-occasions or observations. First, analysis was conducted on the entire set of 750 observations, 5 observations from each of the 150 subjects, each of the 5 observations focusing on a different stressful encounter. Second, 150 stressful encounters or 1 per subject, was randomly selected from the 750, so that each of the 5 occasions was equally represented. Third, an additional sample of 150 stressful encounters was also randomly selected from the 750 total encounters, without replacement of the prior 150 encounters, again equally represented each of the 5 occasions.
The three factors analysis yielded similar factor patterns: 37 items consistently loaded high on the same factor across all 3 analyses; 22 items loaded on the same factor fairly consistently, although 9 of these were eliminated on the basis of marginal factor loading or lack of conceptual coherence with their scale; and 7 items did not consistently load on any factor and were eliminated. Because multiple factor analysis had been conducted, several estimates of each item’s factor loading were available. A final principal factor analysis was performed, therefore, on the 750 observations with the final 50 items to provide an estimate of each item’s factor loading. This analysis called for eight factors and the resulting eight scales are described in following table:

<table>
<thead>
<tr>
<th>Coping Strategy</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confrontive Coping</td>
<td>Describes aggressive efforts to alter the situation and suggests some degree of hostility and risk taking.</td>
</tr>
<tr>
<td>Distancing</td>
<td>Describes cognitive efforts to detach oneself and to minimize the significance of the situation.</td>
</tr>
<tr>
<td>Self-Controlling</td>
<td>Describes efforts to regulate one’s feelings and actions.</td>
</tr>
<tr>
<td>Seeking Social Support</td>
<td>Describes efforts to seek informational support, tangible support and emotional support.</td>
</tr>
<tr>
<td>Accepting Responsibility</td>
<td>Acknowledges one’s own role in the problem with a concomitant theme of trying to put things right.</td>
</tr>
<tr>
<td>Escape-Avoidance</td>
<td>Describes wishful thinking and behavioural efforts to escape or avoid the problem.</td>
</tr>
<tr>
<td>Planful Problem Solving</td>
<td>Describes deliberate problem-focused efforts to alter the situation, coupled with an analytic approach to solving the problem.</td>
</tr>
<tr>
<td>Positive Reappraisal</td>
<td>Describes efforts to create positive meaning by focusing on personal growth. It also has a religious dimension.</td>
</tr>
</tbody>
</table>
**Administration**

The ways of Coping Questionnaire can be completed in about ten minutes, although the time will vary with respondents. Items on the questionnaire have been designed to be answered in relation to a specific, stressful encounter, although no single standardized method has been devised for eliciting it. The method must be adapted to fit the needs of the specific study. For example, the Ways of coping questionnaire was used as an interview protocol in one set of studies and as a self-administered assessment in another. It has also been used to assess coping in encounters chosen by the respondent as well as in encounters chosen by ourselves to investigate a particular research question.

**Scoring**

There are two methods for scoring the ways of coping questionnaire, raw and relative. The decision as to which set of scores to use depends on the information desired. Raw scores describe coping effort for each of the eight types of coping, whereas relative scores describe the proportion of effort represented by each type of coping.

In both methods of scoring, individuals respond to each item on a 4-point Likert scale, indicating the frequency with which each strategy is used: 0 indicates “does not apply and/or not used,” 1 indicates “used somewhat,” 2 indicates “used quite a bit,” and 3 indicates “used a great deal”. In the raw scoring, raw scores are the sum of the subject’s response to the items. That comprises a given scale. This method used in the majority four researches, provides a summary of the extent to which type of coping was used in a particular encounter. Note that these are scores; responses are not differentially weighted according to factor loadings.

