A FACTOR - ANALYTICAL STUDY OF EMOTIONAL INTELLIGENCE, NEED ACHIEVEMENT, TEMPERAMENT AND CHARACTER AMONG POST GRADUATE STUDENTS

ABSTRACT

THESIS

SUBMITTED TO THE ALIGARH MUSLIM UNIVERSITY, ALIGARH
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BY

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ABSTRACT

The question raised in the mind of the researcher is whether Emotional Intelligence has any relation with Need Achievement. According to Goleman (1998) in Emotional Intelligence there is a dimension called ‘Achievement Drive’ which seems to be directly related to Need Achievement. However whether other dimensions like: Self Awareness, Self –Regulation, Empathy and Social Skills of Emotional Intelligence are also related to Need Achievement.

As far as the Character and Temperament are concerned, there are seven (7) dimensions and again we want to know whether Emotional Intelligence is any way related to or has any relationship with these factors. Since we consider personality characteristics as generalized in different walks of life including learning, perception etc, therefore the study of personality factors seems to be relevant to Need Achievement as well as to Emotional Intelligence.

Moreover, the investigator chose these four variables on the basis that firstly Emotional Intelligence has recently gained utmost importance and is being applied in all the fields and has earned an edge over IQ in the last decade. Temperament and Character variables are together used mostly in clinical studies. Just like motives are central to any theory of personality and therefore has a strong education implication so are our emotions. Motives are
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emotions in actions. Temperament and character are both biological and psychological. We cannot disregard temperament and character from any understanding of human behaviour and therefore these implications to the field of education cannot be overlooked. It was felt that these variables as a major part of personality should be dealt in educational field and lastly the 'need' for “Need Achievement” was because as the study is a research in education, it becomes immensely important to apply these variables in the educational field and classroom environment where the achievement motivation is of paramount importance for the students.

The present study aimed at achieving the following objectives:

1. To study the relationship between ten sub dimensions of Emotional Intelligence and Need Achievement.
2. To study the relationship between ten sub dimensions of Emotional Intelligence and four sub dimensions of Temperament.
3. To study the relationship between the ten sub dimensions of Emotional Intelligence and three sub dimensions of Character.
4. To study the relationship between the four sub dimensions of Temperament and Need Achievement.
5. To study the relationship between the three sub dimensions of Character and Need Achievement.
In order to study the objectives the following hypotheses were formulated in the form of null-hypothesis:

1. There is no relationship between any sub dimensions of Emotional Intelligence and Need Achievement.

2. There is no relationship between any sub dimensions of Emotional Intelligence and any sub dimensions of Temperament.

3. There is no relationship between any sub dimensions of Emotional Intelligence and any sub dimensions of Character.

4. There is no relationship between any sub dimensions of Temperament and Need Achievement.

5. There is no relationship between any sub dimensions of Character and Need Achievement.

6. There is no relationship between any sub dimensions of Temperament and any sub dimensions of Character.

In order to study the seventh (7th) objective the investigator used the rotated varimax techniques of Factor Analysis.
In order to achieve the objectives of the present study, the following measures were employed:

For measuring Emotional Intelligence of the post graduate students 'Emotional intelligence Scale (EIS)' by Anukool Hyde, Sanjyot Pethe and Upinder Dhar [2001] was used. This scale consisted of ten sub dimensions namely- Self Awareness, Empathy, Self Motivation, Emotional Stability, Managing Relations, Integrity, Self Development, Value Orientation, Commitment, and Altruistic Behaviour.

The Temperament and Character dimension of personality of the post graduate students was measured by 'The Temperament and Character Inventory (TCI)' by Cloninger et. al. [1994]. The inventory comprises of four sub dimensions of Temperament namely- Novelty Seeking, Harm Avoidance, Reward Dependence and Persistence. And three sub dimensions of Character namely- Self Directedness, Cooperativeness and Self Transcendence.

For measuring Need Achievement of post graduate students 'Achievement Motivation Test (n-Ach scale)' by Pratibha Deo and Asha Mohan [1985] was used.

The data on all the measures was collected from the four faculties of Aligarh Muslim University, namely- Faculty of Social Sciences, Life sciences, Commerce and Arts. The sample of 300 post graduate students was selected consisting of 151 males and 149 females and this sample is representative of the population.
Abstract

In the present study inter correlation matrix is used to see the relationships between each sub dimensions of each variable. For objectives from one (1) to six (6), the investigator employed the Pearson’s Product Moment Correlation. In order to test the hypotheses from one to six, product moment correlation was found between the four variables along with their sub dimensions.

The main objective of the study was to find out the common factors that account for the relationship between Emotional Intelligence, Need Achievement, Temperament and Character. For this purpose factor analysis was carried out. All the calculations were done on the computer with the help of a software package named as Statistical Package for Social Sciences (SPSS) (version 10.0).

The product moment correlation coefficient yielded the following results. Only the important and significant results have been summarized as follows:

1) **Temperament: Novelty Seeking** - a sub dimension of temperament has significant negative correlation with Harm Avoidance, Reward Dependence and Persistence (sub dimensions of Temperament) along with Self Directedness, Cooperativeness and Self Transcendence (all the sub dimensions of Character) in all the groups.

**Harm Avoidance** - a sub dimension of temperament has significant negative correlation with Reward Dependence, Novelty
seeking and Persistence (sub dimensions of Temperament) and Self Directedness, Cooperativeness and Self Transcendence (all the sub dimensions of Character) in all the groups. In life sciences and female groups Harm Avoidance has a significant positive correlation with Reward Dependence (a sub dimension of Temperament).

**Reward Dependence**- a sub dimension of temperament has a positive significant correlation with Self Directedness, Cooperativeness and Self Transcendence (the three sub dimensions of Character). Reward Dependence has positive correlation with Emotional intelligence having sub dimensions like Self Motivation, Self Development, Managing relations and Total Emotional Intelligence in total sample and with the same sub dimensions of Emotional Intelligence in addition to Altruistic Behaviour (another sub dimension of Emotional intelligence) was observed in arts group. Reward Dependence is negatively correlated to Harm avoidance (a sub dimension of Temperament) in male group and negatively correlated to Novelty Seeking (a sub dimension of Temperament) in commerce group.

**Persistence**- a sub dimension of temperament is significantly and positively correlated to Self Directedness, Cooperativeness (sub dimensions of Character) and Reward Dependence (a sub dimension of Temperament). The common variable negatively correlated to
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Persistence in all the groups is Harm Avoidance (a sub dimension of Temperament). Persistence is also negatively correlated to Novelty Seeking (a sub dimension of Temperament) in arts group. Persistence is positively correlated to Need Achievement; Managing Relations, Self Awareness, Integrity (sub dimensions of Emotional Intelligence) and Total Emotional Intelligence in social sciences group. And Persistence is significantly correlated to Need Achievement and Managing Relations in Total sample

2) Character: Self Directedness- a sub dimension of Character is positively correlated to Persistence (a sub dimension of Temperament) and Cooperativeness (a sub dimension of Character) in all the groups except in life sciences group, where Self directedness is only negatively correlated to Harm Avoidance (a sub dimension of Temperament). Managing Relations (a sub dimension of Emotional Intelligence) is positively correlated to Self Directedness in social sciences group and Value Orientation (a sub dimension of Emotional Intelligence) is positively correlated to Self Directedness in commerce group. Commitment (a sub dimension of Emotional intelligence) is positively correlated to Self Directedness in arts group. Self Directedness is negatively correlated to Novelty Seeking (a sub dimension of Temperament) in Total sample, female, social sciences, commerce and arts groups.
Abstract

**Cooperativeness**- a sub dimension of character is positively correlated to Reward Dependence and Persistence (sub dimensions of Temperament) and Self Directedness (a sub dimension of Character) in all the groups. Cooperativeness is also significantly and positively correlated to Need Achievement in Total sample only. And it is found that Cooperativeness is positively correlated to Empathy (a sub dimension of Emotional Intelligence) in female group and with Self Transcendence (a sub dimension of Character) in commerce group only. Cooperativeness is significantly and negatively correlated to Novelty Seeking (a sub dimension of Temperament) in all the groups except life sciences group and also Cooperativeness is negatively correlated to Harm Avoidance (a sub dimension of Temperament) in social sciences group.

**Self Transcendence**- a sub dimension of character is positively correlated to Reward Dependence (a sub dimension of Temperament) and Cooperativeness (a sub dimension of Character) in Total sample, male, female, commerce and arts groups only. Self Transcendence is positively correlated to Need Achievement in social sciences group only. Self Transcendence is positively correlated to Value Orientation (a sub dimension of Emotional Intelligence) in female group; with Self Awareness, Self Motivation and Managing Relations (sub dimensions of Emotional Intelligence) in arts group only. Self Transcendence is
significantly negatively correlated to Harm Avoidance (a sub dimension of Temperament) in Total sample, male, and life sciences group only.

3) **Need Achievement**: Need achievement is significantly and positively correlated with Persistence (a sub dimension of Temperament) in Total sample; with Self Directedness and Cooperativeness (sub dimensions of Character) in Total sample, male and female groups. Need Achievement has maintained a positive and significant relationship with almost all the sub dimensions of Emotional Intelligence in all the groups.

4) **Emotional Intelligence**: Emotional Intelligence has yielded a constant positive and significant relationship with Need Achievement in all the groups. Emotional Intelligence is positively correlated to Reward Dependence (a sub dimension of Temperament) in Total sample and arts group; with Persistence (a sub dimension of Temperament) in social sciences group only and with Cooperativeness (a sub dimension of Character) in life sciences group only. Further Emotional Intelligence is negatively correlated to Harm Avoidance (a sub dimension of Temperament) in the Total sample.

Therefore the researcher has rejected all the null hypotheses as significant relationships were observed in some or the other sub dimensions
of all the four variables, namely, Emotional Intelligence, Need Achievement, Temperament and Character.

In order to study the seventh objective namely 'The factors involved in Emotional Intelligence, Need Achievement, Temperament and Character', varimax techniques of factor analysis was used and the findings are summarized as follows, considering all the result 23 factors/traits have emerged, namely:

1) Emotional Intelligence with High Need Achievement.
2) Extrinsically motivated Emotional Intelligent.
3) Spiritual Orientation/Religious Orientation.
4) Reflective and Persistent Personality.
5) Self Actualization Orientation.
6) Self Directed Optimistic Personality.
7) Leadership.
8) Self Confident/Self Dependent Personality.
9) Extrinsically Motivated, Cautious/Pessimistic and Reflective Personality.
10) Highly Motivated for Self Development.
11) Hedonistic/ Self Centered Personality.
12) Self Directed, Reflective and Optimistic Personality.
13) Materialistic and Self Centered Personality.
14) Emotional Intelligent directed towards being Self Centered.
15) Timid and Suggestible Personality.
16) Lively and Conscientious Personality.
17) Bold and Enthusiastic Personality.
18) Motivated for Self Development with Self Centered Attitude.
19) Emotional Intelligent.
20) High Extrinsic Motivation with lack of Self Awareness.
22) Extrinsic Motivation with Altruism.
23) Impulsive and Enthusiastic.

The statistical results and their interpretation have led to certain significant findings. On the basis of these findings, certain significant education implications are suggested. Considering all the result, 23 factors have emerged and in a nut shell the result is summarized and concluded as:

1. We find that factor ‘Emotional Intelligence with High Need Achievement’ is common in all the groups except life sciences group (Though Need Achievement was present with Emotional Intelligence variable in life sciences group, but with low loading).

2. The three factors common in male and female samples are ‘Emotional Intelligence with High Need Achievement’, ‘Self Actualization Orientation’ and ‘Self Directed Optimistic Personality’.
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3. The male sample differed from female sample by having factors like ‘Extrinsically Motivated Emotional Intelligent’, ‘Leadership’ and ‘Self Confident/Self Dependent Personality’.

4. The female sample differed from male sample by having factors like: ‘Highly Motivated for Self Development and Hedonistic/Self Centered Personality’.

5. Male and female sample also have one factor i.e., ‘Extrinsically Motivated personality’, which is ‘reflective’ in female sample and which is ‘reflective and cautious/pessimistic’ in the male sample.

6. The factor ‘Religious Orientation’ with intrinsic orientation is present in social sciences group and the same factor with extrinsic orientation is present in arts group.

7. There is a proof for intrinsic and extrinsic religious orientation of Allport (1967). Factor like ‘Self Actualization Orientation’ is found in Total sample, male sample, female sample and commerce groups.

8. Factor ‘Spiritual Orientation’ i.e., intrinsically religious orientation according to Allport is found in total sample and life sciences sample.

9. Life sciences group showed unique qualities like ‘Timid and Suggestible personality’ and ‘Leadership’.

10. ‘Leadership’ was found only in two groups, namely male and life sciences group.
11. The peculiar quality present in social sciences group is ‘Materialistic and Self Centered Personality’.

12. The commerce group proved its unique qualities by having factors like ‘Live and Conscientious Personality’ and ‘Bold and Enthusiastic Personality’.

13. Arts group has stood out from the rest of the group by having qualities like ‘Extrinsic Religious Orientation’, ‘Extrinsic Motivation with Altruism’ and ‘Impulsive and Enthusiastic Personality’.

14. The combination of Self Centered Attitude is present in three groups. In social sciences group ‘Materialistic and Self Centered Personality’ is present. In life sciences group ‘Emotional Intelligent directed towards being Self Centered Personality’ is present and in commerce group ‘Motivated for Self Development with Self Centered Attitude’ is present. The reason being that the sub dimension ‘Self Development’ common in all with different combination with other sub dimensions. The variable emotional intelligence with predominance of self centeredness may be related to the present sample, more specifically ‘age’ may be responsible for self centeredness. Once a person gains self-confidence he/she may turn towards others development.

15. Persistence – a dimension of temperament has quite often been found to form a constellation along with Self Directedness and Cooperativeness- the two dimensions of Character. It seems that a
Abstract

temperament having persistence leads to high character in terms of Self-Directedness and Cooperativeness.

The educational implications of the study are discussed as follows:

The teacher's level of EQ is an important variable in creating a classroom where EI can be developed more effectively. And the single most important variable in the teacher's EQ is how they handle their own emotions, especially their negative emotions. An effective, successful teacher is largely one who can handle his or her negative feelings in an authentic, real and healthy way.

Character is at the core of leadership. We need sincere leaders who can build the Nation. Persistence- an aspect of temperament and Self Directedness, Cooperativeness and Self Transcendence have to be taken into consideration while planning strategies for teaching into classroom. These factors are important for personality development.

Self Transcendence is necessary for self actualization which is the highest motive in Maslow's hierarchy of Needs. It has to be gradually inculcated and age variable along with other factors should be taken into consideration while teaching for Self Transcendence.

