CHAPTER 6
CHAPTER – VI

SUMMARY AND FINDINGS

INTRODUCTION

About 45 years ago, Selye (1956) the “father” of stress theory wrote his first article on the subject; since then, there have been over one lack scientific publications related to stress. Yet, the meaning of stress is still elusive, partly because of the confusion engendered by the incorrect adoption of terms drawn from the discipline of physics. One definition of stress in physics is “an applied force or system of forces that tends to strain or deform a body”. The resultant deformation of the body (or object) is called strain.

The term stress can be defined in various ways. Stress may be an internal state which can be caused by physical demands on the body such as disease, exercise, extremes of temperature, professional hazards and so on by environmental and social situations which are evaluated as potentially harmful, uncontrollable or exceeding our resources for coping (Mattews et. al., 1986).
According to Webster’s New World Dictionary (1973), “stress is the mental or physical tension caused by some urgency or pressure”.

According to Lazarus and Folkman (1984) stress is the feeling you have, you interpret or appraise a situation as being threatening or challenging and when your personal resources are strained or outstripped by your dealing with the situation.

Stress involves a relationship between people and their environment, more specifically between stressors and stress reactions. Stressors are events and situations to which people must react. Stress reactions are the physical, psychological and behavioural responses such as nausea, nervousness and fatigued people display in the face of stressors. Mediating factors, such as the circumstances in which stressors occur and each person’s characteristics, make people more or less sensitive to stressors and to stress responses. Thus stress is not a specific event, a person’s reactions to those events and interactions between the person and the situation are all important components of stress. The interactions are stress mediators; they moderate or intensify the impact of a stressful situation. Even very pleasant events can be stressors. For example, the increased salary and status associated with promotion may be desirable, but the upgrade also requires finding ways of handling new responsibilities and increased pressures. Still the events and situations most likely to be associated
with stress are unpleasant ones those involving frustration, pressure, boredom, trauma, conflict or change (Rowlison and Felner, 1988).

Frustration is the feeling you have when your attempt to reach some goals are blocked. You may not be able to reach a goal because of personal limitations, such as making dumb mistakes on an examination or a goal might slip beyond your grasp because of social or environmental limitations, such as your boss changing your work schedule. No matter, what may be the cause, how you respond and when you respond, but frustration affects your stress level.

Situations leading to pressure on the mind of the individual require a person to do too much in too short a time. For example, if you are trying to fix thanksgiving dinner for twenty people on a day’s notice, or you are struggling to finish the last two questions on an essay test in ten minutes, you are under pressure. Many traffic controllers, physicians, nurses and police officers, administrators, teachers and students face constant or long lasting pressure when they have to make many difficult decisions under heavy time pressure. Likewise, the adolescence is a period which is full of pressure, stress, strain, storm and strife because it is a diversifying stage.

Boredom, or under stimulation, is the opposite of pressure, but it, too can be a stressor, especially if it continues for a long time. The agony of solitary confinement in prison the tedium of a


remote military post or learning a subject which is not interesting are probably the most extreme examples.

Conflict is almost always stressful. The most obvious example are dispute in which friends, family members, or co-workers fight with, insult, or otherwise get nasty with each other. Internal conflicts can be equally, if not more, distressing than those with other people. It is conceivable that male and female studying in urban and rural areas may have different stress level. All these factors may affect their academic achievement, reasoning ability and personality traits.

Review of Related Literature

In the 1960’s and 1970’s, there was great interest in exploring and quantifying the relative degree of stress caused by various life changes. Holmes and Rahe (1967) did pioneer research in this area. They asked 394 people from different demographic groups (groups varied by gender, age, marital status, ethnic group membership and other variables) to assess the stressfulness of various changes. They also studied the effects of potentially disturbing situations, which they called major life events. They reasoned that if we faced a large number of major life events, we would have to make major adjustments and in turn, feel increasing levels of stress.

Since we know that the increased level of stress leads to psychosomatic problems, perhaps facing many life vents would
be associated with increased illness. Holmes and Rahe (1967) and many others did find a modest correlational (0.2 to 0.3) between number of major life events and a subsequent physical or psychological illness.

Sarason (1984) and his colleagues argued that it is not the accumulation of life events but rather our appraisal of events as desirable or undesirable that is important. They found that undesirable life events are more important predictors of developing an illness than the desirable events. These studies tell us that experiencing many major life events, especially undesirable ones may ultimately contributes to our becoming ill.

One other important source turns out to be hassles, which are those small, irritating, frustrating events of every day life. Hassles include getting stuck in traffic, noise, running out of time, looking for a parking spot, having too many things to do, car problems, waiting and so on. Researchers found that the number of hassles we face is a better predictor of our daily mood than are major life events (Eckerrode, 1984).

Cohen and Hoberman (1983) who have studied on stress-mediating factors that might dampen the impact of stressors on the immune system have focused largely on the benefiting of social support. For example, immune system functioning among students who
can get emotional help from friends during stress appears better than among those with less adequate social support.

Farber (1983) studied that physical, psychological and behavioural stress responses sometimes appear together in patterns known as burnout and post traumatic stress disorder. Burnout is a gradually intensifying pattern of physical, psychological and behavioural dysfunction in response to a continuous flow of stressors.

Mason and Blakenship (1987) studied that unemployment, inadequate pay, job dissatisfaction, and other stressors are associated with increased in the rate and severity of domestic violence. Aggression was especially like among those who, as children, saw their own parents’ reaction to stressors with violence towards each other or towards them.

Bharathi (1988) probed role-conflict and personality types as stressors of educated working women and concluded the influence of stress on personality of educated working women of Bangalore City.

Makade (1990) compared normally born and caesarian children (150 each, aged upto 5 years) on responses to environmental stress and found the control group superior as age advanced.

Rai (1996) in his study on 450 students drawn from high and higher secondary schools of Chandigarh concluded that
interactional effect of anxiety and self-concept was found to be significant on the measures of creativity.

Prakash (2000) in his study on 400 children of VII Class studying in the schools of Chandigarh found positive significant relationship between problem solving ability and mathematical achievement and insignificant relationship between anxiety and mathematical achievement.

From above studies it is clear that most of the work on stress and its affects have been done in abroad and this area has remained neglected in this country. Therefore, investigator felt interested in finding the effect of stress locality and sex on certain cognitive and non-cognitive variables.