Relative scores, which were suggested to us by Peter Vitaliano (Vitaliano, Maiuro, Russo, & Becker, 1987), describes the contribution of each scale computed by (a) calculating the average item score for the items on a given scale by dividing the sum of the ratings on the scale by the number of items on that scale, (b) calculating the sum of the average. Items scores across all eight scales, and (c) dividing the average item score for a given technique controls for the unequal numbers of items within the scales and for individual differences in response rates. The results of the study by Vitaliano, Maiuro, et al. (1987) on five scales (named by them as problem-focused Coping, Seeks social Support, Blamed Self, Wishful Thinking and Avoidance) indicated that the relative
scores revealed relations among ways of coping that can be blurred with the raw score technique

**Reliability**

Because the ways of Coping Questionnaire measures coping processes, which, by definition, are variable, traditional test-retest estimates of reliability are inappropriate. Reliability can be evaluated, however, by examining the internal consistency of the coping measures, estimated with Cronbach’s coefficient alpha. Internal consistency estimates of coping measures generally fall at the low end of the traditionally acceptable range. As Billings and Moos (1981) point out, those who are constructing coping measures attempt to minimize item redundancy within each coping Category, resulting in groups of relatively independent clusters of coping strategies within each category. Furthermore, the use of the one coping responses may produce the desired effect, which lessens the need and probability that other coping responses from the same category will be used.

The alpha coefficients for the eight scales, shown in table 2, are higher than the alphas reported for most other measures of coping processes. A related issue concerns the reliability or stability of the factor structure. The invariance of the factor structure across populations and stressful episodes must be evaluated with standardized procedures. Current evidence suggests a good deal of convergence with respect to several factors, but not all. For example, Vitaliano, Russo, Carr, Maiuro and Becker (1985) factor-analyzed the original Ways of Coping Checklist (with a Likert scale Response format), using three distressed samples: psychiatric outpatients, spouses of patients with Alzheimer’s disease and medical students. The factoring procedure produced scales that they labelled Problem-Focused coping, Blamed Self, Wishful Thinking, Seeks Social Support, Minimize threat and Avoidance. Aldwin and Revenson (1987) factors analyzed the revised Ways of Coping Questionnaire and also identified eight factors that converged to a large extent with previous factorings. A high degree of convergence was also found in a sample of older, middle class community residents (Folkman, Lazarus, Pimley, & Novacek, 1987). It is unclear whether variance in the factor structure is a function of
persons, situations, methods of administrations or whether it is due to psychometric properties, such as lack of the measurement themselves.

People also vary their coping efforts according to what is at stake in a given encounter, what we call primary appraisal. We have learned that individuals are apt to use more self-control, accept more responsibility, use more-avoidance and seek less social support in encounters viewed as highly threatening to their self-esteem than they would in encounters that do not pose this threat when a loved one’s well-being is threatened, individuals draw more on confrontive coping, distancing, escape-avoidance, and planful problem solving. The fact that people vary their coping to fit the possibility for coping (secondary appraisal) and the nature of the threat (primary appraisal) in a given context is consistent with our theoretical premise that coping is determined by the relationship between the person and environment, rather than by independent person or situation factors.

Validity

The items on the Ways of Coping Questionnaire have face validity since the strategies described are those that individuals have reported using to cope the demands of stressful situations. The face validity of the items of various translations of the instrument needs to be examined to determine the extent to which the items have similar meanings across nationalities; translations have been done in the Dutch, Hebrew, Spanish, French and German languages. Evidence of construct validity is found in that the results of our studies are consistent with our theoretical predictions, namely,: (1) coping consists of both problem-focused and emotion-focused strategies and (2) coping is a process. That is, how people cope varies in relation to the demands and constraints of the context and also in relation to changes in those demands and constraints as an encounter unfolds. Because our first field studies (Folkman & Lazarus, 1980) have revealed that people have used both problem-focused and emotion-focused types of coping in virtually every stressful encounter, formulations that define the coping process solely in terms of one or the other are inadequate. The importance of assessing both problem-focused and emotion-focused functions was further supported by subsequent investigations using the original Ways of Coping Checklist, including studies by Braukmann, Fillipp, Andleitner and Olbrich