Excessive Harm Avoidance can be related to social phobia which has to be controlled by a competent teacher. There is a need to change the cognitive structure of the students for better social development. In place of
excessive Harm Avoidance self confidence, a mature self assertion and self directedness have to be created.

This study emphasizes a holistic approach to personality development among students. They have to be taught actions, choice and responsibility (Character). Self Directedness is very important as Self Directedness includes responsibility, purposefulness, resourcefulness and self acceptance. Goal Orientation is a part of Self Directedness. Recently educational psychologists have emphasized goal orientation which leads to better performance, learning and achievement.

The present day scenario is sometimes full of moral chaos and its resulting negative effects on various aspects of life. Educationists must deal with character in its psychological aspects for a fuller development of personality. Persistence need not be emphasized as for every task and endeavor this attitude is very essential. Cooperativeness has a component namely ‘integrated conscience’ which of course is related to morality and its development not only occurs through religious practice but also with how one knows and manages his emotions. A constellation of personality factors such as Persistence, Cooperativeness, Self Directedness and if possible Self Transcendence along with Emotional Intelligence is desirable.
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2009
Certificate

This is to certify that Ms. Anjum Ahmed has completed her thesis entitled "A Factor Analytical Study of Emotional Intelligence, Need Achievement, Temperament and Character among post graduate students." under my supervision. To the best of my knowledge and belief, the work is of original nature. It may be considered a contribution to knowledge in the field of education, especially of educational psychology. It has not been submitted for award of any degree or diploma elsewhere. In my opinion, this work is suitable for the award of Doctor of Philosophy in Education.

(Prof. Roquiya Zainuddin)
Supervisor
Dedicated
To
My Family
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To the Almighty I bow my head in humility and reverence for having gifted man with the faculty of reasoning and a spirit of discovery.

When all is written and the moment finally arrives to conclude one's labour it is time to look back and be able to recognize and appreciate the help which was so freely given along that long and arduous journey.

Not merely for the sake of tradition or obligation rather. I undoubtedly and overwhelmingly express my gratitude and heartfelt thanks to all who led me complete this study in all possible ways.

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Anjum Ahmed
Anjum Ahmed
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Chapter 1

INTRODUCTION
INTRODUCTION

INTRODUCING EMOTIONAL INTELLIGENCE

Evidence is presented that the mass suppression of emotion throughout the civilized world has stifled our growth emotionally, leading us down a path of emotional ignorance. Indeed, many of the problems facing society today are the direct result of emotional ignorance: depression, addiction, illness, religious conflict, violence and war. We've done this because we have had the wrong idea altogether about the nature of emotion and the important function it serves in our lives. (Wayne Payne’s 1985 Doctoral Paper on Emotions and Emotional Intelligence).

If there is anything close to a consensus in the understanding of intelligence, it is that the Intelligence Quotient, or "IQ". But IQ does not wholly account for an individual’s success or failure in the world. In fact, most social scientists who study intelligence estimate that IQ accounts for only 20 to 30 percent of outcome. The nature of human intellect has fascinated scholars for centuries. Philosophers like Plato, Aristotle, Itard and Esquirol have expressed their views on the phenomenon of intelligence. The most basic question, which abounds in theoretical and empirical literature, is: What is Intelligence?

D. Weschler (1944) states that “Intelligence is the aggregate or global capacity of the individual to act purposefully, to think rationally and to deal effectively with his environment".
Education is one of the most important things in life. It is through education that we manage to pass on the progress that humanity has made. One of the factors that people consider when debating nowadays is emotional intelligence. Daniel Goleman's book "Emotional Intelligence" affected education in a very profound manner. Before that book came out, it was speculated that emotions have a lot to do with learning and that feelings are not just instruments to distract students from studying. Because of Daniel Goleman's "Emotional Intelligence" education got a better view on how to make learning easier for the students.

*Emotional Intelligence* (EI), often measured as an *Emotional Intelligence Quotient* (EQ), describes an ability, capacity, or skill to perceive, assess, and manage the emotions of one's self, of others, and of groups. As a relatively new area of psychological research, the definition of EI is constantly changing.

**ORIGIN OF THE CONCEPT**

The distal roots of EI can be traced back to Darwin’s (1872/ 1965) early work on the importance of emotional expression for survival and adaptation. In the 1900’s, even though traditional definitions of intelligence emphasized cognitive aspects such as memory and problem-solving, several influential researchers in the intelligence field of study had begun to recognize the importance of the non-cognitive aspects. For instance, as early as 1920,
E. L. Thorndike at Columbia University used the term 'Social Intelligence' to describe the skill of understanding and managing other people. Similarly, in 1940 David Wechsler described the influence of non-intellective factors on intelligent behavior, and further argued that our models of intelligence would not be complete until we can adequately describe these factors. In 1975, Howard Gardner's *Frames of Mind: The Theory of Multiple Intelligences* introduced the idea of Multiple Intelligences which included both Interpersonal intelligence (the capacity to understand the intentions, motivations and desires of other people) and Intrapersonal intelligence (the capacity to understand oneself, to appreciate one's feelings, fears and motivations). In Gardner's view, traditional types intelligence, such as IQ, fail to fully explain cognitive ability. Thus, even though the names given to the concept varied, there was a common belief that traditional definitions of intelligence are lacking in ability to fully explain performance outcomes.

The first explicit application of the term "Emotional Intelligence" is mostly attributed to Wayne Payne's doctoral thesis, 'A study of emotion: Developing Emotional Intelligence' from 1985. Payne, however, did not publish his theory, so the article published in 1990 by Peter Salovey and John D. Mayer (1990) is generally regarded as the first systematic theoretical account of the construct. As a result of the growing acknowledgement of professionals for the importance and relevance of emotions to work outcomes, the research on the topic continued to gain momentum, but it wasn't until the
publication of Daniel Goleman's best seller 'Emotional Intelligence: Why It Can Matter More Than IQ' that the term became widely popularized. Thereafter, articles on EI began to appear with increasing frequency across a wide range of academic and popular outlets.

THE BIOLOGY OF EMOTION

What has made this theory possible is a relatively recent boom in brain imaging technologies, which has allowed for the gradual mapping in the last few decades of the brain's circuitry. But not until recently have scientists understood the precise role of the prefrontal cortex; it is not, it turns out, the place emotion is formed, but where it is reasoned and processed.

The prefrontal cortex, which is part of the neocortex, what Goleman calls the "thinking brain," interacts with an evolutionarily older part of the brain called the limbic system - what Goleman calls the "emotional brain." A part of limbic system called the amygdala is, in Goleman's words, "the seat of all passions," and it has been in the identification of the function of this region that scientists have begun to understand the paths that emotions take in forming.

Joseph LeDoux, a neuroscientist at the Center for Neural Science at New York University, made in recent years a landmark discovery about the relationship and interaction of the emotional and thinking brains. He pinpointed the neural pathways bringing information to the brain through the
senses, and discovered that information entering through the eyes or ears goes first to the thalamus, which acts as a sort of mail sorter, deciding which parts of the brain to send the information to. If the incoming information, for instance, is emotional, the thalamus sends out two signals -- the first to the amygdala and the second to the neocortex. What this means is that the emotional brain has the information first, and in the event of a crisis can react before the thinking brain has even received the information and had a chance to weigh the options. Goleman calls this an emotional hijacking, and it is apparently a quite common phenomenon.

**DEFINING EMOTIONAL INTELLIGENCE**

There are a lot of arguments about the definition of EI, arguments that regard both terminology and operationalizations. The first published attempt toward a definition was made by Salovey and Mayer (1990) who defined EI as “the ability to monitor one's own and other's feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions.” Despite this early definition, there has been confusion regarding the exact meaning of this construct. The definitions are so varied, and the field is growing so rapidly, that researchers are constantly amending even their own definitions of the construct.
THREE MAIN MODELS OF EMOTIONAL INTELLIGENCE

1) The Ability-Based model

Mayer and Salovey's conception of EI strives to define EI within the confines of the standard criteria for a new intelligence. Following their continuing research, their initial definition of EI was revised to: "The ability to perceive emotion, integrate emotion to facilitate thought, understand emotions, and to regulate emotions to promote personal growth". The ability based model views emotions as useful sources of information that help one to make sense of and navigate the social environment. The model proposes that individuals vary in their ability to process information of an emotional nature and in their ability to relate emotional processing to a wider cognition. This ability is seen to manifest itself in certain adaptive behaviors. The model proposes that EI includes four types of abilities: Perceiving emotions, Using emotions, Understanding emotions and Managing emotions.

2) Mixed models of EI

The Emotional Competencies (Goleman) model- The EI model introduced by Daniel Goleman focuses on EI as a wide array of competencies and skills that drive managerial performance, measured by multi-rater assessment and self-assessment. Goleman explored the function of EI on the job, and claimed EI to be the largest single predictor of success in the workplace. Goleman's model outlines four main EI constructs: Self-
awareness, Self-management, Social awareness and Relationship management.

Psychologist Reuven Bar-On (2006) developed one of the first measures of EI that used the term "Emotion Quotient". He defines emotional intelligence as being concerned with effectively understanding oneself and others, relating well to people, and adapting to and coping with the immediate surroundings to be more successful in dealing with environmental demands. Bar-On hypothesizes that those individuals with higher than average E.Q.'s are in general more successful in meeting environmental demands and pressures. He also notes that a deficiency in EI can mean a lack of success and the existence of emotional problems.

3) The Trait EI model

Petrides and Furnham (2000) proposed a conceptual distinction between the ability based model and a trait based model of EI. Trait EI (or ‘emotional self-efficacy’) refers to "a constellation of behavioral dispositions and self-perceptions concerning one’s ability to recognize, process, and utilize emotion-laden information". This definition of EI encompasses behavioral dispositions and self perceived abilities and is measured by self report, as opposed to the ability based model which refers to actual abilities as they express themselves in performance based measures.
INTRODUCING NEED ACHIEVEMENT

The study of academic motivation is concerned with the factors which determine the direction, intensity and persistence of behavior related to learning and achievement in academic frameworks. Analysis of the extensive research in the area shows a consistent relationship between the motivational factors and achievement and suggests that motivation plays an important role in determining the level of achievement at all stages of academic study. Indeed, motivation is generally considered a necessary condition for learning and behavior. In addition to its significant for level of achievement, educators view academic motivation as an important variable in his own right, as a central factor in the personality and social development of the child.

Motivation lies at the heart of human behavior. Motivation affects human behavior in many ways and at many levels. Motivation affects behavior by acting as a driving force which energizes and directs the human response and behavior. Motivation aims at either to reduce the drive or to maintain the drive depending upon the nature of human need. This dual but contrasting nature of human motivation was proposed and proved by Maslow’s humanistic Theory of Motivation. Accordingly, the deficiency needs like need for food, motivates the human behavior to reduce the drive. On the contrary, the physiological needs, like the need for empowerment or achievement, motivate the human behavior to maintain the drive or even to enhance it.
Many research studies have been conducted to investigate the relationship between human motivation and academic achievement of students. These studies were directly or indirectly inspired by the pioneering effort of D.C. McClelland and J.W. Atkinson who significantly worked in the area of Achievement Motivation.

**HISTORY OF MOTIVATION**

All of the comprehensive theories which dominated psychology until the 1970s had motivational concepts as central component. While modern versions of these theories sometimes overlap it is valuable to distinguish between behavioral, dynamic and cognitive approaches, all of which have shaped ideas in this field.

Theories belonging to the behavioral approach describe motivation in terms of behavioral tendencies in given situations, they emphasis the role of learning experiences, contingencies of reinforcement and situational variables in determining the direction and intensity of behavior. The radical behaviorism of Skinner as well as the social learning theory (Bandura, Mischel), both belong to this general approach although the two disagree strongly as to the role played by cognitive variables in mediating the effect of reinforcements and models.

Dynamic approaches, based on psychoanalysis argue that behavior is determined by internal, largely unconscious, conflicts between drives,
internalize demands of culture, and the reality orientation of the ego. The dynamic of these conflicts lead, over the course of the child’s development, to the increasing dominance of reality guided activity over impulse and pleasure orientation. Psychoanalysis has contributed to the study of academic motivation by placing it within the context personality in general, and by suggesting a framework for the analysis and treatment of motivational difficulties such as work inhibition and neurotic anxiety.

Cognitive approaches view motivation as determined by a process of decision making, in which an active individual, seeking meaning and control of his or her environment considers and selects from among alternative ways of behaving. Prevalent in this approach are the value-oriented theories, which see the motivation for behavior as a function of two general factors the individual’s perception of the value of outcomes expected to follow a certain behavior, and his or her expectancy- the perception of the means and prospects of achieving these outcomes.

Attribution theory, based on the work of Heider, and applied to achievement motivation by Weiner (1980), probes further into the motivational role of cognitive factors by examining how an individual’s interpretations of his or her success or failure in a task determines the perceptions of values and expectancies in the situation.

David Clarence McClelland (1917 – March 27, 1998) was an American personality psychologist, social psychologist, and an advocate of
quantitative history. McClelland earned his BA in 1938 at Wesleyan University, his MA in 1939 at the University of Missouri, and his Ph.D. in experimental psychology at Yale University in 1941. McClelland proposed a content theory of motivation based on Henry Murray's (1938) theory of personality, which sets out a comprehensive model of human needs and motivational processes. In McClelland's book 'The Achieving Society' (1961) he asserts that human motivation comprises three dominant needs: the need for achievement (N-Ach), the need for power (N-Pow) and the need for affiliation (N-Aff). The subjective importance of each need varies from individual to individual and depends also on an individual's cultural background. He also claimed that this motivational complex is an important factor in the social change and evolution of societies.

McClelland's Theory of Needs

In his acquired-needs theory, which draws on Murray's model, David McClelland proposed that an individual's specific needs are acquired over time and are shaped by one's early life experiences. Most of these needs can be classified as either achievement, affiliation, or power. A person's motivation and effectiveness in certain job functions are influenced by these three needs. McClelland's theory sometimes is referred to as the three need theory or as the learned needs theory.
Achievement

People with a high need for achievement (nAch) seek to excel and thus tend to avoid both low-risk and high-risk situations. Predominantly Achievement-motivated individuals avoid low-risk situations because the easily attained success is not a genuine achievement. In high-risk projects, the Achievement-motivated see the outcome as one of chance rather than one's own effort. High nAch individuals prefer work that has a moderate probability of success, ideally a 50% chance. Achievement-motivated individuals need regular feedback in order to monitor the progress of their achievements. They prefer either to work alone or with others like themselves.

Affiliation

Those with a high need for affiliation (nAffil) need harmonious relationships with other people and need to feel accepted by other people. They tend to conform to the norms of their work group. High nAff individuals prefer work that provides significant personal interaction. They enjoy being part of groups and when not anxious make excellent team members, though sometimes are distractible into social interaction.