STATEMENT OF THE PROBLEM

"Effect of Stress, Locality, and Gender on Selected Cognitive and Non-Cognitive Variables."

OBJECTIVES OF THE STUDY

The objectives of the study are down as below:

1. To identify the students having high and normal stress prone behaviour.
2. To study the influence of academic stress, sex, locality and their various interactions separately on reasoning ability, personality traits and academic achievement.
3. To study the influence of self-concept stress, sex, locality and their various interactions separately on reasoning ability, personality traits and academic achievement.

4. To find out the influence of physical stress, sex, locality and their various interactions separately on reasoning ability, personality traits and academic achievement.

5. To find out the influence of social stress, sex, locality and their various interactions separately on reasoning ability, personality traits and academic achievement.

6. To find out the influence of financial stress, sex, locality and their various interactions separately on reasoning ability, personality traits and academic achievement.

7. To find out the influence of family stress, sex, locality and their various interactions separately on reasoning ability, personality traits and academic achievement.

8. To find out the influence of vocational stress, sex, locality and their various interactions separately on reasoning ability, personality traits and academic achievement.

Hypotheses

Hypotheses for the present investigation are laid down as below:
a) There is no significant effect of academic stress, sex, locality and their various interactions on reasoning ability.
b) There is no significant effect of academic stress, sex, locality and their various interactions on personality traits.
c) There is no significant effect of academic stress, sex, locality and their various interactions on academic achievement.

2.

a) There is no significant effect of self-concept stress, sex, locality and their various interactions on reasoning ability.
b) There is no significant effect of self-concept stress, sex, locality and their various interactions on personality traits.
c) There is no significant effect of self-concept stress, sex, locality and their various interactions on academic achievement.

3.

a) There is no significant effect of physical stress, sex, locality and their various interactions on reasoning ability.
b) There is no significant effect of physical stress, sex, locality and their various interactions on personality traits.
c) There is no significant effect of physical stress, sex, locality and their various interactions on academic achievement.

4.

a) There is no significant effect of social stress, sex, locality and their various interactions on reasoning ability.
b) There is no significant effect of social stress, sex, locality and their various interactions on personality traits.

c) There is no significant effect of social stress, sex, locality and their various interactions on academic achievement.

5.

a) There is no significant effect of financial stress, sex, locality and their various interactions on reasoning ability.

b) There is no significant effect of financial stress, sex, locality and their various interactions on personality traits.

c) There is no significant effect of financial stress, sex, locality and their various interactions on academic achievement.

6.

a) There is no significant effect of family stress, sex, locality and their various interactions on reasoning ability.

b) There is no significant effect of family stress, sex, locality and their various interactions on personality traits.

c) There is no significant effect of family stress, sex, locality and their various interactions on academic achievement.

7.

a) There is no significant effect of vocational stress, sex, locality and their various interactions on reasoning ability.

b) There is no significant effect of vocational stress, sex, locality and their various interactions on personality traits.
c) There is no significant effect of vocational stress, sex, locality and their various interactions on academic achievement.

NEED AND JUSTIFICATION OF THE PROBLEM

One of the most challenging problems faced by psychologists, counselors, educational administrators and teachers of to-day seems to be that of accurate prediction of psychological traits of children. This problem has aroused the attention of many psychologists and is assuming greater importance day by day as our society has changed drastically. Industrially and technologically also the pattern of the education and the system of society is growing more and more complex. In view of these factors, it is of vital importance of an educator to understand the dynamics and potentialities of personality traits of present day’s students, specifically the students who are stress-prone, because this can harm the child physically, socially, intellectually and emotionally. It can hamper all types of progress of the child.

It is to be borne in mind that specifically in the existing era of complex society, no person is free from stress and strain and there is no age bar. Even the school going children from pre-primary onwards are under the influence of stress and strain. There are multiple causes of stress viz. biological, psychological and demographic in nature. Once the stress is there, it can spoil and ruin the mental health of the individual. It has a negative impact on both
cognitive and non-cognitive abilities of the child. It causes damage to the personality of the child and by virtue of this child cannot become the useful member of the society.

Healthy parents and healthy teachers are always boon to the society. In the class-room situation the task of the teacher is always challenging and baffling when even one faces the heterogeneous group with multiple diversity in the traits. It is very much true that some students are under active stress and some are normal, some are adjusted, and some are maladjusted. Some are feeling secure and some are insecure, some are emotionally stable others are unstable, some are intelligent, some are average or below average. Likewise there can be many variations in physical, sociological and psychological nature. In such situations it is very important to understand to each and every child and also find out the impact of negative traits and positive traits on the development of the child. If such individuals are not taken care they may lose equilibrium of the self with environment. Simultaneously their remedial measures along with the stress management processes must be suggested; otherwise they may be victims of more ailments of drastic nature. Hence, it is very essential to identify the children possessing stress and also to see the effect of stress on psychological and sociological make-up of the child.
It is imperative that knowledge of the personality traits of different types of students is very much helpful in guiding students in a better way. Besides providing basic material for personal counseling and educational and vocational guidance to individuals, a knowledge of group difference may be useful in providing proper milieu, at home in the learning situations to a particular group in order to improve their healthy personality traits in the area in which they are found deficient. The knowledge of the personality traits of different dichotomies is always helpful to teachers, educational administrators in their sympathetic understanding of the fact that unruly behaviour of the students of certain categories is mainly rooted in their unhealthy personality traits and it needs proper psychological treatment rather than punitive measures.

The preceding discussions give us clear picture that the students whose personality traits are not studied at proper time, become a great source of wastage. Many of the first rate brains among students are allowed to a trophy at all levels of education. Humanity cannot afford to waste this human talent and country’s brain resources. Society cannot afford that the students remain under strain and stress which has dire consequences in development of the individual personalities and on their reasoning ability and academic achievement. Therefore, cognitive and non-cognitive variables in relation to stress
must be studied at all levels so that some concrete remedial measures can be initiated to safeguard the interest of such students.

Keeping the above urgencies in view, the researcher got motivated to study difference in the academic achievements, reasoning ability, personality characteristics adolescents on the basis of stress, gender and locality.

Design of the study

The present study is basically concerned to know the influence of stress-prone behaviour locality and gender on some psychological traits (cognitive and non-cognitive) of the students at high and higher secondary level. For this factorial design is employed. From operational point of view it is a matter of varying the independent variable in order to know the effect of such variable on the dependent variables. The independent variables in the present study are taken as stress, sex and locality. The dependent variables are taken as reasoning ability, personality traits and academic achievement.

