The present study has been conducted to make an empirical verification of the Attentional Theory of Test Anxiety in Indian setting. The viability of the Attentional Theory has been also tested by employing Attentional Skills Training (AST) as a short-term cognitive coping strategy to lower the state-worry, improve performance, lower task-generated interference (TGI) and increase percentage of time spent on task (PTT) of the highly anxious boys and girls performing under evaluative stress.

The major goals of this chapter are to clarify:

(i) the design of the study; (ii) instruments used;
(iii) sample selection; (iv) performance tasks (v) procedure and (vi) statistical techniques applied to analyze the data.

4.1 Experimental Design

A 2 x 2 x 2 (TA x AST x ES) factorial design was used. This is illustrated in Table 4.1. The independent variables of this study are:

(a) \( TA(A) \) denotes Test Anxiety Levels (High, \( A_1 \) and low \( A_2 \))
(b) \( AST(T) \) denotes Attentional Skills Training (No-AST \( T_1 \) and AST \( T_2 \)). This has been modelled after the
cognitive coping mechanisms of Meichenbaum (1972) and attentional training procedure of Wine (1971 a).

(i) AST (T_2) involves training making the test-anxious subjects aware of the irrational and task-irrelevant self-verbalizations during tests, which diverts their attention from the task thus leading to performance decrement, and to change these negative self-instructions into positive coping self-instructions by applicational training.

(ii) No-AST (T_1) denotes No Attentional Skills Training
The experimenter (E) engaged the No-AST group in talk about city life, in other words events unrelated even remotely to test situations.

(c) ES (B) denotes Stress conditions (Ego stress B_1 and Control B_2).

Ego Stress or ego-involving conditions were adopted from Sarason's (1961, 1972, 1973) ego-involving instructions
Control Instructions were similar in nature and content as the standard instructions written on top of the performance tasks.

The effects of Test Anxiety (TA) Attentional Skills Training (AST) and Ego Stress conditions (ES) on the following dependent variables have been studied:
(i) Change Scores;
(ii) Performance measures; and
(iii) Post Task Self-ratings

(i) Change Scores: A 24 item Present Affect Reaction Questionnaire (PARQ) was given to the subjects (Boys and Girls) at two different periods of time, i.e. pre-treatment and post-treatment, to assess changes in their worry state, and emotionality-state measure scores. Analysis of Covariance, 2 x 2 x 2 design, has been employed to study the changes in the repeated measures of the PARQ as has been suggested by Cronbach and Furby (1970), with pre-treatment scores covaried against post-treatment scores. This has been done because the groups are not and cannot be matched in their pre-treatment state scores, and in order to match them Analysis of Covariance has been employed. Separate analyses have been made for boys and girls.

(ii) Performance Measures: Two performance tasks of moderate difficulty were constructed; Performance Task A Arithmetic Reasoning (AR - Test) and Performance Task B, Anagram Solution Task. Arithmetic Reasoning Test is a multiple choice type of test and Anagram Solution is a mixture of different jumbled-up words. These two tests have been administered in a counter-balanced order.
(iii) **Post Task Self-ratings:** Scores were obtained for:

(i) Task-Generated Interference, and

(ii) Percentage of Time Spent on Task.

These scores were obtained after the completion of performance tasks.

**Control**

The educational level, socio-economic status, instructions, age of the subject, sex of the subject, sex of the experimenter and the city of residence of subjects were controlled. Besides this the duration of the intervention and city-life talk were also controlled. Noise, light, seating arrangements were also controlled. All the subjects in the present study were volunteers and from a non-clinical population. Each subject was experimented upon individually by the same experimenter.

Certain Methodological controls (Allen, Elias & Zlotlow, 1980) were also taken into consideration; (a) all the subjects were randomly assigned to the experimental conditions in order to cancel out potential artifactual biases that might systematically affect outcome, (b) a no-treatment control group composed of randomly-selected subjects was also included in order to demonstrate the effectiveness of Attentional Skills Training, (c) as test anxiety is a complex net-work of
relationships between subjective distress, behaviour avoidance, etc. Its adequate assessment necessitates multiple methods of measurement. In the present study multiple methods of measurement were included in the forms of process measures and performance measures, (d) efforts were made to 'residualize' the change scores in order to statistically control the pre-existing between group differences and regression effects.

Finally, powerful multiple statistical procedures were also used.