People vary their coping efforts according to their situational appraisal of control, what we call secondary appraisal. Problem-focused types of coping are more often used in encounters in which the outcome is appraised as changeable as in encounters that must be accepted, while emotions-focused types of coping are more often used in encounters that must be accepted than in encounters holding a possibility for change (Folkman & Lazarus, Dunkel-schetter, et al, 1986) People also vary their Coping as an encounter unfolds. Because individuals find it difficult, however, to describe the sequences of their coping strategies after the fact, we designed a study in which we could follow subjects from stage to stage. A midterm examination was chosen as the focal encounters (Folkman & Lazarus, 1985) and students were assessed two days before the exams, two days after the exam (before grades were announced) and again after grades were announced. As predicted, the students varied their coping was used most before the exam, distancing was used most immediately after the exam as students awaited their grades were announced, depending on the grade received. The poorer the grade, the more these types of coping was used.

The various forms of coping tend to differ in the extent to which they are variable or stable across situations. An estimate of stability that can be used to examine these differences is the mean auto correlation between each successive pair of scores on each coping scale. For example, the Confrontive Coping scores in the first encounter is correlated with the same score in the second encounter, the Confrontive Coping score in the second encounter is then correlated with the same score in the third encounter and so on. Using this technique, the mean auto relation of each coping scale was calculated across five stressful encounters in the study of married couples (Folkman, Lazarus, Gruen, & DeLongis, 1986) and was found to range from 17 to 47. Positive reappraisal had the highest average autocorrelation (r=47), suggesting that it was most influenced by personality. A comparable scale was most stable in the earliest of our factor analyses (Coyne et al. 1981)

The findings of our several studies provide clear support for the Ways of Coping Questionnaire as a measure that captures (1) both problem-focused and emotion-focused
coping functions and (2) changes in coping both across different encounters and within a particular encounter. The construct validity of the Ways of Coping Questionnaire is thus supported to the extent that the findings are consistent with theoretical predictions.

**3.5.2 Scale for Assessing Academic Stress (SAAS)**

**Conceptual Background**

It is a ‘Cultural truism’ that stress is associated with impairment of health and negative emotional experiences associated with stress are detrimental to ‘quality of life and sense of well being’ (Sinha, 2000). Out of number of stress faced by adolescents and young adults, academic stress emerges as significant mental health problems in recent years (Rangaswamy, 1995). It has been estimated that 10% to 30% students experience academic related stress that affects their academic performance (Johnson, 1979, Hoghughi, 1980, Brackney & Karabenick, 1995), psychosocial adjustment (Philips, 1978) along with their overall emotional and physical wellbeing. Information load, high expectations, academic burden or pressure, unrealistic ambitions, limited opportunities, high competitiveness are some of the important sources of stress which creates tension, fear and anxiety. Poor academic performance diminished peer popularity, depression, attention difficulties, somatic complaints, substance abuse are commonly observed problems among the victims of academic stress without being aware of how to cope with them (Sinha, 2000; Rngaswami, 1995; Brackney & Karabenick, 1995; Rao & Parthasarathi, 1993; Strauss, 1990; Segal, Hobfoll & Cromer, 1984). Stress and such problems usually form a positive feedback loop or vicious circle as they themselves act as significant sources of stress and sensitize the students to the other sources of stress by reducing his or her ability to cope (Kiselica et.al. 1994). Hence, management of academic stress becomes essential in the process of producing quality human resources, for the nation.

**Description of SAAS**

Initially a 45 item scale was prepared on ‘yes’ and ‘no’ format after reviewing literature on academic stress and consulting experts in this area. Items of the scale were written in simple English language that can be easily understood by students with VIIth grade education in English medium. The scale was then given to a sample of 100 students
studying in different grades (VII - XII) to give their responses individually. After item analysis which was done using the data of 100 subjects, 15 items were dropped out and 6 items were modified according to the need felt. Thus the remaining 30 items were retained in the final form of the scale.

The final form of the scale for Assessing Academic Stress (SAAS) was administered on the randomly selected sample of 400 students after seeking permission of the school and college authorities. After completing SAAS, all the subjects were given Academic Anxiety Scale for Children (AASC) and Beck Depression Inventory (BDI) to complete. The obtained data on all the three measures were subjected to appropriate statistical analysis.