Power

A person's need for power (nPow) can be one of two types - personal and institutional. Those who need personal power want to direct others, and this need often is perceived as undesirable. Persons who need institutional
power (also known as social power) want to organize the efforts of others to further the goals of the organization. Managers with a high need for institutional power tend to be more effective than those with a high need for personal power.

MEANING AND DEFINITION OF MOTIVATION

The word ‘motivation’ is often used to describe certain sort of behavior. A student who studies hard and tries for top grades may be described as being highly motivated, while his friend may say that he is “Finding it hard to get motivated to study for an examination or to start an assignment”. Such statements imply that motivation has a major influence on our behavior but they don’t really tell us how.

Motivation can be defined as a “concept used to describe the factors within an individual which arouse, maintain and channel behavior towards a goal.” Another way to say this is that “motivation is goal-oriented behavior”. “Motivation is an effective conative factor which operates in determining the direction of an individual’s behavior towards an end or goal consciously apprehended or unconscious”. (James Drever)

“The term motivation refers to the arousal of a tendency to act, to produce one or more effects.” (Atkinson, 20th century)

“Motivation is an energy charge within the person characterized by effective arousal and anticipatory goal directions.” (McDonald, 20th century)
Motive

Thus motive is “The main driving force which compels a man to do certain activity and to attain certain goals. Infact man’s all activity, is driven by motives, make a man’s behavior goal, directed, purposive and meaningful. All feelings, emotions desires, tendencies, inclinations, propensities, drives, impulses, urged, strivings are motives.” (Fisher, 20th century)

Concept of Motivation

The concept of motive and motivation is one of the most important concepts of psychology it has invented. There are instincts in the basis of the human and animal behavior. The motives may be well-understood or may not be clear. Whenever we are or whatever we do, there is a chain of instinct or instincts under every behavior.

“Instinct” in psychology, is a general concept comprising of motives. The physiological instincts like hunger, thirst, sexuality are called incentives. The high incentive like reaching success is called the requirement (need). Instincts motivate the organism and direct the organism’s behavior to a certain aim. When these two features are seen in the organism’s attitude, it can be hold that the organism is motivated.

n-Achievement (Need Motivation)

Maslow (1945) states that some behaviour, but not all is motivated, for him motivated behaviour is need elated. Maslow has described a hierarchy of
human needs to the need for self-actualization. Motivated behaviour is related to these needs. Mechanical associations are not motivated. For example, if the stimulus word 'cupboard' elicits the response word 'bed', the response is determined by associative mechanisms and is not need related; hence the response is not motivated. Such a concept of motivation to behaviour is purposive or goal-oriented or need-related. They exclude reflexes and other physiological processes, abnormal patterns and mechanical association from the study of motivation. (Paul Thomas Young)

**Achievement Motivation**

Achievement motivation, which is the acquired tendency and is one of the most important social needs, has been defined by McClelland and his associates (1953) and also by Decharms (1968) as a disposition to strive for success in competition with others with some standards of excellence set by the individual. Motive to achieve requires an act of some norm of excellence set by the individual. Motive to achieve requires an act of some norm of excellence, long term involvement and unique accomplishment. These are the criteria set by McClelland and his associates (1953). In fact, this is one of the most important manifest of social needs and personality variable enlisted by Murray (1958). Understanding the factors that affect achievement is important because motivation affects achievement and level of occupation (Farmer, 1985).
McClelland and Pilon (1983) proposed that parents promoted the need for achievement by providing support and encouragement. However, as Burger indicated, it is important that parents provide enough support to allow the child to develop a sense of personal competence without robbing the child of independence and initiative (1997). That is, parents must reward their children's accomplishments, but too much involvement might leave the child with an undermined sense of accomplishment.

Motivation is emotion in motion. Sufficiently motivated, an individual will experience physiological changes. The internal reward system is activated. Different circuitry – the amygdala, the nucleus accumbens, the basal ganglia, the brainstem and the hippocampus – become involved. Research shows that with proper motivation, learning is quicker. More areas of the cortex become involved.

The motivation of a child differs in some ways from that of an adult. A child's motivation can be viewed as maturing through four phases. The child moves from self-interest to pleasure to competition to immersion, whilst at the same time retaining vestigial aspects of each stage.

- self-interest and security then,
- desire to please another and/or
- need to avoid displeasure of another then,
- drive to compete with peers and/or
- drive to compete with self then,
- immersion through pleasure
Motivational theory takes the above dimensions and packages them into sophisticated models. Pintrich and Schunk (2004) identified six.

Expectancy and Value

Expectancy represents the key idea that individuals will not choose to do a task or continue to do a task when they expect to fail. The value component refers to the different beliefs an individual may have about the worth of engaging with the task.

Attribution

Attribution suggests that individuals are driven by a need to understand and make sense of themselves and the world around them. It also suggests that individuals attempt to understand what causes their behaviours and those of others around them.

Social cognition

Social cognitive theory suggests that individuals are influenced by what they see around them. They then act based on their thoughts, goals, beliefs and values which are shaped by their observations. This process is called modelling. Self-efficacy and goal setting are important features of the social cognition model.

Goal orientation

Goal orientation theory focuses on needs and goals. Needs can be understood through the context of homeostasis. Unfulfilled needs generate a tension which then leads to some approach or avoidance behaviour to release
the tension and satisfy the need. Goals can be looked at in terms of goal content - what is the desired outcome - and goal processes - what strategies to use to secure the goal. Multiple goals, when not in conflict, can create a synergy.

**Intrinsic motivation**

Intrinsic motivation theory refers to motivation to engage with an activity for its own sake. On the other hand, extrinsic motivation is motivation to engage with an activity for some sort of betterment. Each is a separate continuum and not necessarily linked. Each is time and context dependent.

**Engagement and emotion**

Engagement and emotion theories include those to do with emergent motivation and what is called 'flow', constraints on learning performance such as test anxiety and concepts of self-esteem.

**INTRODUCING TEMPERAMENT**

Psychologists have long argued about what causes differences in personality. In earlier centuries, theorists like Galen have invoked nature, claiming that a difference in the humours or fluids in the bodies was responsible for personality. During most of the twentieth century, political ideology, discoveries about the learning or conditioning capabilities of infants, and the emergence of psychoanalytic theory, which emphasized the
importance of early experience, all combined to discredit biological explanations for human motivation and emotion. Nurture and socialization became the explanations of favor. In the latter half of this century, there has been a resurgence of interest in the contribution of temperament to children's development. Although a number of theorists have their own distinctive definitions, temperament is generally agreed to be a source of individual differences in emotions or motivations (i.e., not cognitive or intellectual) that are biologically based and inherent in the individual, that may be genetic, and that appear early in life. Temperament may be considered the biological contribution to personality. It is a predisposition that allows two individuals to experience the same objective event very differently within the range of normal behavior and development. Temperament is a source of individual differences, not abnormalities or psychopathologies. Many factors have lead to this renewed interest in the idea of temperament. Scientists have uncovered the role of many neurochemicals in the brain and their link to behavior. Studies on animals have identified genetically mediated strain differences in physiology and behavior that have provided clues about human temperament. Certainly, one of the most important influences was the work of two clinicians whose interest was in the role of temperament in mental health. The New York Longitudinal Study. Suspecting that inherent individual differences among their young patients contributed to their developmental path. Child psychiatrists Alexander Thomas and Stella Chess designed a study that would
challenge the nature-nurture dichotomy. Beginning in 1956, Thomas and Chess collected longitudinal data from over 100 children, following them from infancy through early adulthood. Using extensive clinical interviews to gather information about children's behavior as well as parent's values and expectations, they examined the goodness of fit between the individual child and his or her environment. Even in infancy, the investigators found that children could be rated on each of nine dimensions: activity level, rhythmicity or regularity in biological functions like eating and sleeping, the tendency to approach or withdraw, adaptability, threshold of responsiveness (degree of stimulation required to evoke a response from the child), intensity or energy level of reactions, quality of mood, distractibility and attention span, and persistence.

CONCEPT OF TEMPERAMENT

In psychology, temperament is the innate aspect of an individual's personality, such as introversion or extroversion. Temperament is defined as that part of the personality which is genetically based. Along with character, and those aspects acquired through learning, the two together are said to constitute personality.

Historically the concept was part of the theory of the humours, which had corresponding temperaments. It played an important part in premodern psychology, and was important to philosophers like Immanuel Kant and
Hermann Lotze. More recently, with the emphasis on the biological basis of personality, the relationship between temperament and character has been examined with renewed interest that temperament is biologically based, they also discuss the dynamic interplay of traits and environment, the cultural patterning of familial response.

Temperament can be conceived of as those predispositions for behaviour that form the substrate on which experience and life events work to form the traits that later build a personality. Temperament is discernible in individual differences that emerge in very young human infants and is presumed to be partly heritable. Temperament, traits and personality are concepts that are hard to distinguish from each other in the literature, with different authors using different approaches (Matthews et al., 2003). Many authors in the animal research literature reserve use of the word personality for people, using the word temperament for animals, but in child developmental work temperament is frequently used to describe humans. Although traits and personality are usually used to describe humans, a number of researchers use the term personality.

ORIGIN OF TEMPERAMENT

Temperament theory has its roots in the ancient four humors theory of the Greek doctor Hippocrates (460-370 BC), who believed certain human behaviors were caused by body fluids (called "humors"): blood, yellow bile,
black bile, and phlegm. Next, Galen (131-200) developed the first typology of temperament in his dissertation *De temperamentis*, and searched for physiological reasons for different behaviors in humans. Nicholas Culpeper (1616-1654) was the first to disregard the idea of fluids as defining human behavior, and Immanuel Kant (1724-1804), Rudolf Steiner (1861-1925), Alfred Adler (1879-1937), Erich Adickes (1866-1925), Eduard Sprängner (1914), Ernst Kretschmer (1920), and Erich Fromm (1947) all theorized on the four temperaments (with different names) and greatly shaped our modern theories of temperament. Hans Eysenck (1916-1997) was one of the first psychologists to analyze personality differences using a psycho-statistical method (factor analysis), and his research led him to believe that temperament is biologically based. When the idea of temperamental differences has been explored in depth in relation to work and to social relationships, the classical understanding of the topic is seldom a consideration. There are four medieval temperaments which are markedly different from the popular version and are generally in relation to spirituality.

It is only within the past few centuries that religious thought, sadly, has often declined into a combined sense of a Creator (who more or less set the universe in motion then left it on its own), and of a sense of morality based on social needs alone. Until then, this life was seen as a preparation for unity with God in eternity, and moral concepts based on pleasing God through following the precepts He had revealed. The concept of temperament,
incidentally, has nothing to do with divination. It merely recognizes basic differences that influence one's approach to life and spirituality. The medieval psychologist believed that one's temperament was determined by the "humours" in one's system (bile, blood, and so forth), but, if this notion can be discounted, the basic premise of temperament and spirituality remains valid. It actually was Hippocrates who divided humanity into four basic temperaments, around the year 450 BC. Hippocrates saw the root of one's temperament as being derived from the humours dominant in the body: blood (sanguine), bile from the liver (choleric), phlegm (phlegmatic), and bile from the kidneys (melancholic).

**Sanguine**

This personality trait needs the approval and attention of others, and not only enjoy the company (and security) of a group setting but seem to derive their energy from such interaction. Their general amiability makes theirs perhaps the most attractive of temperaments, but, in serious situation, it can be enigmatic. Spiritual growth, for the sanguine, would depend on strong support from sources other than oneself. Sanguine indicates the personality of an individual with the temperament of blood, the season of spring (wet and hot), and the element of air. Sanguines usually have a lot of energy, but have a problem finding a way to direct the energy. This also describes the manic phase of a bipolar disorder.
Phlegmatic

The phlegmatic will have this direct and rather scientific approach. The very lack of passion inherent in the phlegmatic, which can appear to be indifference in relationships with others, will keep their intellectual vision from becoming clouded. The phlegmatic have a degree of detachment that makes for great minds, but does not foster warm relationships. A phlegmatic person is calm and unemotional. Phlegmatic means pertaining to phlegm, corresponds to the season of winter (wet and cold), and connotes the element of water. They are very consistent, relaxed, rational, curious, and observant, making them good administrators and diplomats. Like the sanguine personality, the phlegmatic has many friends. But the phlegmatic is more reliable and compassionate; these characteristics typically make the phlegmatic a more dependable friend.

Choleric

The choleric's strength is zeal, his weakness anger. If a choleric "goes astray", it will be from bitterness and anger, though his principles generally remain unshaken. Trust in divine providence is critical for the choleric - and, as with the melancholic, difficult to develop. Choleric corresponds to the fluid of yellow bile, the season of summer (dry and hot), and the element of fire. They have a lot of ambition, energy and drive, and try to instill it in others, and can dominate people of other temperaments, especially phlegmatic types. On the negative side, they are easily angered or bad tempered. In folk
medicine, a baby referred to as "colic" is one who cries frequently and seems
to be constantly angry.

Melancholic

The depth and dedication of the melancholic will meet or exceed that
of the choleric, but his natural caution and slowness to embrace new courses
of action can leave him with a sense of having no way to channel his
profound ideals. But if the choleric can find his downfall in anger, the
melancholic's Achilles heel is despair. Melancholic is the personality of an
individual characterized by black bile; hence (In Greek melas, "black", +
kholé, "bile"); a person who was a thoughtful ponderer had a melancholic
disposition. Often very kind and considerate, melancholics can be highly
creative - as in poets and artists - but also can become overly obsessed on the
tragedy and cruelty in the world, thus becoming depressed. It also indicates
the season of autumn (dry and cold) and the element of earth. A melancholy
is also often a perfectionist, being very particular about what they want and
how they want it in some cases. This often results in being unsatisfied with
one's own artistic or creative works, always pointing out to themselves what
could and should be improved. This temperament describes the depressed
phase of a bipolar disorder. There is no bodily fluid corresponding to black
bile. However, the medulla of the adrenal glands decomposes very rapidly
after death, and it is possible that this product is the mythical "black bile".
DIFFERENT THEORIES RELATED TO TEMPERAMENT

Although it is well established that personality traits are heritable, most theories of personality do not attempt to identify the specific genes involved. Two temperament/personality theories, in which neuroticism-like traits play a key role, are: The first one is the biological personality theory of Gray, which posits two main brain systems that regulate behaviour in response to environmental stimuli. The behavioural inhibition system (BIS) serves to alert the person to the possibility of danger or punishment, thereby enhancing avoidance behaviour, whereas the behavioural activation system (BAS) is sensitive to signals of reward, and involved in approach behaviour. As BIS shows strong similarity to neuroticism, the present study hypothesized that this personality factor would be positively related to pain catastrophizing.