4.2 Instruments and Material:

(i) Hindi Version of Test Anxiety Inventory (TAI) Sharma, Sud and Spielberger (1983) (Appendix-I).

The 20-item Test Anxiety Inventory standardized by Spielberger et al. (1978) has been developed in Hindi by Sharma, Sud and Spielberger (1983) on a sample of bilingual high school boys and girls. This inventory has been designed to assess individual differences in anxiety proneness in test situations, and has subscales for measuring the Worry and Emotionality components of test anxiety.

The cross-language equivalence of the scale has been amply demonstrated in terms of high correlations (.81 with the English version of the TAI) comparable means and standard
deviations, measures of internal consistency, etc. The high alpha co-efficient (.89 and .83) for high school boys and girls provides evidence of the internal consistency of the Hindi TAI. Further evidence of its internal consistency is provided by its item-remainder correlations. Most of the item remainder correlations were .40 and higher and all of them were statistically significant providing strong evidence of its internal consistency. This version also correlates highly with Sarason's (1972) TAS, (.85 for girls and .69 for boys); with A-state (STAI), the correlations are (.61 for girls and .45 for boys). These correlations give a strong evidence of high concurrent validity of the Hindi TAI. Additional evidence by Jutshi (1983) supports the equivalence of the Hindi and English TAI, on a larger and different sample of high school and college boys and girls. As a result of factor analysis, clear-cut worry and emotionality factors were identified in all the four sub-groups on both Hindi and English TAI. The factor loadings of the Hindi TAI are similar in strength to those reported in the English TAI. (Spielberger, et al, 1978).

**Scoring of the TAI**

The range of scores for this instrument varies from a minimum score of 20 to a maximum score of 80. The subjects are required to answer each item by rating themselves on a four point rating scale. In the 'TAI' scale, item number-1, is worded in
such a manner that a rating of '4' indicates low anxiety, whereas for all other items the rating of '4' indicates high anxiety. In such a case the scoring weight is reversed, the weight scores of responses marked 1, 2, 3 and 4 for the reversed items are 4, 3, 2 and 1 respectively.

The scoring is done for the TAI by simply adding up all the encircled numbers for the subject and by taking item No. 1 into consideration as explained above.

(ii) The Present Affect Reactions Questionnaire (Endler, 1980)
(Appendix 2)

The Present Affect Reactions Questionnaire (PARQ) consists of 10 cognitive worry (W), 10 autonomic emotional (E) and 4 buffer items (Endler, 1980). The PARQ is a measure of state anxiety and the 24-item self-report questionnaire asks the subject to respond according to how he feels 'at this moment'. The subject rates the intensity of his reaction on a 5-point rating scale. The positively stated items are scored in the reverse direction to indicate the presence of state anxiety. The PARQ provides separate state anxiety scores on W-state and E-state.

Endler (1983, Table 2, p. 189) has summarized the information on co-efficient Alpha reliabilities of the PARQ for the total scale. In seven studies the Alpha Co-efficients
The co-relations between W and E subscales varied between .65 and .77. Recently, Endler (1984) has provided additional evidence of normative data on the PARQ on samples of public high school males and females, university male and female students, and the male and female clients of addiction treatment facility. As in earlier studies, the co-efficient Alpha reliabilities ranged from .84 to .92. The inter-correlations between the W and E subscales of the PARQ varied between .58 and .70 on these three samples. The sensitivity of the PARQ to increased situation stress has also been demonstrated in an experiment which is an important validity check (Endler, 1984).

So far the PARQ has been used at the York University to test the predictions of the multi-dimensional Interaction Model of Anxiety (Endler, 1980) which, besides others, assumes that in order for a person (facet of A-trait) by situation (stress condition) interaction to be effective in producing A-state changes, it is necessary for the threatening situation to be congruent with the facet of A-trait being investigated. The PARQ has been used in two studies in high school and college students involving examination stress with outcome supporting the interaction Model of Anxiety (Endler, King, Kuczynski & Edwards, 1980; Philips & Endler, 1982). The other studies in which PARQ has been used to assess A-state changes include those by Ackerman & Endler (1982), Endler, King & Herring (1982);
Endler, Edwards & Kowalchuck (1982), Kowalchuck and Endler (1982), and recently Sud, A (1984), in Indian Setting on high school girls. All these studies, provide evidence on the construct validity of the PARQ.