**Scoring**

The scale has shown adequate capacity to draw normally distributed data with regards to academic stress in school and college students. The percentage of students scoring with one standard deviation from mean is 67% between one standard deviation to two standard deviations form mean is 20.5%, between two and three standard deviations from mean is 5.75%. These figures are very near to the range of normal distribution curve making the mean score 5.06, a valid norm for the SAAS score with standard deviation 2.78. This norm can be used for interpreting score of the students from grade VIII to grade XII. As grade increases, the difficulty level of the curriculum also increases needing more effort and more time of the students. Thus the stress level will definitely vary according to the grades, lower grade having chances of less stress and higher grade having chances of more stress. Based on this common assumption, the grade wise responses of the subjects were analyzed, which went along with the assumption. The mean SAAS score of the grade VIII was definitely less than the mean SAAS score of grade XII. Similarly, gender also accounted for difference in normal academic stress level across the grades. Male students have more academic related stress than female students form grade IX onwards. This may be because of gender specific expectations of the society where expectations are more from the male. Since the grade wise norms are drawn from the normally distributed data the applicability of these norms to general students’ population is very high.
Norms for SAAS across grades and genders (SDs are given in the parentheses)

<table>
<thead>
<tr>
<th>Grades</th>
<th>Male (N=200)</th>
<th>Female (N=200)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIII</td>
<td>3.80 (3.18)</td>
<td>4.75 (2.66)</td>
</tr>
<tr>
<td>IX</td>
<td>5.12 (3.04)</td>
<td>4.86 (2.17)</td>
</tr>
<tr>
<td>X</td>
<td>5.75 (2.08)</td>
<td>5.03 (3.02)</td>
</tr>
<tr>
<td>XI</td>
<td>5.52 (2.35)</td>
<td>4.96 (2.76)</td>
</tr>
<tr>
<td>XII</td>
<td>5.63 (2.01)</td>
<td>4.85 (1.96)</td>
</tr>
</tbody>
</table>

Reliability

The test-retest reliability of SAAS over the period of one month is 0.88 and split half reliability is 0.75 indicating adequate reliability of the scale (Table-1). Internal consistency of the scale is also adequate being in the range of 0.30 and 0.81.

Reliability coefficients of SAAS

<table>
<thead>
<tr>
<th>Types of Reliability</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test-retest reliability (one month interval)</td>
<td>0.88</td>
</tr>
<tr>
<td>Split half reliability</td>
<td>0.75</td>
</tr>
</tbody>
</table>

Validity

The correlation coefficient of SAAS with Academic Anxiety Scale for Children (AASC) and Beck Depression Inventory (BDI) were found to be 0.54 and 0.43 respectively (Table-2). Its correlation with AASC is statistically significant at 0.05 level, however with BDI it is not statistically significant.
3.5.3 Dimensional Personality Inventory (DPI)

Conceptual Background

This inventory is originally devised by Mahesh Bhargava in Hindi and English languages separately on the basis of observations of behaviour of different age group people but however the philosophy and guidelines of preparing this test is based on the lines of internationally acclaimed personality test – Minnesota Multiphasic Personality Inventory (MMPI) by Hathaway and McKinley (1951) which is still the most researched instrument in the world specially for clinical use and more than 300 measures of personality area in different languages of all over the world are derived from it (Reynolds and Sunberg, 1976). In India, Sen (1966) and Joshi & Malik (1982) developed their personality measures on the lines of MMPI. Sen (1966) has developed his ‘Personality Trait Inventory’ in English language with 120 items representing eight areas and this has been used in a number of researches, notably by Prasad et al. (1974), Rastogi et al. (1976), Verma et al. (1990). However, the Hindi translation of this PTI was made by Mohle (1966) and Verma et al (1990).