The second theory is Rothbart's temperament model. According to this model, temperament can be defined as individual differences in reactivity and self-regulation. Reactivity primarily refers to negative affectivity, which can be regarded as an equivalent of neuroticism, and consists of two important lower-order traits, namely fear and anger frustration, of which the former seems most relevant in the case of an anxiety-related phenomenon such as pain catastrophizing.

In the early 1950s regarding infant temperament. The study focused on how temperamental qualities influence adjustment throughout life. Chess, Thomas et.al rated young infants on nine temperaments, namely:
• **Activity level** refers to the amount of physical energy in the child.

• **Regularity**, also known as Rhythmicity refers to the level of predictability in a child’s biological functions such as waking, becoming tired, hunger and bowel movements.

• **Initial reaction** is also known as Approach or Withdrawal. This refers to how the child responds to new people or environments either positive or negative.

• **Adaptability** refers to how long it takes the child to adjust to change.

• **Intensity** refers to the energy level of a positive or negative response.

• **Mood** refers to the child’s general tendency towards a happy or unhappy demeanor.

• **Distractibility** refers to the child’s tendency to be sidetracked by other things going on around them.

• **Persistence and Attention Span** refers to the child’s ability to stay with a task through frustrations and length of time on the task.

• **Sensitivity** refers to how easily a child is disturbed by changes in their environment. It is also referred to as Sensory Threshold or threshold of responsiveness.

Rudolf Steiner brought a new approach to the four classical temperaments: melancholic, phlegmatic, sanguine and choleric. He emphasized their importance in elementary education, as this is a time when the child is strongly affected by his or her nature in this respect. A person's
temperament may change, especially in the pre-puberty years, and in any case diminishes in importance as the personality becomes more developed after puberty. In any case, the temperament is not exclusive; most people combine aspects of all of them. One or two may dominate, however, or be prominent by their absence. In addition, for each temperament Steiner pointed out that there are less and more mature forms: the sullen, self-absorbed melancholic can mature to the sympathetic helper and/or the deep thinker. A person may transform his or her own temperament, as well, either by becoming more mature in what is naturally given or by metamorphosing into a different temperament.

According to Keirsey [1998], temperament can also be seen like the rings of a tree. At the inner ring a person is either introspective or observant. (When people reflect, introspect and pay attention to what is going on inside their heads they are being introspective. Keirsey also believes that someone cannot observe and introspect at the same time. And he believes the extent to which people are being observant or are being introspective has a direct effect on their behavior.) The second ring determines whether or not an individual is cooperative or is pragmatic. (Keirsey uses the words pragmatic and cooperative when comparing the differing temperaments. People who are cooperative pay more attention to other people’s opinions and are more concerned with doing the right thing. People who are pragmatic pay more attention to their own thoughts or feelings and are more concerned with doing
what works). The third ring indicates whether an individual is directive or is informative. (The third ring distinguishes between people who primarily communicate by informing others versus people who primarily communicate by directing others). And the fourth ring indicates whether an individual is expressive or attentive. (The fourth ring describes how people interact in with their environment. Individuals who primarily say and do before they listen and watch are described as expressive whereas people who primarily listen and watch before they say and do are described as attentive).

Cloninger’s theory of personality is based on a synthesis of information from family studies, studies of longitudinal development, and psychometric studies of personality structure, as well as neuropharmacologic and neuroanatomical studies of behavioral conditioning and learning in man and animals (Cloninger, 1987). Originally, the model included only three dimensions of temperament; Harm Avoidance, Novelty Seeking, and Reward Dependence as measured by the 100 item self-report Tri-Dimensional Personality Questionnaire (TPQ) (Cloninger, 1986). The Persistence items in Reward Dependence were later separated and recognised as a fourth, separately inherited dimension of personality (Cloninger, 1994; Stallings, Hewitt, Cloninger, Heath, & Eaves, 1996). The details of this theory will be discussed in CHAPTER-3.
Temperament and personality in humans

A great deal of work has been done on temperament and personality in humans over the past fifty years, ranging from basic research to applied psychology in psychiatric care settings, candidate evaluations in business and organizations, medical treatment and neuropsychological studies. Parallel to this temperament has been studied in the child developmental literature (Kohnstam, Bates, & Rothbart, 1989) with a slightly different focus – that of development, change and heritability. Research in temperament and personality can be divided into two major areas as defined by the directions mentioned above. One key area is the possibility to describe behaviour in terms of underlying factors or traits as measured by individual differences. The other is concerned with the long-term stability and change of these factors and traits. Of course the two fields largely merge in many cases. Of the many models of human temperament and human traits that have been developed, those of H. J. Eysenck and J. A. Gray are perhaps among the most well known within the framework of biological psychology. It could be argued that it is nigh on impossible to understand personality and temperament without understanding a good deal about emotions. Strangely, the study of emotions and the study of personality constitute two separate fields of research within psychology, and rarely do the two meet. Authors like LeDoux (1998) have done a great deal to put emotions on a respectable footing in the world of science, in his particular case, the biological
underpinnings of fear and anxiety. A truly ambitious project integrating neuroscience and emotion research is that of Panksepp (2002). He proposes a model of basic emotions with four major components, present in all mammals from soon after birth, and calls them seeking, fear, panic and rage.

INTRODUCING CHARACTER

Character - the inherent complex of attributes that determines a person's moral and ethical actions and reactions; "education has for its object the formation of character"- Herbert Spencer - a distinguishing feature of your personal nature personality - the complex of all the attributes--behavioral, temperamental, emotional and mental--that characterize a unique individual; "their different reactions reflected their very different personalities". Being a good person, however, is more than a matter of understanding what is morally right. In philosophy a distinction is made between deontic judgments of what is morally right and aretaic judgments of responsibility which involve a commitment to act on one's deontic judgment. In everyday language we use the term "character" to refer to the tendency to act in ways that are consistent with what one understands to be morally right. A person of good character is someone who attends to the moral implications of actions and acts in accordance with what is moral in all but the most extreme of circumstances. This everyday usage of the term character captures an important feature of what is ordinarily meant by a good person. The
question for an educational researcher becomes one of understanding how these common sense notions of character map onto actual human psychology, and what aspects of the educative process can contribute to character formation.

ORIGIN AND CONCEPT OF CHARACTER

Traditional character education, which has been under focus since the early part of this century, had as its central aim fostering formation of elements of the individual's personality and value structure which would constitute socially desirable qualities or virtues. In the late 1920s a major research effort was undertaken by Hugh Hartshorne and Mark May to identify the factors that contributed to the formation of character. The design of their research was based on the reasonable premise that the first step should be to identify those individuals who possessed moral virtues. What they had expected to find was that the population of 8000 students they studied would divide up into those who displayed virtuous conduct nearly all of the time, and those who would not. To the surprise and disappointment of the researchers they discovered that few students were virtuous, and that instead, most children cheated, behaved selfishly, and lacked "self control" a large amount of the time. Virtue, according to their data, seemed to be context dependent as students cheated, or lied in some situations and not in others. As Clark Power (1989, p. 127) noted: Hartshorne and May concluded
that there were no character traits per se but "specific habits learned in relationship to specific situations which have made one or another response successful."

The reference to habit by Hartshorne and May is concordant with traditional views of character formation. Since Aristotle, the development of virtue has been thought to emerge out of the progressive building up of habits. Contemporary character educators (Ryan & McLean, 1987; Wynne in Nucci, 1989) likewise rely heavily on psychological theories that emphasize punishment and reward systems to reinforce desired behavior, and systems of inculcation which are presumed to instill values and virtues in the young. It is worth remembering that in response to their findings, Hartshorne and May concluded that such traditional approaches to character education through the use of didactic teaching, exhortation, and example probably do more harm than good since such practices do not take into account the practical demands of social contexts. In other words, such rigid instruction runs counter to the evaluative and contextualized nature of moral life. By focusing solely on efforts to instill proper values and habits, such approaches fail to develop student’s capacities to make the social and moral judgments that contextualized actions require. Moreover, these rigid approaches run counter to the multifaceted and complex nature of human personality.
The moral self

Findings that individual personality and character are multifaceted, complex and responsive to contextual cues, seems to comport with such common experiences as knowing people who are shy in some contexts and gregarious in others, and fits our general common sense understanding that people are not always consistent in their moral positions or actions. On the other hand, our awareness of such inconsistencies also runs counter to shared experiences that people are more or less shy than others, kinder and more trustworthy than others, and so forth. In other words, there seems to be a sense in which human personality or character is consistent. Resolving this apparent contradiction in the nature of persons has been the task of contemporary personality and social psychology. Resolution with respect to issues of morality and character seems to rest on a recognition that judgments and not just habits are operating when people respond to social contexts. In other words, if individual moral actions are guided by choices and not simply the result of unreflective habit, then the issue for character education rests not with inculcation and habit formation, but in understanding how it is that people judge the worth of their own actions in relation to their world view and sense of themselves as moral beings. We need to move away from the notion of character as a set of externally provided traits and habits to a view of the moral self as constructed rather than absorbed and as being updated and reconstructed continuously (Sarbin, 1986).
Character and the moral self

In Blasi's (Noam, 1993) work on the moral self, he made the point that morality may or may not be a central element of the general narrative we construct about who we are. In other words, morality may or may not be a salient issue in constructing one's personal identity. The fact that virtually all children construct basic moral understandings about fairness and human welfare does not mean that being a person who acts on that knowledge in relation to others is necessarily an important part of how one self defines. According to Blasi, the experience of "guilt" or moral responsibility emerges in those situations in which one acts counter to what one knows to be morally right only for those for whom morality is an integral part of personal identity.

The most important departure that the professional psychologists and the spiritual psychologists make is that one emphasizes personality and the other emphasizes character. Personality is false. Character is the truth, it is reality and it is something you have to build from scratch. Character building cannot be undertaken by just reading books: "How to build a character by ten easy lessons"-there are many books. Character building is a brick-by-brick process, like we build a house. And, in that process, it is important to realize that we are not building a personality. When a man of character stands before you, you don't need to say, "He is a man of personality." Often, they have no personality whatsoever. If they just slip out of this room, you wouldn't even
recognize them. Because character is not something which is external. It may
be reflected in your activities and your words.

A man of character has not even the awareness that he is a man of
carer. It shines in everything that he does. Therefore such people attract,
like they say, the moth to the candle. You cannot possibly accuse or praise
the candle for attracting the insect; it is what it is, and being responsive to
what it is, the rest of the insect life flocks to it. We flock to the light when we
are in darkness. The truth behind the spiritual statement is: "Be yourself, and
you will achieve much more than flaunting a false personality."

-Excerpt from Principles of Sahaj Marg, Vol. 5, pp. 28-42

Character has been defined as "doing the right thing despite outside
pressure to the contrary" (Likona, 1991), and has been elsewhere seen as an
essential leadership attribute (Barlow et al., 2003). In a leadership capacity,
character is seen as "moral excellence" (Hendrix et al., 2003, p. 60), a view
similar to early Greek philosophers who saw character as central to a life of
moral conduct (Aristotle (384-322 BC); Sherman, 1989). Peterson and
Seligman (2003, 2004) assert that building character is a form of moral
development, which improves with age. In particular, they claim that "good
can be cultivated [. . .] [and] that character strengths are the
bedrock of the human condition" (Peterson and Seligman, 2004, pp. 3-4).
These views on character revive Kolberg’s (1981) seminal research on
character as a form of moral development, and reclaim the importance of
character to everyday human interactions and activities. Both social as well as individual psychological factors influence the expression of character. The strengths of the clinical-psychological-personality tradition of character (Cloninger et al., 1993; Millon, 1996; Sperry, 1997) and its focus on the three character dimensions of self-reliance, cooperativeness, and self-transcendence, it is believed that a socio-psychological perspective is more relevant for focus on organizations and their leaders, and is akin to the positive psychology perspective espoused by Seligman (2002). Character is revealed in the moral and ethical choices we make. To act with character is to show virtue. Tjeltveit (2003, p. 400) writes: “character and virtue have to do with the ethical qualities of persons, with what we view as good, or excellent, or praiseworthy about them”. Virtues are central to character. The term virtue comes from the Latin word *virtus* and the Greek concept *arete*, both of which translate to “strength” or “excellence” (Cawley et al., 2000; McCullough and Snyder, 2000). Authentic leaders: knows who they are and what they believe in; they show consistency between their values, ethical reasoning and actions; they develop positive psychological states such as confidence, optimism, hope, and resilience in themselves and their associates; and they are widely known and respected for their integrity (UNL Gallup Leadership Institute, 2004). Aristotle (384-322 BC) believed that character helped explain a person’s past actions and could predict future behaviour (Sherman, 1989). Kirkpatrick and Locke (1991) showed that character as a
leadership trait consists of six elements: drive; desire to lead, honesty and integrity, self-confidence, cognitive ability, and knowledge of the business. Character attributes are also featured in the seven virtues of leadership identified by Barker and Coy (2003). The seven virtues are: humility, courage, integrity, compassion, humor, passion and wisdom.

Peterson and Seligman (2003) found that the strength of character of the general American public immediately following 11 September 2001 was best represented by the values of gratitude, hope, kindness, leadership, love, spirituality, and teamwork. A leader’s character can be a key source of influence in the development of an ethical organizational culture.

SIGNIFICANCE OF STUDY

The question raised in the mind of the researcher is whether emotional intelligence has any relation with Need Achievement. According to Goleman (1998) in Emotional Intelligence there is a dimension called ‘Achievement Drive’ which seems to be directly related to Need Achievement. However whether other dimensions like: Self Awareness, Self –Regulation, Empathy and Social Skills of Emotional Intelligence are also related to Need Achievement.

As far as the Character and Temperament are concerned, there are seven (7) dimensions and again we want to know whether emotional intelligence is any way related to or has any relationship with these factors.
For example, Reward Dependence is dependence on approval of others; therefore it is quite possible that students high in Need Achievement may depend highly on approval of others. Similarly, in recent times Self Regulation and Self Monitoring has been emphasized in learning situations. Self regulation and monitoring studies are done in the context of cognitive and metacognitive studies. (eg. Kluwe, 1982). Since we consider personality characteristics as generalized in different walks of life including learning, perception etc, therefore the study of personality factors seems to be relevant to Need Achievement as well as to Emotional Intelligence.

Moreover, the investigator chose these four variables on the basis that firstly Emotional Intelligence has recently gained utmost importance and is being applied in all the fields and has earned an edge over IQ in the last decade. Temperament and Character variables are together used mostly in clinical studies. It was felt that these variables as a major part of personality should be dealt in educational field and lastly the ‘need’ for “Need Achievement” was because as the study is a research in education, it becomes immensely important to apply these variables in the educational field and classroom environment where the achievement motivation is of paramount importance for the students.
TITLE OF THE STUDY

“A Factor analytical study of Emotional Intelligence, Need Achievement, Temperament and Character among post graduate students.”