Sample

The sample of present study comprises of females and male students (N=769) belonging to both rural and urban localities and studying in Xth class in high/higher secondary schools of Jammu province.

All these schools, from where the data are collected fall in the territorial jurisdiction of Jammu region comprising
of six districts. Since the location of the various schools is geographically and climatically different and some districts are militancy infected, viz. Doda, Poonch and Rajoury. Therefore, these three districts are not included in the study. So the researcher restricted to herself to rake the sample for the present study from three districts of Jammu region viz. Jammu, Kathua and Udhampur on the basis of stratified random technique.

TOOLS

Following tools are used:

3. 16 Personality Factors Questionnaire (Cattell and Eber, Indian Adaptation by Kapoor and Tripathi; 1992).
4. Academic Achievement (For this annual marks of each student of last year are taken into consideration).

STATISTICAL TECHNIQUES USED

1. To identify the adolescents having different levels of stress, the technique of Quartiles (Q1 and Q3) is employed.
2. To find out various significant differences of various groups and to understand the joint effect of various independent variables on the dependent variables, the appropriate statistical technique is Analysis of Variance. Therefore, technique of three way analysis
of variance (3x2x2) is applied keeping in view the objectives and hypotheses laid down in the present study.

FINDINGS

SI (Academic Stress)

1. Only first order interaction B x C is significant at 0.01 level. After comparing the mean scores of different groups under B x C i.e. (sex x areas) interaction, it is found that male rural students have highest academic achievement whereas male urban students have the lowest. Therefore, hypothesis 1 (a) is partially retained.

2. In case of reasoning ability, F-value only for the main effect C i.e. areas is significant at 0.01 level. Other interactions are insignificant, more on reasoning ability test as compared to urban students. Therefore, hypothesis 1 (b) is also partially retained.

3. 
   a) In case of personality factor A (reserved vs. outgoing) main effect A (i.e. academic stress) and one first order interaction C x A i.e. (areas x stress) are significant.
   b) For personality factor C (affected by feelings vs. emotionally stable), main effect A i.e. academic stress is significant at 0.05 level.
   c) For personality factor F (sober vs. happy-go-lucky) only one interaction C x A is significant at 0.05 level.
d) In case of personality factor $G$ (conscientiousness vs. expedient), one main effect stress and one first-order interaction $C \times A$ i.e. (areas x stress) are found to be significant.

e) In case of personality factor $H$ (shy vs. venturesome) only one first order interaction $C \times A$ i.e. (area x stress) is found to be significant at 0.05 level.

f) For personality factor $N$ (forthright vs. shrewd) one first order interaction $C \times A$ i.e. (area x stress) is found to be significant at 0.01 level.

g) For personality factor $O$ [placidness (mature) vs. apprehensiveness (moody)] only one first order interaction $C \times A$ i.e. (areas x stress) is found to be significant at 0.01 level.

h) For personality factor $Q_2$ (dependency vs. self-sufficiency) only one first-order interactions is found to be significant.

i) In case of personality factor $Q_3$ (indisciplined vs. controlled) one main effect i.e. $C$ (areas) and all the three first order interactions, namely $A \times B$ (stress x sex), $B \times C$ (sex x areas) and $C \times A$ (areas x stress) are found to be significant due to their significant F-values.

j) For personality factor $Q_4$ (relaxed vs. tense), one main effect $A$ (i.e. stress) and one first order interaction $C \times A$ (areas x stress) are found to be significant due to their significant F-values at 0.01 level.
Thus, from the results, it is concluded that:

(i) Students with average academic stress are easy going while students with high stress are aloof and cool (PF-A). Urban students with average academic are outgoing, emotionally expressive whereas urban students with high stress are aloof and cool.

(ii) Students with average academic stress are emotionally stable whereas students with high stress are affected by feelings (PF-C).

(iii) Students with high stress are sober whereas students with average stress are happy-go-lucky (PF-F).

(iv) Students with high academic stress are expedient whereas students with average stress are conscientious (PF-G).

(v) Urban students with average academic stress are conscientious whereas urban students with high stress are expedient (PF-G).

(vi) Urban students with high academic stress are shy, whereas urban students with average stress are socially bold (PF-H).

(vii) Urban students with high academic stress are forthright whereas urban students with average stress are clever and shrewd (PF-N).

(viii) Urban or rural students with low or average academic stress are mature, confident whereas urban students with high academic stress are moody and depressed (PF-O).

(ix) Urban and rural students with average academic stress have independent nature whereas urban students with high stress depend on other people (PF-Q2).
(x) Urban students are more disciplined than rural students, male or female with average academic stress are more disciplined; female urban students are more disciplined and urban students with average stress are more disciplined (PF-Q3).

(xi) Students with average academic stress are relaxed whereas students with high stress are tense. Urban students with average or low academic stress are relaxed and satisfied whereas urban students with high stress are tense (PF-Q4).

In the eight of above results, therefore hypothesis 1 (c) is partially retained here.

S2 (Self-Concept Stress)

1. In case of dependent variable of academic achievement, main effect C i.e. area-wise difference is found to be significant at 0.05 level. Also interaction B x C is found to be significant at 0.05 level. Mean scores show that academic achievement of rural students is higher as compared to urban students. Similarly academic achievement of male rural students is higher as compared to their counterparts.

Thus hypothesis 2 (a) that there is no significant effect of self-concept stress locality and their various interactions on academic achievement is partially accepted.
2. Due to significant F-ratio, main effect A i.e. self-concept stress and C i.e. area-wise difference are found to be significant for students with high self-concept stress are possessing reasoning ability higher level of reasoning ability as compared to urban students.

Therefore, hypothesis 2 (b) that there is no significant effect of self-concept interactions on reasoning ability is partially accepted.

3.

(i) Main effect A, B and interactions A x B, B x C, C x A, A x B x C are found to be significant due to significant F-values in case of PF-C (affected by feelings vs emotionally stable). It is found that students with high self-concept stress are emotionally stable. Urban students are emotionally stable. Male students with high self-concept stress are emotionally stable. Male rural students are also emotionally stable. Rural students with high self-concept stress are emotionally stable and male rural students with high self-concept stress are emotionally stable.