With this theoretical background, it was felt necessary to construct a personality measure on the basis of dimensions and items are very much suited to a common person. The test is devised with this uniqueness that it is applicable to normal person aging 14+ to any age limit of either sexes, it is also suitable to neurotics and psychotic patients, women with mensural distress and physically handicapped and disabled in any area of behaviour (Bhargava, 2006). The present inventory is based on the trait theory of Eysenck (1947), who thought that traits constitute the most important parts of personality, which refer to observed consistency of behaviour and action tendencies. General cues to the traits are what the person does, how he does it and how well he does it (Singh, 1998). Several traits together constitute a dimension of personality which helps us in making distinction among persons, considering this assumption, Singh and Singh (2002) have developed ‘Singh’s Differential Personality Inventory’ which measures ten dimensions of personality – decisiveness, responsibility, emotional stability, masculinity, friendliness, hetero-sexuality, ego-strength, curiosity, dominance and self concept. Dhar and Jain (2001) have also devised a personality measures namely type A/B Behavioural...
Pattern Scale (ABBPS) where type A measures factors like tenseness, impatience, restlessness, achievement, easy going, non-assertive, relaxed and patience.

**Description of DPI**

Initially 90 items were prepared for this inventory and they were administered on 100 adults healthy subjects. Item Analysis was done and items showing low internal consistency were deleted. It consists 60 statements in simple (easy to understand even by low literates) Hindi/English. It measures six important personality dimensions – (i) Activity-Passivity, (ii) Enthusiastic–Non Enthusiastic, (iii) Assertive-Submissive, (iv) Suspicious-Trust ing, (v) Depressive-Non Depressive and (vi) Emotional Instability-Emotional Stability. Each personality trait is measured by 10 items through three response alternatives – Yes, Undecided and No. The ‘Yes’ is to be scored as 2, ‘Undecided’ is to be scored as 1, whereas ‘No’ is equal to zero. The total time required for administration is 15 minutes. It is assumed that each of the personality trait is normally distributed. Names of the traits given here are postulated to be located to the right end of the normal curve and opposites of the names are located towards left end of the curve. The areas of Dimensional Personality Inventory are described as below –

i. **Activity-Passivity Trait** – The person is active, energetic, enthusiastic, regular, persistent and busy with ability to concentrate for long duration time, on the one hand and passive, dull, inactive, slow and irregular in working, deviation with constructive output, delayed reactions in work, unwillingness to act on the other hand. Higher score on this dimension shows Activity trait of one’s personality whereas lower score tends the passiveness of an individual.

ii. **Enthusiastic and Non Enthusiastic Trait** - It indicates the tendency to be happy go lucky, warm hearted person, enjoying life, fond of being in company of others, social and outgoing, mixing easily in the company of others, witty, loves enthusiastic and courageous work, open hearted, ability to move persons for various functions. This is indicated by the cyclothymiacs temperament and higher score indicates the greater tendency. On the other hand, lower score indicates non-enthusiastic trend by expressing reservedness, shyness, inhibited, cold, keeping aloof, feeling difficulty to
contact other people, slow spoken, non-participation of various functions and also known as schizothymic personality.

iii. **Assertive-Submissive Trait** - It indicates the assertiveness of an individual as a person is straight forward in all dealing of life, bold, having traits of leadership, likes to act as a main role player, independent nature, non-convincing with other’s ideas, dominant. Whereas submissiveness keeps his ideas to himself only, not dare to open his mouth, fearful to meet and exchange views with others, accept subordination and act as others say, hesitant to oppose other’s views. High score indicates the assertiveness trait of personality, whereas low score is near to submissiveness dimension.

iv. **Suspicious-Trust ing Trait** - High scores shows the paranoid tendency of the individual which is reflected in his suspicious nature about others, apprehensive, having no faith on others, blaming others for his all failures and non-achievement, feeling misconception of people about himself and feels that others are jealous of him and want to harm him, whereas low score tends to trusting trait of personality which do not have any such paranoid tendencies. This positive dimension of personality is characterized by free of jealous tendencies, accepting conditions, easy to get on with others, adaptable, cheerful, uncompetitive, a good team worker, an open and tolerant person and usually willing to take a chance with people, realizing own weaknesses and faults.