OBJECTIVES OF THE STUDY

The objectives of the present study are given below:

1) To study the relationship between ten sub dimensions of Emotional Intelligence and Need Achievement.

2) To study the relationship between ten sub dimensions of Emotional Intelligence and four sub dimensions of Temperament.

3) To study the relationship between the ten sub dimensions of Emotional Intelligence and three sub dimensions of Character.

4) To study the relationship between the four sub dimensions of Temperament and Need Achievement.

5) To study the relationship between the three sub dimensions of Character and Need Achievement.

6) To study the relationship between the four sub dimensions of Temperament and three sub dimensions of Character.

7) To search the factors involved in Emotional Intelligence, Need Achievement, Temperament and Character.
The main objective of the study is to find out the common factors that account for the relationship between Emotional Intelligence, Need Achievement, Temperament and Character.

HYPOTHESES

To every problem, there may be more than one solution. A researcher’s effort is also directed towards a solution of the selected academic problem. Most of the time it is possible to make intelligent guesses about the solution of the problem. Such an intelligent guess of a tentative solution is known as “hypothesis”. As for that matter, the investigator formulated the following hypotheses.

In order to study the objectives the following hypotheses were formulated in the form of null-hypothesis:

1. There is no relationship between any sub dimensions of Emotional Intelligence and Need Achievement.

2. There is no relationship between any sub dimensions of Emotional Intelligence and any sub dimensions of Temperament.

3. There is no relationship between any sub dimensions of Emotional Intelligence and any sub dimensions of Character.

4. There is no relationship between any sub dimensions of Temperament and Need Achievement.
5. There is no relationship between any sub dimensions of Character and Need Achievement.

6. There is no relationship between any sub dimensions of Temperament and any sub dimensions of Character.

For objectives from one (1) to six (6), the investigator employed the product moment correlation. In order to test the hypotheses from one to six, product moment correlation was found between the four variables along with their sub dimensions.

In order to study the seventh (7th) objective the investigator used the rotated varimax techniques of Factor Analysis.

OPERATIONAL DEFINITIONS USED

The four variables selected for factor analytic study are:

1) Emotional Intelligence

2) Need Achievement

3) Temperament

4) Character

The operation definition of the four variables taken into consideration for the research is:

• EMOTIONAL INTELLIGENCE

'Emotional Intelligence is defined as the ability to monitor one's own and other's feelings and emotions to discriminate among others, and use this
information to guide one’s thinking and action. Emotional intelligence involves the ability to perceive accurately, appraise, and express emotions; the ability to access and /or generate feelings when they facilitate thoughts, the ability to understand emotions and emotional knowledge and intellectual growth.’

(Mayer and Salovey 1993)

On the basis of various definitions many sub dimensions have evolved of Emotional Intelligence. Therefore emotional intelligence can be defined in terms of sub dimensions like: Self Awareness, Empathy, Self Motivation, Emotional Stability, Managing Relations, Integrity, Self Development, Value Orientation, Commitment and Altruistic Behaviour.

**NEED ACHIEVEMENT (n-Ach)**

‘Achievement motivation (n-Ach) is defined as a disposition to strive for success in competition with others with some standard of excellence, set by the individual. Motive to achieve requires an act of some norms of excellence, long term involvement and unique accomplishment.’

(McClelland et al., 1953)

**TEMPERAMENT**

‘The temperament is generally described as biologically based components of personality which are set to be independent heritable, manifest early in life and involve pre conceptual biases in perception, memory and habit formation.’

(Cloninger et al., 1993)
On the basis of various definitions many sub dimensions have evolved of Temperament. Therefore Temperament can be defined in terms of sub dimensions like: Novelty Seeking, Harm Avoidance, Reward Dependence and Persistence.

• CHARACTER

‘Character dimensions are consciously learned components of personality which mature in adulthood and influence personal and social effectiveness by insight learning about self concepts.’ (Cloninger et al., 1993)

On the basis of various definitions of Character, it can be defined in terms of sub dimensions like: Self Directedness, Cooperativeness and Self Transcendence.
DELIMITATIONS OF THE STUDY

The delimitations of the study are as follows:

1) The sample was restricted to Aligarh city only.

2) Only Aligarh Muslim University departments of studies were approached for data collection and affiliated colleges were excluded.

3) The sample was targeted to the department of arts, life sciences, commerce and social sciences only.

4) The questionnaire had around 310 items which had proved quite elaborative to be filled up in one sitting.

5) If the items were less in each tool then other variables could also have been added for factor analytic study like spiritual intelligence, cultural intelligence, aptitude, creativity, study habits etc.
Chapter-2

REVIEW OF
RELATED LITERATURE
The review of related studies involves locating, studying and evaluating reports of relevant researches and articles, published research abstracts, journals encyclopedias etc. The investigator needs to acquire up to date information about what has been thought and done in a particular area. The researcher draws maximum benefits from the previous investigations, utilizes the previous findings, takes many hints from designs and procedures of previous researchers and formulates an outline for future research. The review of related studies provides the insight into the methods, measures etc. employed by others in the particular area. It provides ideas, theories, explanation, hypotheses of research, valuable in formulating and studying the problem at hand. It also furnishes indispensable suggestions related to the problem and already employed techniques to the investigator. However, for reviewing the related literature in an objective and scientific manner, the present investigator has followed the flowchart of activities in the review of related literature presented by Weirsma (1991).
Chapter -2

Review of Related Literature

The flow chart is as under:

1. Identify descriptors relevant to the problem
2. Identify sources such as an appropriate index or retrieval system.
3. Identify titles of potentially relevant reports.
4. Locate copies of reports to be reviewed
5. Separate the reports in order or into categories of relevance or importance. (Optional)
6. Delete non-relevant reports
7. Prepare abstracts or summaries for the reports containing relevant information
8. Write the review of the related literature.
9. Prepare a complete Bibliography
SIGNIFICANCE OF RELATED LITERATURE

Research takes the advantage of the knowledge which has accumulated in the past as a result of constant human endeavor. It can never be undertaken in isolation of the work that has already been done on the problems which are directly or indirectly related to study proposed by researcher.

A careful review of the researcher journals, books, dissertations, thesis and other sources of information on the problem to be investigated is one of the important steps in the planning of any research study. Review of the related literature, serves the following specific purposes:

1) A careful review helps the researcher in selecting the variables lying within the scope of his interest, in defining and operationalizing variables and in identifying variables, which are conceptually and practically important.

2) It helps the researcher in avoiding any duplication of work done earlier, especially when the stability and validity of its results have been clearly established.

3) It also gives the researcher an understanding of the research methodology which refers to the way; the study is to be conducted.

4) The review of the related literature helps the researcher to know about the tools and instruments which proves to be useful and promising in the previous studies.
5) The advantage of the related literature is also to provide insight into statistical methods through which the validity of research is to be established.

6) The final and important specific reason for reviewing the related literature is to know about the recommendations of previous researchers for further research which they have listed in their studies.

The investigator has quoted the studies in this chapter that have direct or indirect relevance with the proper study. The studies quoted in this chapter have been classified factorwise as follows:

- Studies related to Emotional intelligence
- Studies related to Need Achievement
- Studies related to Temperament and Character

RELATED STUDIES ON EMOTIONAL INTELLIGENCE

Wayne (1985) introduced the concept of Emotional Intelligence, as a faculty of consciousness. A rigorous theoretical and philosophical framework is developed to throw light on the nature and characteristics of emotion and emotional intelligence and to enable us to explore how actually to develop emotional intelligence - in self and in others by way of education. His work offers guidance in three ways: (1) by raising important issues and questions about emotions (2) by providing a language and framework to enable us to examine and talk about the issues and question raised and (3) by providing
Chapter -2

Review of Related Literature

corcepts, methods and tools for developing emotional intelligence. Since emotional intelligence involves relating creatively to fear, pain, desires, these states were explored in detail and guidance is offered on how to relate to them in emotionally intelligent ways.

Barnes and Thagard (1996) recent research has yielded an explosion of literature that establishes a strong connection between emotional and cognitive processes. Damasio presented a ‘somatic maker’ hypothesis which explained how emotions are biologically indispensable to decision. His research on patients with frontal lobe damage indicated that feelings normally accompany response options and operate as a biasing device to dictate choice. What Damasio’s hypothesis lacks is a theoretical model of decision making which can advance the conceptual connection between emotional and cognitive decision making processes. Barnes and Thagard confined Damasio’s somatic maker hypothesis with the coherence theory of decision put forward by Thagard and Millgram. The juxtaposition of Damisio’s hypothesis with a cognitive theory of decision making leads to a new and better theory of emotional decisions.

Mayer and Casey (2000) wrote that Educational Policy on Emotional Intelligence appears to be based on mass media science journalism than on actual educational and psychological research. Mayer and Casey provided an overview of the research areas of emotional intelligence, social and emotional learning and character education. They also examined the scientific evidence
for whether emotional intelligence underpins social and emotional learning and how emotional intelligence is related to success and whether it is central to character.

Nada (2000) studied whether there is a relationship between emotional intelligence and academic success. The population of the study was the 11th graders in Montgomery, Alabama. The sample was 500 11th graders— boys and girls— from public and private schools in Montgomery, Alabama. The sampling was stratified, making sure that schools, genders, races, socioeconomic statuses, and abilities are appropriately represented. The sample was given the BarOn Emotional Quotient Inventory (EQ-i) which is the first scientifically developed and validated measure of emotional intelligence.

Mayer et al. (2001) have claimed that emotional intelligence meets traditional standards for intelligence (J.D. Mayer, D.R. Caruso & P. Salovey 1999) R.D. Roberts, M. Zeidner and G. Matthews, questioned whether that claim was warranted. The central issue raised by Robert et al. concerning Mayer et al (1999) is whether there are correct answers to questions on tests purporting to measure emotional intelligence as a set of abilities. To address this issue (and others), the Mayer and his co workers briefly restate their views of intelligence, emotion and emotional intelligence. They then presented arguments for the reasonableness of measuring emotional
intelligence as ability, indicate that correct answers exist and summarize recent data suggesting that such measures are, indeed, reliable.

Roberts et al. (2001) investigated that performance based measures of emotional intelligence (EI) are more likely than measures based on self report to see emotional intelligence as a construct distinct from personality. A multivariate investigation Scale [MEIS; J.D Mayer, D. Caruso & Salovey 1999]. Participants (N=704) also completed the Trait Self Description Inventory (ISD), measure of the Big Five personality factors, Christal, 1994 R.D. Roberts et al) and the Armed Service Vocational Aptitude battery (ASVAB a measure of intelligence). Results were equivocal. Although the MEIS showed convergent validity (correlating moderately with the ASVAB) and the divergent validity (correlating minimally with the TSDI), different scoring protocols (i.e. experts and consensus) yielded contradictory findings. Analysis of factor structure and subscale reliability identified further measurement problems. Overall, it is questionable whether the MEIS operationalizes emotional intelligence as reliable and valid construct.

Warner (2001) commented on the article by R.D. Roberts, M. Zeidner and G. Matthews that there is now sufficient work to suggest that his construct or series of construct deserves series attention, but several questions remain as to adequate construct validation as well as to the emergence and development of these constructs. There is need to conduct convergent and divergent validity studies on a midlife sample that is likely to conduct
convergent and divergent validity studies on a midlife sample that is likely to show that optimal level of differentiation of the new constructs. The reference domain of cognitive intelligence should be constructed in a multiple construct manner, and the validation procedure should use confirmatory factor analysis and P.S. Dwyer's (1937) extension method.

Izard (2001) challenged the adequacy of the psychometric properties of the principal performance measure of emotional intelligence (EI). They raised doubt about the existence of emotion-related abilities that influence behavioral outcomes and social competence after controlling for general intelligence and personality. He agreed with Roberts et. al. that demonstrating the discriminant and predictive validity of a measure of emotional intelligence in the context of rival predictors would require more research he further agreed that the proponents of emotional intelligence that emotion-related abilities do exit and showed that such abilities in children account for unique variance in measures of adaptive behavior and social competence. However, evidence from developmental and clinical research suggested that these emotions related abilities and their influence on socioeconomically competence stem more from the direct effects of emotions than from a special form of intelligence.

Schutte et al. (2002) suggested a link between emotional intelligence and emotional well being. Emotional intelligence includes the ability to understand and regulate emotions, emotional well being includes positive
mood and high self esteem. Two studies investigated the relationship between emotional intelligence and mood, and between emotional intelligence and self esteem. The results of these studies indicated that higher emotional intelligence was associated with characteristically positive mood and higher self esteem. The results of the third study indicated that higher emotional intelligence was associated with higher positive mood state and greater state self esteem. The third study also investigated the role of emotional intelligence in mood and self esteem regulation and found that individuals with higher emotional intelligence showed less of a decrease in positive mood and self esteem after a negative state inductive using the Velten methods, and showed more of an increase in positive mood but not in self esteem, after a positive state induction.

Salovey et al. (2002) examined the relationship between perceived Emotional Intelligence (PEI), measured by the trait Meta Mood Scale (TMMS) and psycho-physiological measures of adaptive coping. The TMMS assess perceived ability to (a) attend to moods (Attention) (b) discriminate clearly among moods (Clarity) and (c) regulate moods (Repairs). Study I showed significantly positive associations between PEI and psychological and interpersonal functioning. In study II skills at mood repair was associated with less passive coping and perceptions of repeated laboratory stressors as less threatening: Clarity was related to greater increase in negative mood, lower cortisol release during repeated stress. In study III, lowered cortisol
and blood pressure responses to acute laboratory challenges. These findings suggested that psycho-physiological responses to stress may be one potential mechanism underlying the relationships between emotional functioning and health.

Ghorbai et al. (2002) studied Trait Meta Mood Scale (TMMS) to assess self reported emotional intelligence cross culturally as an input (attention to emotions), process (clarity of emotions) and system (repair of emotions) information-processing system. Iranian (N=231) and American (N=220) university students responded to the TMM along with measures of alexithymia, public and private self consciousness, depression, anxiety, self esteem and perceived stress. Negative correlations with alexithymia and expected linkage with all other variables documented the validity of the TMMS in both cultures. Most of the other measures correlated similarity in the two samples. However private and public self-consciousness displayed a stronger positive association in Iran. These two scales were also more predictive of adjustment in Iran and of maladjustment in the US. This difference perhaps reflected a poorer integration of the two dimensions of self consciousness within a presumably more individualistic American society. Iranians displayed positive relationships among the input processing, and output activity of the information processing model. For the American, however, greater input was associated with diminished processing and output. This unanticipated relative contrast seemed congevent with speculation that
the historical American emphasis on the self and individualism promoters positive, optimistic thinking. Over all, these data most importantly suggested that subtle cultural differences might exist in the processing of emotional information.