In order to assess the treatment related changes on Worry-state and Emotionality-state in the present study, the Hindi version of the PARQ was developed following procedures that have proved useful in the development of the Hindi editions of the STA I (Spielberger, Sharma & Singh, 1973; Spielberger & Sharma, 1976) and TAI (Sharma, Sud & Spielberger, 1983).

Scoring of the PARQ

The scoring is done by simply adding the numbers encircled by the subject on a five-point rating scale. Scores of State-Worry and State-Emotionality items are added separately.

(iii) Post-Task Questionnaire (Deffenbacher, 1978) (Appendix 3)

The Post Task Questionnaire (PTQ) has been constructed by Deffenbacher (1978) by adapting a number of items from Alpert and Haber's Achievement Anxiety test (AAT) and Sarason's Test Anxiety scale (TAS), while some items were constructed by Deffenbacher himself.

The Hindi version of this questionnaire developed by Sud, S
(1983) asks the subject to indicate the extent of certain thoughts, feelings, behaviors during testing by circling a number on a rating scale.

This questionnaire also used by Sud, A. (1984) includes measures of anxiety level during testing, feelings about self, feelings about ability, pleasantness of task, anxiety interference, self-reported worry, self-reported emotionality, task-generated interference and percentage of time spent on task.

Of all these items only task-generated interference and percentage of time spent on task have been used in the present study.

**Scoring of the Post Task Questionnaire**

Of the two items selected the scoring is as follows:

Task-Generated Interference (TGI) is rated on a '10-point' scale with '0' representing 'never', 'not at all', 'I did not think about it during the test' and '10' representing 'always' 'constantly'. Scoring was done by totalling the encircled scores of the five TGI questions for each subject.

The second item percentage of Time Spent on Task (PTT) asks subjects to encircle a percent score from '0%' to '100%' estimating the percentage of time they had actually spent working on the task opposed to thinking about or doing other.
things. Scoring represents that the higher the percent score circled, the more the estimated time spent on the task by the subject.

(iv) **Experimental stress Manipulation** (Appendix-4)

This was manipulated by way of two different types of instructions given to the subjects.

(a) Ego Stress Instructions and;

(b) Control Instructions.

a) Ego Stress (Evaluative or ego-involving instructions) were adopted from Sarason's (1961, 1972, 1973) ego-involving instructions.

The English version of these ego stress instructions were administered verbally to the subjects and stressed the intelligence testing and time limited nature of the task, i.e. repeated emphasis by the Experimenter that time is short and is running out and that the task should be completed. Also emphasis by the experimenter that other students the subjects' age are capable of finishing faster and doing better.

b) Control Instructions were similar in nature and content to the standard instructions given to all subjects before the performance tests.
(v) Hindi version of the Hundal General Mental Ability Test (GMAT) (Singh, 1967) (Appendix-5)

This test was originally constructed for Punjabi speaking school children; it was developed in Hindi by Singh (1967).

This test consists of 100-items representing a wide range of activities commonly referred to as the assessment of general mental ability. The reliability and validity of the General Mental Ability Test (GMAT) has also been established. The Hindi version of the Hundal GMAT was administered to students of VII, IX and XI class group, split half reliability ranges between .88 and .85 for the three classes and retest reliability for class IX is .71. Product Moment Correlations of .59 and .69 indicates a high relationship between test scores and success in the examination. Moreover, the content validity of the test is also regarded as satisfactory.

Scoring of the Hundal GMAT

This test was scored with the help of a specially prepared key. On this key the correct answers were printed on the left hand side of the respective item numbers. Before beginning the scoring, it was made sure that the page numbers and item numbers corresponded to those appearing on the key. The incorrect responses on all the pages were marked with a coloured pencil.
If any item had two or more choices marked, it was treated as a wrongly attempted item. The score on this test is the total number of correct responses made by the subject.

(vi) **Attentional Skills Training (AST)** (Appendix-6)

Attentional Skills Training (AST) has been modelled after the cognitive coping mechanism of Meichenbachum's (1972) and Wine's (1971 a) Attentional Training program. In this strategy, test anxiety has been described in terms of: a) **Worry** i.e. the tendency to emit irrational, task irrelevant self-verbalizations during tests which diverts attention from the task and thus lowers performance and b) **Emotionality** i.e., heightened physiological arousal pertaining to feelings of upset stomach, increased heart beat, sweaty palms etc. This program is aimed at training in becoming aware of changing these non-functioning patterns. The subject is helped to learn to identify (a) irrational ruminations (Ellis, 1962), e.g. pre-occupation with possible failure and catastrophizing about it; (b) inefficient/inappropriate test preparation/test taking strategies, i.e. inability to leave an unsolved problem and go to the next; and (b) negative self-evaluation and punishment, e.g., labelling one's self stupid and worthless for making a mistake. Once this non-functional self instructions pattern is identified, the therapist gives appropriate task-oriented self-instructions to
subject and how these can help convert the self-defeating cognitive patterns into task appropriate ones. These self-instructions include:

(a) counters for irrational ruminations, (b) plans for approaching the task, (c) coping self-statements against frustrating and possible failure, and (d) self rewarding statement for task oriented behaviours.