v. **Depressive-Non-Depressive Trait** - High score on this personality trait indicates feeling of helplessness, hopelessness, worthlessness, depressed, unwanted, unloved, suicidal ideas, feeling of inferiority, highly frustrated, lack of self confidence, sad on misleads done in the past, jealous about other’s happiness, restlessness and full of tense. Whereas low score tends to non-depressive characterized by relaxedness, unfrustrated, composed and satisfied.

vi. **Emotional Instability and Emotional Stability Trait** - The high score on this personality trait indicates emotional instability where individual is affected by feelings, emotionally less stable, easily annoyed and upset having low frustration tolerance for unsatisfactory conditions, highly anxious and worrying, fearful,
sensitive, touchy, given to mood swings, depressed and sad whenever confronted with stressful situations, having neurotic symptoms like phobias, sleep disturbances and psychotic disorders. The low score is indicative of emotionally stable trait of the personality where person is with full control over his emotional expressions, emotionally mature, stable, realistic about life situations, possessing ego strength, high level of adjustment with unsolved emotional problems.

**Administration**

This test may be administered on all individuals regardless to sex above the age of 14 years. It can be used individually as self administration as well as in group also. It can also be used by the Test Administrator by taking verbal response alternative on those who cannot read and so depleted by illness.

**Scoring**

Each yes response is to be scored as 2, undecided is to be scored as 1 whereas no and unmarked responses is to be scored as zero. All the six dimensional areas of personality are grouped as Part I, II,III, IV, V and VI, each containing 10 statements. Thus on each area of personality, score may range from 0 to 20 and thus may be calculated area wise and total score of each part may be obtained at that place and then transfer to scoring table below each part against raw scores column.

**Reliability**

The inventory has indicated the satisfactory reliability coefficient when split half method was used on various samples. Here all the reliability coefficients are significant and ensure the high reliability.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Personality Traits</th>
<th>Students Boys</th>
<th>Students Girls</th>
<th>Narcotic Drug Abusers</th>
<th>Psychiatric Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>Activity-Passivity</td>
<td>.56</td>
<td>.57</td>
<td>.47</td>
<td>.39</td>
</tr>
<tr>
<td>II</td>
<td>Enthusiastic and Non Enthusiastic</td>
<td>.62</td>
<td>.61</td>
<td>.52</td>
<td>.47</td>
</tr>
<tr>
<td></td>
<td>Assertive-Submissive</td>
<td>Suspicious-Trust</td>
<td>Depressive-Non-Depressive</td>
<td>Emotional Instability and Emotional Stability</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>----------------------</td>
<td>-----------------</td>
<td>---------------------------</td>
<td>---------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>.57</td>
<td>.75</td>
<td>.68</td>
<td>.78</td>
<td></td>
</tr>
<tr>
<td>IV</td>
<td>.52</td>
<td>.76</td>
<td>.68</td>
<td>.72</td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>.57</td>
<td>.44</td>
<td>.49</td>
<td>.56</td>
<td></td>
</tr>
<tr>
<td>VI</td>
<td>.52</td>
<td>.47</td>
<td>.58</td>
<td>.63</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total No. (N)= 50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td></td>
</tr>
</tbody>
</table>

All the rtt are significant at .01 level

**Validity**

In order to establish the validity of Dimensional Personality Inventory (DPI), the present inventory is correlated with other measures of personality and allied concepts as external criteria-

i. When different personality traits of DPI are correlated with the same personality traits of original English Version of Sen’s (1966) Personality Trait Inventory (PTI) on six factors out of eight. On a group of 80 subjects, the coefficients of correlations (r) have been obtained in Table 1 and all are highly significant at .01 level.

ii. When this inventory was correlated on a sample of 80 students of undergraduate classes with the most appropriate 6 dimensions of Kapoor’s (1970) Hindi Version of 16 PF Questionnaire Form A the coefficient of correlations were obtained and all are found significant at .01 level, thus ensures a satisfactory validity.