Zeidner et al. (2003) examined the development of emotional intelligence (EI) in childhood. It is proposed that ambiguities in conceptualizing emotional intelligence may be resolved by distinguishing multiple levels of emotion-regulation processes temperament, rule based skill acquisition, and self aware emotion regulation are differentiated as potential source of individual differences. They reviewed empirical studies that demonstrated multiple mechanisms linked to these levels. Temperament is shaped by genes, interacting with environmental influence such as patterns of infant caregiver interactions. Early, language development skill learning is governed by reinforcement and modeling processes. Subsequent insight learning is influenced by emotional discourse with parents and others, and cultural factors. Cognitive abilities may also influence individual differences in emotional function. At the same time the biological and sociocultural factors that influence emotional intelligence interact in complex and interrelated ways. They concluded by proposing a tentative investment model for emotional competences in children that accommodates the multifaceted nature of emotional intelligence. Lower level competencies may provide a
platform for developing more sophisticated emotion-regulation skills with competencies becoming increasingly differentiated over time.

Berrocol and Extremera (2003) explored the use of interaction between moral heuristics and emotional intelligence. The main insight presented in that the quality of moral decisions is very sensitive to emotions, and hence this may lead us to better understanding of the role of emotional abilities in moral choices. In doing so, we consider how individual differences (specifically, emotional intelligence) are related to moral decisions they summarized evidence bearing on some of the ways in which emotional intelligence might moderate framing effects in different moral tasks such as “The Asian disease problems” and other more real life problem like “a divorce decision”.

Coffer et al. (2003) examined the different facets of Emotional Intelligence, Alexithymia, and mood awareness. Undergraduate students (N=129) completed the Trait Meta Mood Scale (TAS-20) and the Mood Awareness Scale (MAS). A factor analysis revealed two dimensions, attention to and clarity to emotions that cut across all three instruments. These two extraversion and openness to experience portions of the NEO-FFI, and with performance on an emotional Stroop task. They discussed the implications for the conceptualization of broad constructs such as emotional intelligence and alexithymia, as well as the potential utility of more narrowly defined individual differences.
Kelly et al. (2003) described a collaborative action research project in one primary school that arose from a mutual interest in applying the concept of ‘Emotional Intelligence’. It involved an exploratory qualitative study of the Promoting Alternative Thinking Strategies (PATHS) curriculum. This is an approach aimed at promoting emotional competence in children and young people. The PATHS curriculum was chosen because of its clear conceptualization of emotion, it emphasized upon cognitive and developmental aspects and its research history. One class of 9 and 10 years olds took part in the project. Target children were selected from within this group for closer monitoring. The outcomes suggested that PATHS was rated very positively by class teachers, pupils and other staff involved in the project. Positive emotional, social and behavior changes at a class and individual levels were attributed to the effects of PATHS. Finally, the importance of developing a positive school ethos was highlighted as promoting these effects.

Verma and Alka (2003) examined the emotional intelligence among college students and the relationship to their general wellbeing. The sample consisted of 120 college students. Emotional intelligence measure by Schutte and PGI measure employed on postgraduate students. Two extreme groups were drawn on the basis of scores on emotional intelligence measure, High and Low scorer on emotional intelligence (male and female separately) were further compared regarding their general well being. High and Low group
differed significantly on their general well being. The male and female students, who scored higher on emotional intelligence scored significantly higher for general well being.

Dash and Behera (2004) examined the effect of emotional intelligence on teacher effectiveness at senior secondary level of education. The study conducted on senior secondary level teacher (N=100). From the analysis of the result, it was found that there is a positive effect of emotional Intelligence on teacher effectiveness (as overall and in all the dimensions) at senior secondary school level. The teacher effectiveness of various dimensions on differential between high and low emotional intelligent teachers are also found positively different.

Fielder and Bond (2004) compared psychological acceptance and emotional intelligence. In making this comparison, the effect of job control are accounted for, this is a work organization variable that is consistently associated with occupational health and performance. Results from 290 United Kingdom workers showed that emotional intelligence did not significantly predict any of the well being outcomes, after accounting for acceptance and job control. Acceptance predicted general mental health and physical well being but not job satisfaction, and job control was associated with job satisfaction only. Discussion focuses on the theoretical and applied implication of these findings. These included support for the suggestion that not controlling one's thoughts and feelings (as advocated) by acceptance may
have greater benefits for mental well being than attempting consciously to regulate them (as emotional intelligence suggests).

**Freshwater (2004)** discussed how the concepts of emotional literacy and emotional intelligence have gained a significant amount of coverage in the last decade. Emotional Intelligence is closely aligned with emotional literacy and can be described as being about a set of non cognitive abilities that influence the individual’s capacity to succeed in life. Emotional literacy and intelligence are considered fundamental, not just to the profession of mental health, but to any caring profession. The question and challenge to mental health professionals posed was how can health professionals work cooperatively with those who they come into contact with to raise the challenge of structuring emotionally literate curricula and health care organizations, thereby enabling practitioners to manage the helping relationships in a more insightful, deliberative and conscious way while also addressing matters pertaining to citizenship through emotional maturity.

**Akerjordet and Severinsson (2004)** used a hermeneutic analysis in their study. Four main themes emerged: relationships with the patients; the substance of supervision, motivation; and responsibility. It was concluded that emotional intelligence stimulates the search for a deeper understanding of a professional mental health nursing identity. Emotional learning and maturation processes are central to professional competence, that is, personal growth and development. In addition, the moral character of the mental health
nurse in relation to clinical practice is of importance. The findings implied multiple types of intelligence related to nursing sciences as well as further research possibilities within the area of emotional intelligence.

**Parker et al. (2004)** examined the relationship between emotional intelligence and academic achievement in high school. Students (N=667) attending a high school in Huntsville, Alabama completed the Emotional Quotient Inventory (EQ-i: YV). At the end of the academic year the EQ-I YV data was matched with student’s academic records for the year. When EQ-I YV variables were compared in groups who had achieved very different levels of academic success (highly successful students, moderately successful, and less successful based on grade point average for the year), academic success was strongly associated with several dimensions of emotional intelligence. Results revealed the importance of emotional and social competency on academic achievement.

**Gohm (2004)** commented focuses on the J.D Mayer et. al. model of emotional intelligence (EI) and its measurement instrument, the Mayer Salovey Caruso Emotional Intelligence Test, as it is the only ability scale available at that time. Gohm presented some comments on each of the seven myths of emotional intelligence discussed by G. Matthews et al. He saw as the best ways to move the field of emotional intelligence research forward. Three areas in which research is especially needed to support Mayer et al’s ability model are in testing behavioral predictions, testing processing
explanations and testing generalizability to other content. Emotional Intelligence theory needed further empirical support, but the most recent research showed that the ability model of emotional intelligence has potential to yield important explanatory and predictive power.

Oatley (2004) in his book "Emotions" investigated the history of emotions in western and other cultures as well as the evolutionary history of emotions and the history of emotional development across an individual's span. In clear and accessible language, the author examined key topics such as emotional intelligence, emotion and the brain and emotional disorders. Throughout, he interweaved three themes: the changes that human emotions have undergone from the past to the present, the extent to which we are able to control our emotions and the ways emotions help us discern the deeper layers of ourselves and our relationships.

Lagattuta (2005) investigated 4 to 7-year olds and adults (N=64) concepts about the emotional consequence of desire fulfillment versus desire inhibition in situations where people's desire conflict with prohibitive rules. Results revealed developmental increases in attributing positive or mixed emotions to story characters that makes power decisions and negative or mixed emotions to characters that transgress. These development changes in emotion predictions were accompanied by age related differences in emotion explanations. Whereas 4- and 5-year olds largely explained emotions in relation to the character's goals, 7 yr olds and adults further explained how
rules and future consequences influence emotions. Results are discussed in relation to connections among children’s psychological, deontic and future-oriented reasoning about emotions as well as the development of self control.

Brackett et al. (2005) assessed whether emotional intelligence is related to self assessed relationship quality, an ability test of emotional intelligence and measures of relationship quality were administered to 86 heterosexual couples in a university setting. Results indicated that female partners were significantly higher in emotional intelligence than male partners and that emotional intelligence scores were uncorrelated within couples. Two 2x2 multiple analysis of variance (performed separately for positive and negative outcomes) assessed how relationship quality measures differed across four different types of couples (high emotional intelligent female/high emotional intelligent male, low emotional intelligent female/ low emotional intelligent male). As predicted, couples with both partner low on emotional intelligence tended to have the lowest scores on depth, support and positive relationship quality and the highest scores on conflict and negative relationships quality. Counter to their hypotheses, couples with both partners high on emotional intelligence did not consistently have higher scores on positive outcomes and lower scores on negative outcomes than couples with one high emotional intelligent partner.

Zeidner et al. (2005) examined academically gifted (N=83) and nongifted (N=125) high school students from Israel to compare mean
emotional intelligence scores, various assessment procedures and relations between emotional intelligence and ability, across different populations. Participants completed the Mayer-Salovey Caruso Emotional Intelligence Test (MSCEIT) and Schutte Self Report Inventory (SSRI) and the Vocabulary subtest of the Hebrew version of the Wechsler Intelligence Scale for Children Revised (WISC-R-95). Gifted students scored higher on the MSCEIT, but lower on the SRRI. Findings suggested that individual differences are measure dependent, with the profile of scores variable across emotional intelligence assessment procedures. Concepts assessed by the MSCEIT resemble a type of intelligence, whereas findings with the SSRI are problematic from this perspective. They concluded with a discussion of measurements issues, alternative perceptive on tests of emotional intelligence, and suggestions for future research.

Jain and Sinha (2005) examined the predictive ability of emotional Intelligence (EI), trust and organizational support in general health. The sample consisted of 250 middle levels executives from Two wheeler manufacturing organizations. Results suggested that the dimension of emotional intelligence termed positive attitude about life predicted both factors of general health positive: (a) sense of accomplishment and contribution (b) botheration free existence organizational support predicted sense of accomplishment and contribution, where as vertical trust predicted botheration free existence, accompanied by the assertiveness and positive self
concept dimension of emotional intelligence. The implications of the results are discussed in forms of promoting the general health of employees through training on emotional intelligence skills and through the creation of an atmosphere of trust and recognition within the organization.

**Lyons and Tamera (2005)** examined the relationship of ability based emotional intelligence facets with performance under stress. They expected high levels of emotional intelligence would promote challenge appraisals and better performance, whereas low emotional intelligence levels would foster threat appraisals and worse performance. Undergraduates (N=126) performed mental math and videotaped speech tasks. Certain dimensions of emotional intelligence were related to more challenge and enhanced performance. Some emotional intelligence dimensions were related to performance after controlling for cognitive ability, demonstrating incremental validity. This pattern of findings differed somewhat for males and females.

**Graves et al. (2005)** studied terrorist attacks on Sep 11, 2001. The attacks were evaluated through a social cognitive processing theory framework. A total of 537 people completed an Internet based survey and 177 chose to write about their thoughts and feelings related to 9/11. People who wrote about their thoughts and feelings reported more total symptoms of 9/11 related distress and greater attentions to feelings. Linguistic differences emerged among participants classified by high, moderate or low distress and
were also evident in terms of participant’s emotional intelligence and perceived social environment.

Chan (2005) examined the relationship among emotional intelligence, social coping and psychological distress in a sample of 624 Chinese gifted students in Hong Kong. A mediation-effect model specifying that emotional intelligence has an effect on psychological distress mediated by social coping was hypothesized and testing using structural equation modeling procedures. For comparison, a direct-effect model and a direct – and – mediation –effect model were also fitted to the data. The results indicated that the mediation-effect model provided an adequate and good fit, suggesting that the effects of self-relevant and other – relevant emotional intelligence on psychological distress were mediated by avoiding coping and social-interaction coping, respectively.

Parker et al. (2005) examined the long term stability (32 months) of emotional intelligence related abilities over the course of a major life transition (The transition from high school to university). During the first week of full time study, a large group of undergraduates completed the EQ-i: Short; 32 months later a random subset of these students (N=238), who has started their postsecondary education within 24 months of graduating from high school, completed the measures for a second time. The study found emotional intelligence scores to be relatively stable over the 32 month time period. Emotional intelligence scores were also found to be significantly
higher at time 2; the overall pattern of change in emotional intelligence levels was more than can be attributed to the increased age of the participants.

Sibia et al. (2005) reported on the conceptualization and development of a measure of emotional intelligence in the Indian socio cultural context. The 34 items scale incorporates the four dimensions of emotional intelligence (identifying, assimilating, understanding and managing emotions) with the components of emotional intelligence discerned in Indian context social sensitivity, prosocial interaction, action tendencies and affective states.

Van Rooy et al. (2005) studied a common measure of emotional intelligence. It was administered to 275 participants (216 female) to examine how different score in a test of emotional intelligence. Differences were compared for gender, ethnicity and age. Results indicated that female scored slightly higher than males and emotional intelligence scores tended to increase with age. Group differences existed for ethnicity but favoured minority groups, migrating potential adverse impact concerns.

Lopes et al. (2005) found that emotion regulation abilities, measured on a test of emotional intelligence, were related to several indicators of the quality of individual’s social interactions with peers. In a sample of 76 college students, emotion regulation ability were associated with both self reports and peer nominations of interpersonal sensitivity and prosocial tendencies, the proportion of positive Vs negative peer nominations and reciprocal friendship nominations. These relationships remained statistically
significant after controlling for the Big Five personality traits as well as verbal and fluid intelligence.

**Grannon and Ranzijn (2005)** hypothesized that emotional intelligence would explain unique variance in life satisfaction beyond that predicted by personality, IQ and control variance. A community sample (N=191) aged 18-79 yrs (M=35.94; SD=14.17) was recruited. Because IQ showed no bivariate relationship with life satisfaction, IQ was not used in further analyses. After controlling for marital status and income, personality accounted for an additional 34.2% of the variance in life satisfaction and total emotional intelligence scores accounted for a further 1.3% (p<0.05). Further analysis revealed that the additional variance was explained by the emotional intelligence dimension of emotional management. In a competing analysis, emotional intelligence explained 28.3% of the variance at step 2, and personality accounted for a further 8.8% of the variance at step 3. It was concluded that emotional intelligence predicted some unique variance in life satisfaction, and that there was substantial conceptual overlap between emotional intelligence and personality. However, it was argued that, rather than being redundant, emotional intelligence may offer valuable insights to current conceptions of personality.

**Ioannis and Ioannis (2005)** investigated the relationship of emotional intelligence characteristics, such as perception, control, use and understanding of emotions, with physical and psychological health. In the first
study, 365 individuals filled in measures of emotional intelligence and general health. It was hypothesized that emotional intelligence would be negatively associated with poor general health. In the second study, 212 working adults completed the same measure of emotional intelligence and another measure, which apart from the standard information regarding physical and psychological health, provided also information about other health related behaviors such as smoking, drinking and exercising. It was also hypothesized that emotional intelligence would negatively correlate with smoking and drinking and positively correlates with exercising. The findings confirmed both hypotheses and provided further support on the claim that there is a relationship between emotional intelligence and health functioning.