After having given this training to the subjects, they were given a practice test, in this study it was the Bhatia's Square Problem, and were asked to solve it within five minutes and hence make use of all the cues taught. The Hindi version of Attentional Skills Training (AST) programme has been developed by Sud,A (1984) and used in her (1984) doctoral study conducted on high school girls.

(vii) No Attentional Skills Training Group

In this case, the instructions were unrelated to the test situation. The experimenter talked of city life and other general activities with this group for a period of 40 minutes. The experimenter and the subject were engaged in this general talk in a completely relaxed manner and made no references to the test situation or other stress creating events. (The procedure of this rapport is given in Appendix-7).
4.3 Sample

(i) Preliminary Sample

A random sample of 820 pupils (416 boys and 404 girls) of the ninth class, their ages ranging between 13 years and 15 years, of high socio-economic status and studying the same syllabi in Public Schools in Delhi, were administered the Hindi version of the 20-item test Anxiety inventory (Hindi TAI: Sharma, Sud and Spielberger, 1983), in small groups of 15 subjects each. The total mean Test Anxiety score of the 820 pupils was 48.85 and the corresponding standard deviation value 9.98.

The criteria of selection of subjects (boys and girls) for the final sample was adjudged to be Mean ± 1 SD of the TAI scores. The subjects were classified as high and low test-anxious in terms of mean ± 1 SD (58.83) and Mean - 1 SD (38.87) on their TAI scores. Thus a group of 120 pupils (60 boys and 60 girls) having scored 58 or above on the TAI were classified as the high test anxious and similarly a group of 120 pupils (60 boys and 60 girls) having scored 38 or below were classified as the low test anxious.

(ii) Final samples

A total of 240 students (120 boys and 120 girls) were selected as the final sample. Separate analyses have been made for the 120 boys (60 high and 60 low test anxious) and 120 girls
(60 high and 60 low test anxious) on whom the study has been conducted.

After thus being delineated as the high and low test-anxious i.e., 60 subjects each, in order to meet the requirements of a 2 x 2 x 2 (TA X AST XES) between groups factorial design, the subjects were randomly assigned to either of the two treatment conditions (AST and No-AST) and to either of the two stress conditions (ego stress and control) with 15 subjects in each sub-group. There was absolute randomization in the assignment of subjects to each sub-group. This resulted in 8 sub-groups of 15 subjects each for boys and 8 sub-groups of 15 subjects each for girls. The groups are:

(i) HAES - AST
(ii) HAC - AST
(iii) LAES - AST
(iv) LAC - AST
(v) HAES - No AST
(vi) HAC - No AST
(vii) LAES - No AST
(viii) LAC - No AST

Before beginning the actual experiment the means for all the eight sub-groups for both boys and girls were computed.
Specifically, the HA groups regardless of AST and ES had similar means and similarly the LA groups regardless of AST and ES had similar means, in terms of their test anxiety levels. The means are given in Table 4.2.

Table 4.2
Means of sub-groups in terms of Test Anxiety, Attentional Skills Training and Ego Stress conditions for boys and girls.

<table>
<thead>
<tr>
<th></th>
<th>BOYS</th>
<th>GIRLS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AST</td>
<td>NO-AST</td>
</tr>
<tr>
<td>HAES</td>
<td>37.45</td>
<td>HAES 37.96</td>
</tr>
<tr>
<td>HAC</td>
<td>38.01</td>
<td>HAC 37.85</td>
</tr>
<tr>
<td>LAES</td>
<td>28.53</td>
<td>LAES 29.00</td>
</tr>
<tr>
<td>LAC</td>
<td>28.91</td>
<td>LAC 28.35</td>
</tr>
</tbody>
</table>

AST - Attentional Skills Training.
No-AST - No Attentional Skills Training.
4.4 Performance Tasks of Moderate Difficulty

(a) Arithmetic Reasoning Test (AR Test) (Appendix-8)

This task has been constructed in English and has 12-items on the whole. These items are of multiple choice in nature and have been constructed for students of the 9th class between the age group of 13 and 15 years.