Coefficients of Correlations between six personality traits of Dimensional Personality Inventory (DPI) and Sen’s original Personality Trait Inventory
<table>
<thead>
<tr>
<th>S. No.</th>
<th>DPI Personality Traits</th>
<th>Coefficient of Correlation (r)</th>
<th>Sen’s PTI Personality areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Activity-Passivity</td>
<td>.74</td>
<td>Activity</td>
</tr>
<tr>
<td>II</td>
<td>Enthusiastic and Non Enthusiastic</td>
<td>.69</td>
<td>Cyclothymia</td>
</tr>
<tr>
<td>III</td>
<td>Assertive-Submissive</td>
<td>.79</td>
<td>Dominance</td>
</tr>
<tr>
<td>IV</td>
<td>Suspicious-Trusting</td>
<td>.82</td>
<td>Paranoid tendency</td>
</tr>
<tr>
<td>V</td>
<td>Depressive-Non-Depressive</td>
<td>.66</td>
<td>Depressive tendency</td>
</tr>
<tr>
<td>VI</td>
<td>Emotional Instability and Emotional Stability</td>
<td>.84</td>
<td>Emotional instability</td>
</tr>
</tbody>
</table>

Coefficients of Correlations between six personality traits of Dimensional Personality Inventory (DPI) and six possible factors of 16 PF

<table>
<thead>
<tr>
<th>S.No.</th>
<th>DPI Personality Traits</th>
<th>Coefficient of Correlation (r)</th>
<th>16 PF Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Activity-Passivity</td>
<td>.68</td>
<td>Group Oriented-Self Sufficient Factor Q2</td>
</tr>
<tr>
<td>II</td>
<td>Enthusiastic and Non Enthusiastic</td>
<td>-.74</td>
<td>Reserved-Outgoing Factor A</td>
</tr>
<tr>
<td>III</td>
<td>Assertive-Submissive</td>
<td>-.79</td>
<td>Submissiveness-Dominance Factor E</td>
</tr>
<tr>
<td>IV</td>
<td>Suspicious-Trusting</td>
<td>-.85</td>
<td>Trusting-Suspicious Factor L</td>
</tr>
<tr>
<td>V</td>
<td>Depressive-Non-Depressive</td>
<td>-.68</td>
<td>Relaxed-Tense Factor Q4</td>
</tr>
<tr>
<td>VI</td>
<td>Emotional Instability and Emotional Stability</td>
<td>.88</td>
<td>Affected by Feeling-Emotional Stability Factor C</td>
</tr>
</tbody>
</table>
3.5.4 Home Environment Inventory (HEI)

Conceptual Background

Human beings are always immersed in a social environment which not only changes the very structure of the individual or just compels him to recognise facts but also provides him with a readymade system of signs. It imposes on him a series of obligations. Two environments namely, home and school environments, share an influential space in child’s life. Family is the social-biological unit that exerts the greatest influence on the development and perpetuation of the individual’s behaviour. The psychological atmosphere of a home may fall into any of the four quadrants, each of which represents one of the four general combinations: acceptance-autonomy, acceptance-control, rejection-autonomy and rejection-control (Johnson & Medinnus, 1969). Grebow (1973) reported that ‘nurturance–affection’ and ‘achievement expectations, demands and standards’ constitute the two dimensions of parental behaviour that have been regarded as important by previous researchers. Various researchers have identified the following characteristics of home environment or parental child rearing practices permissiveness, willingness to devote time to the child, parental guidance, parental aspiration for achievement, provisions for the child’s intellectual needs, affective reward, instrumental companionship, prescription, physical punishment, principled discipline, neglect, deprivation of privileges, protectiveness, power, achievement demands, indulgence, conformity, independence, dependence, emotional and verbal responsivity, involvement with the child, physical and temporal environment, avoidance of restriction and punishment, provision of appropriate play materials etc. there exist a great overlapping in the kinds of behaviours which are in association with different characteristics.