Pradhan et al. (2005) examined the relationship between emotional intelligence and personal effectiveness. The study was conducted on 50 postgraduates (25 male & 25 female) from various departments of Delhi, University. The sample was administrated Emotional Intelligence Scale [Cooper & Sawaf, 1997] and Personal Effectiveness Scale [Udai Pareek, 1989]. The study reported that there exists a positive relationship between emotional intelligence and personal effectiveness.

Gupta and Kaur (2005) studied the emotional intelligence of prospective teachers. Further the study compared different groups on emotional intelligence. For this purpose a sample, comprising 200 B.Ed students was selected randomly from different educational colleges under the
jurisdiction of Guru Nanak Dev University, Amritsar. Results revealed that there were 9% male and 22% female B.Ed students with high emotional intelligence while 6 male and 12 female B.Ed students have low emotional intelligence. Male and female B.Ed students differed significantly on self-management dimension of emotional intelligence while Arts and Science stream B.Ed students differed on social skills dimensions of emotional intelligence. B.Ed. students of non working mothers were scoring more on internality while B.Ed students of working mothers were scoring more on empathy.

Bastain et al. (2005) investigated relationships between emotional intelligence and number of ‘life skills’ (academic achievement, life satisfaction, anxiety, problems solving and coping) among 246 predominantly first year tertiary students. Correlations between emotional intelligence and academic achievement were small and not statistically significant, although higher emotional intelligence was correlated with higher life satisfaction, better perceived problem solving and coping ability and lower anxiety. However, after controlling for the influence of personality and cognitive abilities, shared variance between emotional intelligence and life skills was 6% or less.

Schneider et al. (2006) examined the postulate that emotional intelligent people should be better at discerning physiological events. It was expected that individuals high in the facet of emotional intelligence,
particularly good emotional perceivers, would be better at perceiving their autonomic nervous system activities (i.e., heartbeats). Seventy-nine undergraduate completed an ability-based emotional intelligence measures, the Mayer-Salovey Caruso Emotional Intelligence Test (MSCEIT) and performed a visceral self-perception task (heartbeat detection). Although emotional perception was not related to discriminating autonomic activity reliably, the other emotional intelligence facets were related to discriminating autonomic activity reliably, the other emotional intelligence facets were related to visceral self-perception. The pattern of relationships was similar for males and female with some exceptions. This study provided support for the validity of the theory of emotional intelligence.

Elfendbein (2006) presented data on training to improve the accuracy of judging facial expressions of emotion, a core component of emotional intelligence. Feedback following judgments of angry, fearful, sad, and surprised states indicated the correct answers as well as difficulty level of stimuli. Improvement was greater for emotional expressions originating from a cultural group more distant from participants own family backgrounds, for which feedback likely provides greater novel information. These results suggested that training via feedback can improve emotion perceptions skills. Thus, the study also provided suggestive evidence for cultural learning in emotion, for which previous research has been cross-sectional and subject to selection biases.
Bay and Lim (2006) examined the relationships between the seven variables of Gardner's (1983) theory of Multiple Intelligence and the four components of the Emotional Intelligence construct [Goleman, 1995; Salovey & Mayer 1990]. 360 upper primary school students in Singapore (ages ranges between 10 to 11 yrs old) completed the Teelc Inventory of Multiple Intelligence (Teelc, 1995) and the Mayer-Salovey Caruso Emotional Intelligence Test Youth Research Version (Mayer, Salovey and Caruso, 2002). Several interesting findings from the research highlighted the correlates of Multiple Intelligence and emotional intelligence namely a negative correlation was found between interpersonal and intrapersonal intelligence, logical/mathematical intelligence is negatively correlated with interpersonal intelligence, and that no relationship was found between a student's interpersonal intelligence and their total emotional intelligence quotient.

Shulman and Hemenover (2006) conducted two studies (Ns=263, 116) to examine whether dispositional emotional intelligence predicted psychological health independent of personality. Participants completed measures of three emotional intelligence dispositions (perception, understanding, regulation), Big Five Traits, psychological well being and emotional distress. In study 2 participants completed the health scales a second time three months later results revealed that dispositional emotional intelligence is related to health outcomes cross sectionally (Study 1) and
predicted changes in health over time (Study 2) after controlling for the Big Five. These findings suggested that dispositional emotional intelligence is not synonymous with personality and predicts meaningful life outcomes above and beyond the Big Five Personality traits.

Champion and Hayslip (2006) investigated the differentiation of the construct of emotional intelligence in young and middle aged adults on the basis of hypotheses generated from differential emotions theory, discrete emotions functionalist theory, and empirical literature on age related changes in affective complexity and differentiation of abilities. Both age groups were characterized by the same set of comparably related dimensions. However, midlife adults reported significantly greater use of optimism as a mood regulation strategy than was reported by young adults. The study considered implications of possible structural continuity emotional intelligence in conjunction with mean increases in the use of optimism as a strategy for managing affect.

Paek (2006) examined the extent to which religiosity, operationalized as religious orientation and behavior, was related to perceived emotional intelligence in self report measures among 148 church attending adult christian. Results showed a positive correlation between intrinsic religious orientation and perceived emotional intelligence, and in particular, its subcomponent emotional understanding as well as emotional and cognitive empathy. Among behavior measures of religiosity, only emotional
understanding correlated with behavior indices, though perceived emotional intelligence overall varied significantly between groups of different levels of religious commitment, as indicated by church status and ministry service. While both attitudinal and behavior religiosity factors were significantly predictive of perceived emotional intelligence, the former proved to be more predictive than the latter.

Tett and Fox (2006) evaluated the factor structure of six core trait emotional intelligence facets from Salovey and Mayer (1990). They assessed the stability of the core factor structure across students (N=184) and worker (N=225) samples, and explored relations between core emotional intelligence dimensions and four proximal outcomes from the same model. A three factor structure, including Self Orientation, other Orientation and Emotional Sharing, replicated well across sample (fit indices range; 93-98 per sample). Relations involving emotional intelligence outcomes were less consistent. They concluded that trait emotional intelligence warrants assessment as specific facets rather than a global construct, core trait emotional intelligence structure may be stable across populations, and emotional intelligence applications are context specific.

Dhingra. R ; Manhas. S. and Thakur. N. (2005) studied the emotional quotient (E.Q), spiritual quotient (S.Q.) and social adjustment of Kashmiri migrant women. Further, it explored the relationship that exists between these variables. The sample comprised of 50 migrant women (25
each classified as socially well adjusted and maladjusted respectively) in the age group of 35-45 years, residing in Muthi camp at Jammu. The tools used for data collection included interview schedule, participant observation, Social Adjustment Inventory, Spiritual Quotient Scale and Emotional Quotient Scale. The results showed that majority (86%) of the women had moderate S.Q and (58%) had moderate E.Q. There existed a significant positive correlation between E.Q and S.Q. Social adjustment was positively and significantly correlated with E.Q. (for the entire and maladjusted group). This indicated that women scoring high on social adjustment had low E.Q and vice versa. Social adjustment on the other hand shared a significant negative correlation with S.Q. (for entire sample and maladjusted women). This showed that higher the social adjustment higher the S.Q. of the sample women.

Qualter et al. (2007) aimed to explore (1) whether pupils with high emotional intelligence (EI) cope better with the transition to high school; and (2) whether the introduction of an intervention programme to support the development of EI competencies can increase EI and self-worth, and so ease the negative effects of transition. Results suggested that pupils with high/average levels of EI cope better with transition in terms of grade point average, self-worth, school attendance and behaviour than pupils with low EI. In addition, pupils with low baseline EI scores responded positively to the
intervention programme, although a negative change was noted in pupils with high baseline emotional intelligence.

Meyer and Fletcher (2007) wrote a paper to: (a) review EI models and assessment inventories; (b) review research on EI in business, health, and sport; and (c) identify directions for future research and professional practice in sport psychology. Over the past five years, sport psychology researchers and practitioners have become increasingly vocal in their suggestions that emotional intelligence (EI) may be an important construct in the sport domain. Initial research in sport has been valuable for gaining preliminary insights, but use of disparate theoretical frameworks and assessment techniques confuses rather than clarifies potential links between EI and sport. Specifically, the use of different definitions, conceptualizations, and assessment inventories may yield different EI profiles of the same individual or team. This disparity has important implications for applied sport psychology, where there is a call for the use of theoretical paradigms, objective and subjective assessments, and empirical research to inform practice.

Halsell, S. S; Shumate, S. R and Blum, S (2007) studied that in the workplace, teamwork, collaboration, and excellent interpersonal communication are traits of successful leaders. Transformational leaders, utilizing their emotional intelligence (EI) abilities, are successful in employing these effective leadership skills. Using the dimensions of transformational
leadership and the domains of EI, a model was developed indicating the direct relationship between the two constructs. Additionally, a pilot study was conducted to demonstrate that students in hospitality undergraduate programs do not possess the level of EI needed to be successful transformational leaders. These findings demonstrated the need to incorporate EI instruction into orientation and training programs.

Keaten. J and Kelly.L (2008) investigated the relationship between family communication patterns, emotional intelligence and reticence. Participants (N = 296) responded to three measures: (a) the Revised Communication Patterns Scale (Ritchie & Fitzpatrick, 1990), (b) the Emotional Intelligence Scale (Schutte et al., 1998), and (c) the Reticence Scale (Keaten, Kelly, & Finch, 1997). An analysis of partial correlations indicated that the relationship between conversation orientation and reticence was mediated by emotional intelligence. A hierarchical regression on emotional intelligence revealed a significant interaction between conversation orientation and conformity orientation.

Jacobs. S; A. Kemp. A and Mitchell. J (2008) stated that in an environment of comprehensive reformation, teachers report to having high levels of work-related pressure and stress. They are expected to attend courses where they learn how to implement change but there is no mechanism to help them cope with this change induced stress. The purpose of the study reported was to examine elements of emotional-social intelligence that could
perhaps indicate ways in which teachers can learn to cope with change. Using an instrument based on the Bar-On model of emotional social intelligence, it was found that teachers have low self- and social awareness coupled with insufficient self-management skills. On the whole, the general mood is not positive enough to be optimistic and sufficiently self-motivated to set and pursue goals in order to be successful teachers. The results of the research indicated that there is a need to create mechanisms by which teachers can be trained and through which they can increase their own self- and social awareness, thereby improving their general mood and motivation.

Singh, P and Manser, P (2008) research focused on the perceived emotional intelligence (EI) of school principals and their leadership strategies affecting the job satisfaction of teachers in a collegial environment. The study found that teachers have expectations of empowerment and collaboration that will enhance their levels of job satisfaction. Teachers strongly believed that they would feel satisfied at school if their principals created the opportunity to develop their skills in a collegial environment that nurtures effective communication, healthy relationships, empathy and trust. The findings of the empirical investigation further confirmed that teachers wish to be led by school principals who are confident in their collegial leadership role and who maintain self-control, are adaptable and flexible and who face the future with optimism. Evidently, in order for a school to reach its full potential, teachers
must be exposed to working in a collegial environment, be satisfied in their jobs and be nurtured by principals with an appropriate EI level.

Cha. J; Cichy. R. F and Kim. S.H (2008) revalidated three dimensions of emotional intelligence (EI) and examined EI’s contribution to social skills and stress management skills among members of the National Automatic Merchandising (NAMA), representing executives of the vending, coffee services, and foodservice management industries. After performing Confirmatory Factor Analysis, a sample of 191 was split into high EI and low EI groups, based on respondent’s overall EI and each dimension of EI median scores. Differences between high and low EI groups for both overall and each dimension of EI scores in social skills and stress management skills were statistically significant, implying that the EI contributes to NAMA member’s social skills and stress management skills.

Lii. S; Wong. S (2008) investigated the impact of corporate entrepreneurship, work role characteristics, emotional intelligence and locus of control on the adjustment and commitment of expatriates. Using data from 152 expatriates working in the Taiwanese subsidiary companies in China Mainland, structural equation modelling results indicate that work role characteristics is the most significant predictor for the adjustment and commitment of the expatriates. Emotional intelligence only has impact on commitment. External locus of control has a positive impact on the adjustment, but a negative impact on the stay commitment.
Seaton. C. L and Beaumont. S. L (2008) examined patterns of differences in proactive, adaptive forms of positive adjustment as a function of identity processing style. Three hundred undergraduate students (98 men, 202 women) completed self-report measures of identity styles (informational, normative, diffuse-avoidant), identity commitment, curiosity/exploration, proactive coping, and emotional intelligence. All three identity styles and identity commitment were found to be related to curiosity/exploration, proactive coping, and emotional intelligence. These relationships were positive with identity commitment and the informational and normative styles. When the overlapping variance accounted for by identity commitment was controlled via hierarchical regression, all three identity styles significantly predicted emotional intelligence, with positive predictions from the normative and informational styles. However, only the informational identity style made a unique positive contribution to curiosity/exploration and to proactive coping. The results were discussed in terms of the role of identity processing style in positive adjustment.

Malekar. S. V and Mohanty. R. P (2008) described that researchers and human resource management professionals across the world are actively engaged in studying Emotional Intelligence (EI) and its applications in various organizational settings to improve the managerial performance. It is found from literature that very few studies relating to the application of EI among the school students are available. Malekar and Mohanty conducted an
empirical study to identify the important determinants of EI among school students in the metro city of Mumbai, and thus provide feedback to the parents, teachers, and other authorities to meet the future needs of the society in a better and more effective way.

Van D.; Cydney J. and Elias, M. J. (2008) investigated how the tendency to express forgiveness, purpose, and religiosity in a free-response essay relates to emotional intelligence and self-concept in 89 5th-graders (mean age = 10.84 years) from an urban public school district in New Jersey. The data were compared with self-reports on scales of emotional intelligence and self-concept. It was hypothesized that expressions of the predictor variables would correlate positively with emotional intelligence and self-concept. In contrast to expressions of purpose, which were common among students, expressions of forgiveness and religiosity were infrequent. Furthermore, forgiveness was not significantly related to either criterion variable; purpose was positively related to self-concept (but not to emotional intelligence); and religiosity was negatively related to emotional intelligence (but not to self-concept). Correlational analyses by gender revealed a possible trend toward more robust relationships being observed among females than males; however, the differences between the correlation coefficients observed among males and females failed to reach statistical significance.