(ii) Main effect A, interactions B x C, C x A are found to be significant effecting PF-E (humble vs. assertive). It is observed that students with high self-concept stress are inflexible, unshakable. Male rural students are inflexible students with high self-concept stress are inflexible.
(iii) Main effect A, B interaction A x B, B x C, C x A and A x B x C are found to be significantly effecting the difference in the PF-F (sober vs. happy-go-lucky) due to significant F-ratios. It is revealed that students with high self-concept stress are happy-go-lucky and same is the case of male students with high stress. Male rural students are also happy-go-lucky. Rural students with high self-concept stress are also happy-go-lucky and same is the case of male rural students with high self concept stress.

(iv) In case of PF-G (conscientiousness vs. expediency) interactions B x C and C x A are found to be significant due to significant F-values. It is found that male rural students are conscientious. Similarly rural students with high self-concept stress are conscientious.

(v) Main effect A i.e. stress and interactions A x B, B x C, C x A and A x B x C are found to be significantly effecting PF-H (shy vs venturesome). Students with high self-concept stress are socially bold; male students with high stress are socially bold, male rural students are socially bold; rural students with high self-concept stress are socially bold whereas rural students with low stress are shy. Also male rural students with high stress are socially bold.

(vi) PF-I (tough-minded vs. tender minded) is being affected by main effects A and B and interactions A x B, B x C, C x A, A x B x C due to significant F-values. It is found that students with high stress are tender minded; male students are tender-minded; male students with
high self-concept are tender-minded, rural male students are tender-minded and rural students with high stress are tender-minded. Similarly rural male students are also tender-minded.

(vii) Main effects A and B as well as interactions A x B, B x C, C x A are significantly effecting the PF-L (trusting vs. suspicious). It is observed that students with low stress are cheerful; male or female students with average or low self-concept stress are cheerful; rural females are cheerful; and female rural students with low or average stress are cheerful.

(viii) PF-M (practical vs imaginative bent of mind) is being affected by the main effects A and B and also by interactions A x B, B x C, C x A. A x B x C due to significant F-values. It is found that students with low or average stress are having practical bent of mind; male or females with low or average stress tend to do practical work; rural female students are found to do practical work and same is the case of rural or urban students with low or average stress. Further rural male or females students with low or average stress are found to do practical work.

(ix) As per the results, main effect A and B and also interactions A x B, B x C, C x A, A x B x C are found to be effecting the PF-N (forthright vs. shrewd) due to significant F-values. From the results it appears that students with low or average stress are forthright; females are found to be forthright; males or females with low or
average self-concept stress are forthright whereas rural males are forthright; rural students are forthright and similarly rural females with low or average self-concept stress are found to be forthright.

(x) Main effects A, B and interactions A x B, B x C, C x A and A x B x C are found to be significantly producing difference in the PF-O (placidness-mature vs apprehensiveness-moody) due to significant F-values. In other words when these independent variables combine in different ways, they produce significant difference on PF-O. Based on the results, it is disclosed that students with low or average stress are mature and confident; females are confident; females with low or average stress are confident; rural females or males are mature and confident; rural students with low or average stress are confident. Similarly female rural students with low or average self-concept stress are also found to be mature and confident.

(xi) Main effects A and B and interactions A x B, B x C, C x A and A x B x C are found to be significantly effecting PF-Q1 (conservativeness vs. experimenting nature) due to their significant F-values. Results tell that students with low or average self-concept stress are conservative; females are conservative; male or females with low or average stress are conservative, experimenting nature. Rural and urban females are conservative, whereas rural males or females with low stress are found to be conservative.
(xii) As exhibited by the results, main effect A, B and interactions A x B, B x C, C x A and A x B x C are found to be significantly effecting the PF-Q2 (dependency vs. self-sufficiency). As per the findings students with low or average self-concept stress seek others opinion for their decision and same is the case with females having low stress. Rural females are dependent on others and same is the case of rural students with low stress. Rural male or females with low stress also depend on others for their decisions.

(xiii) In case of PF-Q3 (indiscipline vs. controlled) only one main effect C i.e. area-wise difference is found to be significant at 0.05 level. Thus urban-rural differences make differences in the PF-Q3 of students. When the mean scores are compared, it is found that urban students are more controlled as compared to their counterparts.

(xiv) In case of PF-Q4 (relaxed vs. tense) also only one main effect C i.e. area-wise difference is found to be significant due to significant F-value. It is found that rural students are relaxed and satisfied whereas urban students are tense and restless. Hence, based on the above results, hypothesis 2 (c) that there is no significant effect of self-concept stress, sex, locality and their personality traits is not accepted in the present investigation.

S3 (Physical Stress)

1. Main effect C is found to be significant at 0.01 level. Group wise mean comparison shows that rural students have achieved more as
compared to urban students. One first order interaction B x C i.e. sex x area is also found to be significant. It is found that male rural students achieved more as compared to other groups of students. All other interactions are insignificant.

Therefore hypothesis 3 (a) that there is no significant effect of physical stress, sex, locality and their various interactions on the academic achievement is partially accepted.

2. In case of dependent variable of reasoning ability, only one main affect C i.e. area is found to be significant at 0.01 level. Group-wise mean scores comparison shows that reasoning ability of rural students is higher as compared to urban students.

Therefore, hypothesis 3 (b) that there is no significant effect of physical stress, sex, locality and their various interactions on the reasoning ability is accepted.

3. (i) In case of PF-A (reserved vs outgoing), significant F-value is obtained due to main effect A i.e. physical stress. It is found that students with average and low physical stress are found to be emotionally expressive, adoptable whereas students with high stress are found to be stiff and cool. Similarly main effect C i.e. area is also found to be significant. Group wise comparison shows that urban students are found to be more emotionally expressive as compared to rural students.
(ii) For personality factor F (sober vs happy-go-lucky), significant F-value is obtained for the main effect C i.e. areas. Rural students are found to be sober whereas urban students are found to be happy-go-lucky.

(iii) On PF-G (conscientiousness vs. expediency), main effect A i.e. stress is found to be significant at 0.05 level. It is revealed that students with average or low stress are conscientious whereas students with high physical stress are expedient or pragmatic.

(iv) Main effect C i.e. area is found to be significantly effecting the PF-H (shy vs. venturesome). It is found that rural students are shy whereas urban students are venturesome.