This test is labelled as 'Moderately difficult in content, because it has been constructed after following a definite procedure.

For the construction of the test, a total number of 100-items were chosen, all pertaining to 'Arithmetic Reasoning' selected from general books and syllabi meant for the age group of 13 to 15 years of boys and girls studying in the 9th standard of English medium schools in Shimla. These 100 questions were given to be solved within 60 minutes to a randomly selected sample of 100 students (50 boys and 50 girls), of the 9th class.

Prior to the solving of these questions, the students had been administered the Hundal's General Mental Ability Test (GMAT) in order to ascertain the intelligence level of each subject.

After the subject had solved both the GMAT and the 100 multiple choice questions on Arithmetic reasoning, 12 items were finally selected following the pattern given below:
(i) 6 items are those which have been solved by 75% of those pupils who are moderately intelligent, i.e. all those students who have scored between 46 and 54 in the Hundal's General Mental Ability Test.

(ii) 3 items are those which have been solved 75% of those pupils who are highly intelligent, i.e. all those students who have scored 55 and above in the Hundal's General Mental Ability Test.

(iii) 3 items are those which have been solved by 75% of those pupils who are low in intelligence levels, i.e. all those students who have scored 45 and below on the Hundal's General Mental Ability Test.

These 12 questions have been randomly distributed on three pages with a total stipulated time of 6 minutes (30 seconds for each question) to solve the test. The test has standard written instructions on the first page, and a few examples of the test questions are given in order to make the students familiar with the actual content of the test. The test begins from the next page with the time limit stressed on the top of the page. The subject can only turn the page and begin the test after being asked to do so by the Experimenter.

Care has been taken not to include more than two difficult, or two easy, items of the test on one single page.
Scoring of the AR Test

The total number of correct responses are added to represent the score for each pupil. Any item answered correctly is given the score of '1' and any item answered incorrectly is given the score of '0' (zero).

(b) Anagram Solution Task (Appendix-9)

This test has also been constructed by the investigator and the procedure followed in its construction and standardization is very similar to that followed in the construction and standardization of the 'AR' test. Initially 100 anagrams of three main categories of five, six and seven letter words were constructed after a perusal of 9th class course books of boys and girls studying in public schools in Shimla. These 100 jumbled-up words were arranged randomly in the questionnaire which was given to be solved to a random sample of 100 students (50 boys and 50 girls) studying in the 9th class in public schools in Shimla, who had already been administered the Hundal's General Mental Ability Test (GMAT). The subjects were required to solve these 100 anagrams within 60 minutes.

Finally, a total of 16 anagrams were selected and labelled as moderate difficult, after following the procedure as given below:
(i) 8 anagrams are of those type which have been solved by 75% of the subjects who are moderately intelligent, i.e. all those students who have scored between 46 and 54 in the Hundal's General Mental Ability Test.

(ii) 4 anagrams are of that type which have been solved by 75% of those students who are highly intelligent, i.e., all those students who have scored 55 and above on the Hundal's General Mental Ability Test.

(iii) 4 anagrams of that type which have been solved by 75% of those students who are of low intelligence, i.e., all those students who have scored 45 and below on the Hundal's General Mental Ability Test.

These 16 anagrams have been randomly distributed on four subsequent pages, with four anagrams on one single page, with a total stipulated time of 8 minutes (30 seconds for each anagram) to solve the test.

The test has standard written instructions on the first page along with a few examples of the anagrams, in order to make the students familiar with the actual content of the test.

In order to avoid the subject from establishing a mental set, care has been taken not to include all five, all six or all seven-letter words (anagrams) on any single page. Care has also been taken not to include more than two difficult or two
easy words in one list on one single page. Also both the Arithmetic Reasoning (AR) Test and Anagram Solution Task have no item which was solved by either only the high intelligent or by everybody, thus the tests are not suffering from any ceiling or floor effects (Denny, 1966).

Scoring of the Anagram Solution Task

The total number of words correctly solved are added to represent the score for each subject. Any word solved correctly is given the score of '1' and similarly any word solved incorrectly is given the score of '0' (zero).