Description of HEI

The present Home Environment Inventory (HEI) is an instrument designed to measure the psycho-social climate of 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. HEI has 100 items belonging to ten dimensions of Home Environment.
Scoring

The responses are to be given on the booklet itself. There are five cells against every item of the inventory. Each cell indicates the frequency of occurrence of a particular behaviour. The five cells belong to five responses namely, ‘mostly’, ‘often’, ‘sometimes’, ‘least’ and ‘never’. The dimension to which a particular item belongs has been indicated by alphabets near the serial number of the items. Assign 4 marks to ‘mostly’, 3 marks to ‘often’, 2 marks to ‘sometimes’, 1 mark to ‘least’ and 0 mark to ‘never’ responses. Count the marks assigned to A, B, C, D, E, F, G, H, I and J dimension-statements on every page and then add the dimensions scores awarded to statements given on the five pages so as to get ten scores for the ten dimensions of HEI.

Administration of the Inventory

Home Environment Inventory can be administered in individual or group settings. To start with, students should be made familiar with the nature and purpose of measurement of home environment. Later, the procedure for marking the responses on the booklet should be explained to them. They should be asked to put ‘x’ mark on any cell indicating their perception of the frequency with which a particular behaviour has been exhibited by their parents.

Students should feel assured about the confidential nature of their responses. At the time of administration in group setting, the space between individuals should be adequate so that other student may not guess about the response made by another student against a particular item. Students should be allowed to omit items which they find difficult or impossible to respond. This should be treated as a symbol of individual’s tendency to give socially desirable responses. For research purposes, the scores of such students should not be used unless interviewing or any other technique is used to ensure the validity of their responses.

Reliability

The ‘Home Environment Inventory’ was administered to 113 students (54 boys and 59 girls) studying in intermediate classes of five schools. Split half reliabilities were worked out separately for all the ten dimensions of home environment. The split-half
reliabilities (corrected for length) for various dimensions of home environment are as follows:

Split half reliability coefficients for ten dimensions of Home Environment as measured by HEI

<table>
<thead>
<tr>
<th>Inventory Dimension</th>
<th>Reliability Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Control</td>
<td>.879</td>
</tr>
<tr>
<td>B Protectiveness</td>
<td>.748</td>
</tr>
<tr>
<td>C Punishment</td>
<td>.947</td>
</tr>
<tr>
<td>D Conformity</td>
<td>.866</td>
</tr>
<tr>
<td>E Social Isolation</td>
<td>.870</td>
</tr>
<tr>
<td>F Reward</td>
<td>.875</td>
</tr>
<tr>
<td>G Deprivation of Privileges</td>
<td>.855</td>
</tr>
<tr>
<td>H Nurturance</td>
<td>.901</td>
</tr>
<tr>
<td>I Rejection</td>
<td>.841</td>
</tr>
<tr>
<td>J Permissiveness</td>
<td>.726</td>
</tr>
</tbody>
</table>

Validity

Home Environment Inventory has been found to possess content validity as measured with the help of views expressed by judges criterion related validity could not be established because of the lack of appropriate external criteria.

3.6 Statistical Techniques Used

The following statistical techniques were used for analyzing the data:

1. Mean, Standard Deviation and ‘t’ test.
2. Pearson’s Product Moment Coefficient of Correlation.
3. Stepwise Multiple Regression.

SPSS for windows was the statistical software program used to perform all procedures. The obtained results were tabulated for analysis, interpretation and discussion of results vis-à-vis findings of other researchers in the subsequent chapter.

3.7 Delimitations of the Study

1. Sample of the study was confined to the senior secondary schools of Faridabad district.

2. The study was restricted to only these variables i.e. Academic Stress, Coping Strategies, Personality and Home Environment.

3. Only 400 students of XI and XII grades were considered for the study.

4. The study was delimited to the following tools:

   ➢ Scale for Assessing Academic Stress (SAAS) by Uday K. Sinha, Vibha Sharma & Mahendra K. (2001)
   ➢ Ways of Coping Questionnaire by Folkman & Lazarus (Hindi version-2008 adapted by Dr. Anirudh, Dept. of Psychology, MDU, Rohtak)
   ➢ Dimensional Personality Inventory by Mahesh Bhargava (2006)
   ➢ Home Environment inventory by Dr. Karuna Shankar Mishra (1989)