(v) Main effect C i.e. area is found to be significantly effecting the PF-I (tough minded vs tender minded). After comparing the mean scores of urban and rural students, it is observed that rural students are tough-minded whereas urban students are tender minded.

(vi) In case of PF-L (trusting vs. suspicious), only one main effect C i.e. area is found to be effecting significantly and rural students are found to be trusting whereas urban students are found to suspicious.

(vii) Main effect C i.e. area is also found to be significantly effecting the PF-N (forthright vs shrewd). It is revealed that rural students are forthright whereas urban students are shrewd.

(viii) In case of PF-O (placidness vs apprehensiveness) main effect C i.e. area is the only effect which is effecting this factor significantly.
Rural students are found to be matured confident while urban students are apprehensive and moody.

(ix) For the PF-Q1 (conservativeness vs. experimenting nature) main effect C i.e. area is found to be significantly effecting this factor. Rural students are conservativeness whereas urban students have practical bent of mind.

(x) Main effect C i.e. area is also effecting the PF-Q2 (dependency vs self-sufficiency) personality trait of the students significantly. It is observed that rural students are dependent on others for taking their decisions while urban students are self-sufficient.

(xi) Main effect C i.e. area is also effecting significantly PF-Q4 (relaxed vs tense). After comparing the mean scores of urban-rural students, it is revealed that rural students are found to be relaxed whereas urban students are found to be tense.

Based on the above results, therefore, hypothesis 3 (c) that there is no significant effect of physical stress, sex locality and their various interactions on personality traits is partially retained.

S4 (Social Stress)

1. Main effect C i.e. area-wise difference and interaction B x C are found to be significantly effecting the academic achievement of students at 0.01 level. Remaining main effects and interactions are found to be insignificant. It is observed that academic achievement
of rural students is higher as compared to urban students. Also male as well as female rural students achieved higher as compared to their counterparts. Therefore, hypothesis 4 (a) that there is no significant effect of social stress, sex, locality and their various interactions on academic achievement is partially accepted.

2. Main effect A i.e. social stress and C i.e. area-wise difference are found to be significantly effecting the reasoning ability of the students at 0.01 level. Further it is found that students with average and low stress are higher on reasoning ability as compared to students with high social stress. It is also observed that reasoning ability of rural students is higher as compared to urban students.

Thus based on above results, hypothesis 4 (b) that there is no significant effect of social stress, sex, locality and their various interactions on reasoning ability is partially accepted.

3. (i) On the PF-A (reserved vs outgoing), main effect A i.e. social stress and C i.e. area-wise difference are found to be significantly effecting this factor due to significant F-values. It is found that students with high social stress are aloof, whereas students with average or low social stress are outgoing and emotionally expressive. Also rural students are cool and aloof whereas urban students are outgoing.

(ii) Main effect C i.e. area-wise difference is found to be significantly effecting the PF-F (sober vs happy-go-lucky). Other main effects
and interactions are insignificant. It is observed that rural students are sober whereas urban students are happy-go-lucky.

(iii) Only one main effect i.e. area-wise difference is found to be significantly effecting the PF-H (shy vs venturesome) at 0.05 level. Group-wise comparison shows that rural students are shy whereas urban students are venturesome.

(iv) Main effect C i.e. area-wise difference is found to be significantly effecting the PF-I (tough-minded vs tender-minded) of the students. Other effects are insignificant. It is found that rural students are tough-minded whereas urban students are tender-minded.

(v) On PF-L (trusting vs suspicious) main effect C i.e. area-wise difference and interaction B x C are found to be significantly effecting this factor at 0.05 level. It is concluded that rural students are found to be adaptable and cheerful. Similarly male as well as female rural students are found to be adaptable, cheerful whereas male or female urban students are doubtful.

(vi) In case of PF-M (practical vs imaginative bent of mind) only one main effect C i.e. area-wise difference is found to be significant at 0.01 level. Results show that rural students are anxious to do right things.

(vii) For PF-N (forthright vs shrewd), only one main effect C is found to be significant at 0.01 level. It is observed that rural students are forthright whereas urban students are shrewd.
(viii) Main effect C i.e. area-wise difference is also found to be significantly producing effect on PF-O (placidness vs apprehensiveness). All other main effects and interactions are insignificant. It is revealed that rural students are mature whereas urban students are moody and depressed.

(ix) In case of PF-Q1 (conservativeness vs experimenting nature) only one main effect C i.e. area-wise difference is found to be significantly producing effect at 0.05 level. It is observed that rural students are found to be conservative whereas urban students possess experimenting nature.

(x) Main effect C i.e. area-wise difference effects the PF-Q2 (dependency vs self-sufficiency) of the students up to significant level. Other effects are insignificant. It is found that rural students are dependent on others for their decision whereas urban students are self-sufficient.

(xi) On the PF-Q3 (indiscipline vs controlled) main effect C and one first-order interaction A x B i.e. stress x sex are producing significant effect due to their significant F-values. It is found that rural students are controlled individuals. Also it appears that male students with high stress are found to be careless whereas females are controlled.

(xii) Main effect C i.e. area-wise difference is found to be significantly effecting PF-Q4 (relaxed vs tense) at 0.01 level. Other effects are
insignificant. It is observed that rural students are found to be relaxed and satisfied whereas urban students are somewhat careless.

Hence, based on the above results, hypothesis 4 (c) that there is no significant effect of social stress, sex, locality and their various interactions on personality traits is partially accepted.

**S5 (Financial Stress)**

1. Only one main effect C i.e. area is found to be significant at 0.01 level. Similarly only one first order interaction A x B i.e. stress x sex is found to be significant at 0.05 level in case of academic achievement of students. Thus urban rural differences affect the academic achievement of students. Also after comparing the mean scores of different group under interaction A x B, it is found that high stress male are low achievers whereas females with average financial stress are high achievers in their academic subjects. Therefore, hypothesis 5 (a) is partially retained.

2. In case of reasoning ability F-value is significant for the main effect C i.e. area. From the results it is found that rural students have more reasoning ability as compared to urban students. All other interactions are found to be insignificant. Therefore, hypothesis 5 (b) is also partially retained.

3.

a) In case of personality factor O (placidness vs apprehensiveness) only one main effect C is found to be significant at 0.05 level.
b) In case of personality factor Q3 (undisciplined vs controlled) only one first-order interaction A x B is found to be significant at 0.05 level.