4.5 Procedure

The experiment has been performed on 120 boys and 120 girls individually with standard instructions. Before beginning the experiment each subject was seated comfortably, he/she was assured that the information collected would be kept strictly confidential, and would be used for research purposes only.

First of all the subjects were administered the Present Reaction Questionnaire (PARQ) with standard instructions. Following this, half the subjects were exposed to the Attentional Skills Training procedure while the other half to No Attentional Skills Training for 40 minutes each. The subjects were selected
for either treatment strategy (AST or No-AST) as per requirement of the experimental design. After this, the subjects (N = 15 per group) were given either ego stress or control instructions as per requirement of the experimental design. Thereafter, the subjects were again asked to fill up the Present Affect Reaction Questionnaire (PARQ).

The subjects were then administered the two performance tasks of moderate difficulty, the arithmetic reasoning (AR) Test and Anagram Solution Task one after the other in a counterbalanced order i.e. half the subjects were given first the 'AR' Test followed by Anagram Solution Task and for the other half the order was reversed. This was done so as to avoid the subjects from developing a mental set or to balance the carry over effects, if any. Each task had a practice test on the first page, so as to make the subjects familiar with the contents of the task. Each task also had to be completed within a stipulated time limit i.e., six minutes for the Arithmetic Reasoning task and eight minutes for the Anagram Solution task. The scoring was done on the questionnaire itself, each correctly solved item was given the score of '1' and each incorrectly solved item the score of '0'. All the correct scores were added to represent the total score obtained by each subject on each task. After the subjects had
completed both the performance tasks, they were given the post-task questionnaire to fill up, which enabled them to rate their thoughts, feelings about themselves and the task while they were performing it.

The subjects in the no-treatment control group were also treated exactly in the same fashion as the Attentional Skills Training (AST) group, except that during the treatment period, the experimenter and subject (E & S) talked about general day-to-day things, about city life and other events totally unrelated to the test or experimental situation. Furthermore, the PARQ, the evaluative stress instructions (ES or Control) the performance tasks and the post-task questionnaire were administered to them in the same sequence as that of their treated (AST) counterparts.

Both treatment (AST) and no-treatment (No-AST) conditions consisted of 40 minutes sessions each and both were conducted in the environs of the class room, and both were administered by the researcher himself.

4.6 **Statistical Analysis**

The main statistics employed on the three dependent measures of:

(i) Change scores
(ii) Performance Measures, and
(iii) Post Task Self-Ratings to analyze the data are:
1. Analysis of covariance (ANOCOVA)
2. Analysis of Variance (ANOVA) and
3. Newman-Keuls' Multiple-Range Test

(Bruning & Kintz, 1977) for post-hoc between group comparisons.

(i) Change Scores: As recommended by Cronbach & Furby (1970) changes in the repeated measures have been analyzed by analysis of covariance (ANOCOVA), with pre-treatment scores covaried against post-treatment scores for the high and low test-anxious subjects of (a) Worry-State and
(b) Emotionality-State

Since the groups could not be matched on their pre-treatment state scores, the treatment related changes have been analyzed by employing the analysis of co-variance (ANOCOVA). Four 2 x 2 x 2 (TA x AST x ES) ANOCOVAS have been employed with separate analysis made for boys and girls.

The post hoc comparisons among adjusted means have been made by the Newman-Keuls' Multiple-Range Test (Bruning & Kintz, 1977).

(ii) Performance Measures: Four 2 x 2 x 2 (TA x AST x ES) ANOVAS have been performed on each task separately, with separate
analyses made for boys and girls.

Analysis of variance was employed to analyze the data because Attentional Theory makes a series of sequential predictions which could be tested and presented most appropriately by making use of this statistical technique. Additionally ANOVA allows for between and within group comparisons on levels of interference and this is approved of being the most adequate test of Attentional Theory.

Analysis of variance was performed to study the main and interaction effects of Test Anxiety, Attentional Skills Training and Ego Stress on the two performance tasks of moderate difficulty, the 'AR' Test and the Anagram Solution task.

The post hoc between group comparisons were made by the Newman-Keul's Multiple Range Tests (Pearson & Hartley, 1966).

(iii) Post-Task Self-Ratings: Four 2 x 2 x 2 (TA x AST x ES) ANOVAS have been performed on the dependent variables of Task-Generated Interference (TGI) and Percentage of Time Spent on Task (PTT) with separate analysis made for boys and girls.

All post hoc between group comparisons have been made by the Newman-Keuls' Multiple-Range Test (Bruning & Kintz, 1977).