Thus from the above results it is concluded that:
(i) Urban students are moody whereas rural students are mature, confident (PF-O)
(ii) Male or female students with average or low financial stress are controlled and disciplined whereas male or female students with high financial stress are indisciplined (PF-Q3)
(iii) Rural students are relaxed while the urban students are tense.

As F-values are found to be significant in case of only three personality factors and that too not in all the main effects, first order interaction or second order interactions, therefore hypothesis 5 (c) is accepted in the present study.

S6 (Family Stress)

1. Main effect C i.e. area-wise difference is found to be significantly effecting the academic achievement of students and academic achievement of rural students is higher as compared to urban students. Also interaction B x C is significantly effecting the academic achievement. Further academic achievement of rural students is higher as compared to other groups. Second-order interaction A x B x C is also found to be effecting the academic achievement and academic achievement of female rural students
with average stress is higher as compared to other groups. Therefore hypothesis 6 (a) is partially accepted.

2. On the variable of reasoning ability, main effect C i.e. area-wise difference is found to be significantly effecting their level of reasoning ability at 0.01 level.

It is revealed that rural students are having more reasoning ability than urban students. All other interactions are found to be significant. Thus, hypothesis 6 (b) is retained here.

3. On the variable of personality traits, only PF-A (reserved vs outgoing), PF-Q3 (Indisciplined vs Controlled) and PF-Q4 (relaxed vs tense) are found to be significant effecting by main effect A i.e. stress (in case of PF-Q3); and main effect C and interaction C x A (in case of PF-Q4). Thus students with average or low stress are easy going, emotionally expressive (in case of PF-A); female urban students are controlled individuals (in case of PF-Q3) and rural students are relaxed as well as rural students with average or low level of stress are relaxed.

Hence, hypothesis 6 (c) is partially accepted.

S7 (Vocational Stress)

1. Main effect C i.e. urban-rural difference, interactions A x B, B x C and A x B x C are found to be significant due to their significant F-values for affecting the academic achievement of students. It is observed that rural students' academic achievement is higher, female
with average vocational stress have higher academic achievement of rural males and females are having higher achievement, and rural females with average vocational stress are higher in their academic achievement as compared to other groups.

Thus, hypothesis 7 (a) is partially accepted.

2. Main effects A i.e. vocational stress and C i.e. urban, rural difference are found to be significantly affecting the reasoning ability of the students due to their significant F-value at 0.01 level. It is seen that reasoning ability of high vocational stress group is higher and similarly rural students are at a higher level in their reasoning ability. Therefore, hypothesis 7 (b) is also partially accepted.

3.

(i) The entire main effects as well as interactions are found to be significantly affecting the PF-B (less intelligent vs more intelligent). It is witnessed that students with high vocational stress are more intelligent; male students are more intelligent; rural students are more intelligent, male students with high vocational stress are more intelligent; male rural students and rural students with high vocational stress are more intelligent and also rural male students with high vocational stress are more intelligent.

(ii) All the main effects as well as interactions are found to be significantly affecting the PF-C (affected by feelings vs emotionally stable). It is noticed that students with high vocational stress are
more emotionally stable; males as well as rural students are more emotionally stable; male students with high vocational stress are more emotionally stable; rural males as well as rural students with high vocational stress are emotionally stable. Also rural males with high vocational stress are emotionally stable.

(iii) Main effects A, B, C as well as all interactions are found to be significantly effecting the PF-E (humble vs assertive). It is discovered that students with low and average vocational stress are accommodating and same is the case of female students. Rural students as well as female with low and average vocational stress are humble and accommodating, rural students with low and average vocational stress are humble, similarly rural females with low and average vocational stress are humble and accommodating.

(iv) In case of PF-F (sober vs happy-go-lucky), all the main effects as well as interactions are found to be significantly affecting, this factor. It is viewed that students with low and average vocational stress are sober, females are sober; urban students are sober; females with low and average vocational stress are sober; rural females are sober, rural students with low and average stress are sober and rural females with low and average stress are sober.

(v) All the main effects and interactions are significantly affecting the PF-G (conscientiousness vs expedient). It is noted that students with high vocational stress are conscientious, males are conscientious,
male students with high vocational stress are conscientious, rural females are conscientious and rural students with high vocational stress are conscientious.

(vi) It is found that all the main effects and interactions are significantly producing difference in the PF-H (shy vs venturesome) of the students. It is shown that students with low vocational stress are shy, females as well as rural students are shy, females with low and average vocational stress are shy; female rural students as well as rural students with low and average vocational stress are shy.

(vii) From the results, it is shown that the entire main effects A, B, C and interactions A x B, B x C, C x A and A x B x C are found to be significantly affecting the PF-I (tough-minded vs tender minded). It is shown that students with high vocational stress are tender-hearted, females are tender-hearted rural students are tender-hearted, male students with high stress and rural males as well as rural students with high vocational stress are tender-hearted. Similarly male rural students with high vocational stress are tender-hearted.

(viii) It is observed that all the main effects as well as interactions are found to be significantly affecting the PF-L (trusting vs suspicious) of the students. It is also observed that students with low and average vocational stress are adaptable, females as well as rural students are adaptable, female with low and average stress are adaptable, rural females as well as rural students with low and
average stress are adaptable; female rural students with low and average stress are also adaptable.

(ix) It is revealed that main effects A, b, C as well as interactional effects are significantly affecting PF-M (practical vs imaginative bent of mind). It is also revealed that students with low and average vocational stress as well as females tend to do practical work; females with low and average stress as well as urban and rural females are anxious to do right things. Rural and urban students with low and average stress are anxious to do right things. Similarly female urban and rural students with low and average stress are anxious to do right things.

(x) Main interactions A, B, C and all the interactions are found to be significant affecting the PF-N (forthright vs shrewd) of the students. It is also observed that students with low and average stress are forthright, females as well as rural students are forthright; male and female students with low and average stress are forthright; urban and rural females are forthright.

(xi) The entire main effects as well as interactions are found to be significantly effecting PF-O (placidness vs apprehensive). It is maintained that students with low and average stress are calm, cool; females and rural students are calm; females and males with low and average vocational stress are calm; rural and urban students with low
and average stress are calm and cool; urban and rural females with low and average stress are calm and cool.

(xii) From the results, it is perceived that PF-Q1 (conservativeness vs experimenting nature) is affected by all the main effects as well as interactions significantly at 0.01 level. Students with low and average vocational stress are conservative, females and rural students are conservative, female and male with low and average stress are conservative, urban and rural students with low and average stress are conservative; rural females with low and average stress are conservative.

(xiii) All the main effects and interactions are found to be significantly affecting PF-Q2 (dependency vs self-sufficiency). It is stated that students with low and average vocational stress are dependent on others for their decisions, females and rural students with low and average vocational stress are dependent; rural females are dependent and same is the case with rural students with low and average stress.

(xiv) Only one main effect C i.e. area-wise difference is found to be significantly affecting the PF-Q4 (relaxed vs tense). It is detected that urban students are restless, impatient while rural students are relaxed.

From the above results, it is noticed that difference exist in the fourteen personality factors due to different levels of
vocational stress, sex, locality and their various interactions. Hence hypothesis 7 (c) is not retained in this investigation.

**TO SUM UP**

1. Different levels of various stresses although affecting academic achievement but these do not affect the academic achievement of the students significantly at 0.05 level.

2. Sex-difference is not found to be significantly affecting the academic achievement of the student significantly at 0.05 level.

3. In case of physical stress, social stress, financial stress, family stress and vocational stress, area-wise difference is found to be significantly affecting the academic achievement of the students at least at 0.05 level. It is also seen that academic achievement of rural students is higher as compared to their counterparts.

4. Although main effect A i.e. different levels of stress and B i.e. sex-difference are not found to be affecting the academic achievement of the students significantly yet in case of financial stress, interaction A x B is found to be significantly affecting academic achievement. Thus in case of financial stress when different levels of financial stress are combined with sex-difference, significant difference is obtained in the academic achievement of students and it is witnessed that male with high financial stress are less achievers as compared to females with average stress.
5. Although sex-difference is not affecting the academic achievement of students significantly yet when it is combined with area-wise differences, it produces significant difference in the academic achievement of students in case of academic stress, physical stress, social stress, family stress and vocational stress. It is identified that academic achievement of male rural students is higher as compared to other groups.

6. Interactional effect C x A i.e. area x stress is not found to be significant in any type of stress. It means area-wise difference is producing significant effect on academic achievement but when combined with main effect A i.e. academic stress, no significant effect on the achievement of students is found out in this study.

7. Interactional effect A x B x C is producing significant effect on the academic achievement of students only in case of family stress and vocational stress. In other words although main effects A i.e. stress and B i.e. sex-difference are not producing any significant effect on achievement as far as their individual effect is concerned but when combine with C i.e. area-wise difference, significant differences are obtained in case of family stress and vocational stress. Also male rural students with average family and vocational stress are higher achievers.

8. Different levels of self-concept stress, social stress and vocational stress are found to be significantly affecting the reasoning ability
of the students. It is found that students with normal stress are higher in their reasoning ability as compared to other groups.

9. Sex-difference is not found to be significantly affecting the reasoning ability of students.

10. Area-wise difference is found to be significantly effecting the reasoning ability of students in case of academic stress, physical stress, social stress, financial stress, family stress and vocational stress. It is found that reasoning ability of rural students is higher as compared to their counterparts.

11. Neither the first-order interactions A x B i.e. stress x sex, B x C i.e. sex x area, C x A i.e. area x stress nor the second order interaction A x B x C i.e. stress x sex x area are found to be significantly affecting the reasoning ability of the students.

12. Different levels of academic stress, physical stress, social stress, family stress and vocational stress are found to be significantly affecting the PF-A (reserved vs outgoing) of the students. It is found that students with normal stress are outgoing emotionally expressive whereas students with high level of stress are aloof, cool and stiff.

13. Main effects A, B, C interactions A x B, B x C, C x A and A x B x C are found to be significantly affecting the PF-B (less intelligent vs more intelligent) of the students only in case of vocational stress. It is found that students with high vocational
stress are more intelligent, males are more intelligent and same is
the case with rural students. Similarly males with high vocational
stress are more intelligent and male rural students are intelligent.
Rural students with high vocational stress are more intelligent and
rural males with high vocational stress are more intelligent.
Others six types of stresses do not effect the PF-B of the students.

14. Main effect A i.e. different levels of academic stress affects the
PF-C 9affected by feelings vs emotionally stable) of the students
significantly at 0.05 level. Similarly in case of self-concept stress
main effects A, B, and interactions A x B, B x C, C x A, A x B x
C are found to be effecting significantly the PF-C. Thus different
levels of self-concept, sex-difference, levels of self-concept and
sex-difference, sex-difference and area-wise difference, area-wise
difference and levels of stress and also interacting effects of main
variable effects PF-C. Similarly in case of vocational stress also
main effecting A, B, C, A x B, B x C, C x A and A x B x C are
found to be affecting the PF-C significantly. It is found that
students with high vocational stress are emotionally stable.
Similarly males and rural students are emotionally stable. Males
with high vocational stress and rural males are emotionally stable.
Rural students with high vocational stress are emotionally stable
and rural males with high vocational stress are emotionally stable.
15. Only main effect A of self-concept stress and their interactions B x C, C x A are found to be affecting the PF-E (humble vs assertive) of the students and also main effects A, B, C, A x B, B x C, C x A, A x B x C are found to be significantly affecting the PF-E in case of vocational stress. It is found that students with low and normal vocational stress are accommodating, females and rural students are accommodating; females with low and normal vocational stress are accommodating and humble; rural females are humble; rural students with low and normal vocational stress are humble and rural females with low and normal vocational stress are humble and accommodating.

16. Only C x A effect of academic stress, main effect A, B interactions A x B, B x C, C x A, A x B x C of self-concept stress; area-wise difference (i.e. effect C) of physical stress and social stress and also all the effects and interactions of vocational stress are found to be significantly affecting the PF-F (sober vs happy-go-lucky) of the students. It is observed that in all rural students are sober. Students with low and normal vocational stress are sober, females and rural students are sober, females with low and normal vocational stress are sober, rural females are sober, rural students with low and normal vocational stress are sober; and rural females with low and normal vocational stress are sober.
17. Main effect A and interactions C x A of academic stress are found to be significantly affecting PF-G (conscientiousness vs expediency) of the students. Similarly interactions B x C and C x A in case of self concept stress and main effect A of physical stress are found to be significantly affecting the PF-G. In case of vocational stress all the main effects A, B, C interactions A x B, B x C, C x A, A x B x C are found to be affecting the PF-G. In general it is observed that students with normal stress are conscientious, males and rural students are conscientious; males with high vocational stress are conscientious, rural females are conscientious. Rural students with high vocational stress are conscientious, and male rural students with vocational stress are conscientious.

18. Interaction C x A of academic stress; main effect A and interactions A x B, B x C, C x A, A x B x C of self-concept stress; main effect C of physical stress; main effect C of social stress and all the main effects A, B, C and interactions A x B, B x C, C x A, A x B x C of vocational stress are found to be significantly affecting the PF-H (shy vs venturesome) of the students. In general rural students are found to be shy. Students with low vocational stress are shy, females as well as rural students are shy, females with low and normal stress are shy, females rural students are shy, rural students with low and normal
vocational stress are shy, rural females with low and normal vocational stress are found to be shy.

19. Main effects A, B interactions A x B, B x C, C x A, A x B x C are found to be significantly affecting the PF-I (tough minded vs tender minded) of the students. Also main effect C i.e. area-wise difference is found to be significantly affecting the PF-I in case of physical stress and social stress. Similarly all the main effects and interactions are found to be significantly affecting the PF-I. It is found that females and rural students are tender hearted, rural males are tender hearted, rural with high vocational stress are tender hearted, male rural students with high vocational stress are tender-hearted.

20. All the main effects (except C) and interactions of self-concept stress; main effect C of physical stress and social stress and all the main effects and interactions of vocational stress are found to be significantly affecting the PF-I (trusting vs suspicious) of the students. In general, it is seen that rural students are trustworthy. Students with normal vocational stress and females are trustworthy. Females with low and normal vocational stress are trustworthy; rural females are trustworthy and rural students with low or normal vocational stress are adaptable and trustworthy. Similarly rural females with normal vocational stress are adaptable and trustworthy.
21. All the main effects (except B) and interactions of self-concept stress main effect C of social stress and all the main effects and interactions of vocational stress are found to be significantly effecting the PF-M (practical vs imaginative bent of mind) of students. It is noticed that vocational stress are of practical mind, females and rural students are of practical mind; females with normal vocational stress are practical mind, rural students with normal stress are of practical mind.

22. Interaction C x A of academic stress, main effect C of physical and social stress and all the main effects and interactions of vocational stress are found to be significantly affecting the PF-N (forthright vs shrewd) of the students. It is noted that in general rural students are forthright. Students with low and normal vocational stress are forthright; females and rural students are forthright; females with normal stress are forthright; rural females are forthright; rural students with low and normal vocational stress are forthright; rural females with low and normal vocational stress are forthright.

23. Interaction C x A of academic stress, main effect C of physical stress, social stress and financial stress and also all the main effects and interactions of vocational stress are found to be significantly affecting the PF-O (placidness i.e. mature, confident vs apprehensiveness i.e. moody, depressed) of the students. It is
found that rural students are mature and confident whereas urban students are moody. Students with normal vocational stress are calm, cool, confident, females and rural students are calm and cool; females with low and normal vocational stress are calm and cool, rural females are calm; rural students with normal stress are calm; rural females with normal stress are calm and cool.

24. Main effects A, B and all interactions in case of self-concept stress, main effect C in case of main effect C and all the main effects and interactions in case of vocational stress are found to be significantly affecting the PF-Q1 (conservativeness vs experimenting nature) of the students. It is witnessed that rural students are conservative. Students with low and normal vocational stress are conservative, females and rural students are conservative; females with low and normal vocational stress are conservative; rural females are conservatives; and rural females with low and normal vocational stress are conservative.

25. Only one interaction i.e. C x A in case of academic stress, one main effect i.e. C in case of physical stress and social stress and all the main effect i.e. C in case of physical stress and social stress and all the main effects and interactions in case of vocational stress are found to be significantly affecting the PF-Q2 (dependency vs self-sufficiency) of the students. It is observed that rural students are dependent on others for their decision.
Students with low and normal vocational stress are dependent on others; females and rural students are dependent on others; male and females with low and normal stress are dependent; rural females with low and normal stress are dependent.

26. In case of academic stress main effect C and interactions A x B, B x C, C x A are found to be significantly affecting the PF-Q3 (indiscipline vs controlled) of students. Similarly main effect C and interactions A x B, B x C in case of social stress and interaction A x B, in case of financial stress and interaction B x C in case of family stress are found to be significantly affecting the PF-Q3. It is found that urban students are controlled, female urban are disciplined, females with low and normal social stress are disciplined, male and females with low and normal financial stress are disciplined.

27. Main effect A and interaction C x A in case of academic stress, main effect C in case of self-concept stress, social stress, financial stress, family stress and vocational stress are found to be significantly affecting the PF-Q4 (relaxed vs tense) of the students. It is concluded that students with low and normal academic stress are relaxed, urban students with low or normal academic stress are relaxed. In general, it is found that rural students are relaxed and satisfied whereas urban students are tense and restless.
SUGGESTIONS FOR FURTHER RESEARCH

Future researchers with the potential for research can consider the following studies for exploration.

1. Studies may be conducted on students of other classes as the present study was delimited to tenth class students only.
2. Studies may be conducted by taking students from different types of schools e.g. Navodaya, Model schools. Public schools as the present study was delimited to only private and government schools situated in three districts of Jammu And Kashmir State.
3. The present study was delimited to academic achievement of the students by taking their aggregate marks. The same study may be undertaken by taking any school subject only.
4. For finding the validity of the findings of the present study, the researcher, may extend the sample by taking more districts of Jammu And Kashmir State or by taking sample from some other areas or still another by developing other norms for classification of independent variables.
5. In order to get the true picture about the contribution of variables of the present study, the statistical techniques of step-up regression equations or factor analysis may be employed.
6. A comparative study may be undertaken on different types of schools or by taking the students of Arts, medical or Non-medical streams.
7. Instead of taking the sex and locality as the independent variables, the effect of socio-demographic variables or effect of home and school environment may be explored.

8. The study may be conducted on a sample of different exceptional children.

9. Instead of delimiting the study into sex, locality as independent variables, other variable-adjustment, self-concept, extroversion-neuroticism etc. may be taken up.

10. Instead of taking academic, social, family, and vocational stresses etc. as in the present study researcher can take other types of stress also – e.g. perceived life stress, psychological stress etc.