Cheung, F. Y. and Tang, C. S. (2009) investigated how affectivity and emotional intelligence (EI) influence the use of emotional labor strategies
at work among 486 Chinese employees. Hierarchical regression analyses showed that negative affectivity was a significant correlate for surface acting, while EI was a significant correlate for both deep acting and expression of naturally felt emotion. Positive affectivity and EI interacted with each other to influence the adoption of various emotional labor strategies. For instance, individuals with positive affectivity and regulation of emotion, a key facet of EI, tended to use more deep acting and the expression of naturally felt emotion but less surface acting than employees who were low in regulation of emotion. Furthermore, mediation analyses revealed that EI was a mediator between positive affectivity and deep acting.

RELATED STUDIES OF ‘NEED MOTIVATION’

McClelland (1972) explained the effects of achievement motivation training in the school and it has been found that the achievement motivation training enhances the class work and life management talents rather that affecting achievement levels in a direct fashion.

McClelland (1973) in his paper entitled “Testing for competence rather than for intelligence” wherein he argued that traditional academic aptitudes, school grades, and advanced credential simply did not predict how well people would perform on the job or whether they would succeed in life. Instead he proposed that set of specific competencies including empathy, self
discipline and initiatives distinguished the most successful from those who were merely good enough to keep their jobs.

Agarwal (1974) made a study of the correlates of achievement motivation. The aim of the study was that high socio economic status subjects would have middle or low subjects. Boys would be significantly higher achievement motivation as compared to girls. The major findings of the study were that achievement motivation and SES variables were related significantly positively with each other. The effect of sex on achievement motivation was found to be independent of SES. All the four adjustment factors (i.e. home, school, emotional health and social adjustment) were related positively but insignificantly with achievement motivation in the boys group.

Mohan (1975) made a study of development of self concept relation to intelligence, learning ability, achievement and achievement motivation. The findings of the study were that ideal self for both sexes indicates rapid increase. In most of the differential growth curves, low and average groups indicated parallel growth, while high groups scored higher on all a variables of self, female showed more stability of self than males during adolescence.

Phutela (1976) conducted study on some selected motivational factors on relation to academic achievement and socio economic status among the college students in the state of Punjab. On the sample of 745, he found that through inter-correlation 41/66 and 25/28 on fear of failure scale on socio economic status has been found significant. And the differences in the mean
of high, average and low academic achievement have been found insignificant on the motivational factor except vocational aspiration.

**Abrol (1977)** conducted a study of achievement motivation in relation to intelligence, vocational interest, achievement, sex and socio economic status. The objective was that achievement motivation is higher among students whose parents belong to higher income groups than among those whose parents belong to lower income groups. The sample consists of 414 students of class X from six higher Secondary school from the urban area of Delhi. The results revealed that the SES of the family affected the level of Achievement Motivation i.e., higher the status, the higher was the motivation. The SES of the student affected correlation coefficients between the two variables; A significant and positive correlation of moderate value was found between achievement motivation and scholastic.

**Humphreys and Revelle (1984)** presented a model to relate the personality dimensions of introversion-extraversion, achievement motivation, and anxiety to efficient cognitive performance. It is demonstrated how these personality dimensions in combination with situational moderators (e.g., success, failure, time pressure, incentives, time of day, stimulant drugs) affect the motivational constructs of arousal and effort. A general information-processing model that accounts for the systematic effects of these motivational states on certain task components (sustained information transfer and some aspect of short-term memory) was proposed. Empirical
generalizations about task components in a structural model are combined, and testable predictions that differentiate alternative motivational hypotheses were derived.

**Bharathi (1984)** conducted a study of self-concept and achievement motivation of early adolescents. The study aimed self-concept measures in different age groups, different sex groups and different socio economic groups, and to observe the interaction, effects of age, sex, SES and achievement motivation. Rao SES scale (1993) and Mehta achievement motivation test was administered on 360 students at each age level. The results revealed that no age differences were found in self concept with respect to adjustment. The strength of achievement motivation increased significantly from 12 to 16 yrs.

**Chauhan (1984)** investigated a comparative study of achievement motivation, of schedule caste, schedule tribe students of Himachal Pradesh in relation to their intelligence and socio economic status. The objective was to find out the international effect of community and SES in relation to the achievement motivation of the student. The study was conducted on 600 students studying in grade X. The findings showed that schedule caste and schedule tribe students did not differ significantly in relation to their achievement motivation, the achievement motivation of student differed significantly at different levels of SES, sex and SES did not interact significantly in relation to the achievement motivation of students.
Kumar (1984) conducted a study of perception of classroom social climate with reference to prediction of dimension of achievement motivation of high school students. The sample consisted of 1251 students of class X. the students were administered the Trickett and Moos Classroom Environment Scale and Moon and Doyle Academic Motivation Inventory. The result of the study showed that there were positive and significant correlation between 9 dimensions of classroom social climate and 14 dimensions of achievement motivation, competition, rule, clearly, involvement. Teachers control, tasks orientation and teachers support contributed positively by to total academic motivation.

McClelland (1985) reviewed the research that demonstrates the importance of motivation, incentive value, and probability of success, independently measured, for predicting achievement performance and the frequency with which affiliation acts are performed. Both theory and research lead to the following conclusions: (1) motive strength, particularly in relation to the strength of other motives in the person, is the more important determinant of operant act frequency; (2) incentive value is the more important determinant of cognitively based choices; (3) motive strength and probability of success combine multiplicatively to predict response strength or probability; and (4) all determinants, plus this last interaction, together account for over 75% of the variation in operants such as affiliative act
frequency. The remainder of the variation is readily attributable to environmental opportunities.

Ahluwala (1985) made a study of factors affecting achievement motivation. The study aimed to know the effect of age, birth order, academic performance, parent’s education, parent’s occupation, and parent’s economic status separately on achievement motivation. The study was conducted on a sample of 200 children of 8 to 12 yrs. of age. The study showed that older age group subjects themselves as being less able less aspirating for greater ability and showed more dissatisfaction with their ability. No age difference were found in self concept with respect to adjustment, the strength of achievement motivation increased significantly from 12 to 16 yrs.

Schroth and Lund (1994) made a three fold study. The first objective was to investigate the relationships between basic traits of need achievement (n Ach) and sensation seeking (SS). The second purpose was to examine how situational factors affect subject’s scores on the Work and Family Orientation Questionnaire (WOFO). Need Achievement and Sensation Seeking Vs Scales. The final goal was to compare how the measures of n Ach and SS relate to performance on cognitive tasks. Subjects were randomly assigned to one of three conditions (achievement, relaxed and neutral) in which they received different instructions. Subjects then filled out the WOFO and SSV questionnaires. They were then given a black design test and creativity test. The former measured convergent thinking and the latter divergent thinking.
Fontain (1994) conducted a study on achievement motivation and child rearing in different social context the sample were 288 mothers of 6th Grader (10-13yrs.). The findings of the study were that more motivated children live in more rigidity structured families than the less motivated. They have less autonomy with exceptions of rural girls socio economic status and urban girls from a low socio economic status who have more autonomy than the low motivated ones.

Elliot and Church (1997) proposed the hierarchical model of approach and avoidance achievement motivation and tested in a college classroom with 178 undergraduates. Mastery, performance-approach, and performance-avoidance goals were assessed and their antecedents and consequences examined. Results indicated that mastery goals were grounded in achievement motivation and high competence expectancies; performance-avoidance goals, in fear of failure and low competence expectancies; and performance-approach goals, in achievement motivation, fear of failure, and high competence expectancies. Mastery goals facilitated intrinsic motivation, performance-approach goals enhanced graded performance, and performance-avoidance goals proved inimical to both intrinsic motivation and graded performance. The proposed model represented an integration of classic and contemporary approaches to the study of achievement motivation.

Harackiewicz et al. (1997) investigated personality predictors of achievement goals in an introductory psychology class, as well as the
consequences of these goals for the motivation and performance of undergraduates. Two dimensions of achievement motivation (workmastery and competitive orientations; J. T. Spence & R. L. Helmreich, 1983) predicted the goals endorsed. Individuals high in workmastery were more likely to adopt mastery goals and less likely to adopt work avoidance goals, whereas competitive individuals were more likely to endorse performance and work avoidance goals. Students adopting mastery goals were more interested in the class, but students adopting performance goals achieved higher levels of performance. The results suggested that both mastery and performance goals can lead to important positive outcomes in college classes.

Mueller and Dweck (1998) made a study on praise and its effect on motivation. Praise for ability is commonly considered to have beneficial effects on motivation. Contrary to this popular belief, six studies demonstrated that praise for intelligence had more negative consequences for student’s achievement motivation than praise for effort. Fifth graders praised for intelligence were found to care more about performance goals relative to learning goals than children praised for effort. After failure, they also displayed less task persistence, less task enjoyment, more low-ability attributions, and worse task performance than children praised for effort. Finally, children praised for intelligence described it as a fixed trait more than children praised for hard work, who believed it to be subject to improvement. These findings have important implications for how achievement is best
encouraged, as well as for more theoretical issues, such as the potential cost of performance goals and the socialization of contingent self-worth.

**Busato and Prins (2000)** directed their study towards an integration of intellectual ability, learning style, personality and achievement motivation as predictors of academic success in higher education. Correlation analyses partly confirmed and partly disconfirmed their expectations in a sample of 409 first year psychology students. Consistent with the literature, intellectual ability and achievement motivation were found to be associated positively with academic success. For the meaning directed, reproduction directed and application directed learning style, no positive association with academic success could be detected. The undirected learning style, however, appeared to be consistent negative predictor. For the Big Five Personality factors [extraversion, agreeableness, conscientiousness, neuroticism and openness to experience], a consistent, positive association for conscientiousness with academic success was found. The very first examination at the university came out as the most important predictor for academic success, even after two and three years of study.

**Covington and Mueller (2001)** wrote in their article the main purpose that is to advance an alternative perspective on the relationship between intrinsic and extrinsic motivation, and in particular to examine critically the assertion that these processes are antagonistic such that the will to learn for its own sake is inhibited by the presence of extrinsic, tangible rewards and
incentives such as school grades. The presumption of an antagonistic relationship largely depends on the theoretical perspective adopted. An alternative interpretation based on need achievement theory leads to distinctly different conclusions. Exploring this new perspective allows one to identify both the conditions under which intrinsic motives may coexist with extrinsic motives as well as to consider some of the means by which intrinsic motives and caring about learning can be stimulated in their own right in school settings.

Adele (2004) proposed conceptualization advances a new view that motivation is an area of giftedness in and of itself. Academic intrinsic motivation (i.e., enjoyment of school learning) is the domain focused upon in this conceptualization inasmuch as it has inherent ties to cognition, gifted intellect, and achievement. Research supported the following criteria, advanced as a beginning effort toward the development of a conceptualization of a gifted motivation construct: (a) significantly higher academic intrinsic motivation is evidenced by intellectually gifted compared to their comparison cohort; (b) academic intrinsic motivation is significantly, positively, and uniquely related to academic achievement above and beyond IQ; (c) academic intrinsic motivation evidences substantial continuity from childhood through adolescence; and (d) environment is significantly related to academic intrinsic motivation. The construct of gifted motivation serves heuristic purposes to
advance further inquiry and also has implications regarding the development and implementation of giftedness programs.

Schallert et al. (2004) described their interest in bringing together student's emotions and their motivation for academic work as these play out across the school year. They explored three main issues. First, they considered what some view as an incompatibility between student's use of established work habits (volitional strategies) and real enjoyment of academic tasks (what they called involvement). Rather than seeing these two approaches as diametrically opposed, they showed how volitional control can be useful in getting a students to experience involvement in a task. Conversely, they considered how involvement itself can be an incentive to student's use of volitional strategies. A second issue had to do with students realizing that long term goals may require different volitional strategies than short term goals. Finally, they discussed the need to encourage students to develop the habit of seeking enjoyment in academic tasks because the goal of enjoyment focuses them on the rewards of deep concentration rather than on the elation of having finished a task.

Broussard and Garrison (2004) studied the relationship between motivation and academic success as better established with older children and adults than with younger. They examined the relationship between classroom motivation and academic achievement in 122 first grade and 129 third grade children from a mid sized city in the southern United States. The findings
from the study were consistent with previous researches in that higher levels of mastery motivation and judgment motivation were found to be related to higher match and reading grades in third graders. However, higher levels of mastery motivation, not judgment motivation, were related to higher math and reading grades in first grades.

Brunstein and Maier (2005) examined how implicit and self attributed needs to achieve (labeled as n Ach and san Ach, respectively) combine with self referenced and norm referenced feedback to predict effort-related (task performance) and choice related (task continuation) indexes of student’s engagement in a mental concentration task. In Experimental I the authors found that in a task focused setting, task performance was predicted by the joint effect of self referenced feedback and n Ach, whereas task continuation was predicted by the joint effect of norm-referenced feedback and san Ach. In Experiment II the authors found that in an ego focused setting n Ach and san Ach interacted in the prediction of task performance but not of task continuation. Experiment III the authors found that the effects of n Ach and san Ach on student’s performance were mediated by the anticipated affective value of achievement outcomes. These findings were discussed in relation to a system approach to achievement motivation.

Lens et al. (2005) contributed in the theory that in order to understand and predict student’s achievement and persistent at learning activities, many contemporary motivational models consider how much students are motivated
for their school work. However, student's achievement and persistence might not only be affected by their amount of study motivation, but also by the motivation to engage in competing alternative activities, as suggested three decades ago by Atkinson and Birch in their 'Dynamics of Action' (1970). Building on this line of theorizing the present contribution indicated that it is not only instructive to consider the level of student's motivation for these competing activities, but also the type of activities they engage in that is leisure Vs working activities. Two studies demonstrated that whereas time spent on working activities is inversely related to study motivation, attitude, persistence and academic achievement, such relationships were not found for leisure time engagement. Spending sometimes on leisure time activities does interfere with optimal learning.

Jarvenoja and Javela (2005) reported the aim of the paper was to consider the sources of emotional and motivational experiences of secondary school students (N=18), 12-15 yrs old, during computer supported collaborative learning projects. They chose the concept of volition to frame the analysis of the various kinds of descriptions the students give of their emotional experiences in collaborative inquiry. Process oriented interviews were conducted during and after lessons, and questions dealing with students self related beliefs and feelings, and the learning environment were asked. The analysis was complemented with a micro-level video analysis of two students working processes. The results showed that student's descriptions of
their emotions had several origins, five different categories were created to describe the various sources of emotional experiences. The case descriptions demonstrated how students express and control their emotions, as well as their motivation.

Yeung and McInerney (2005) administered a survey on students from a school in Hong Kong (n=199) responded to 22 items asking about their school motivation and aspirations. Structural equation models found four school motivation factors consistent with the task, effort competition and praise scale of the Inventory of School Motivation, one education aspiration factor, one career aspiration factor, and significant relations of the motivational factors with the aspiration factors. Tasks and effort orientations were found to be stronger than the other orientations and to have relatively stronger associations with education aspirations, whereas task and praise has stronger associations with career aspirations. In examining potential change in student's goal orientations and aspirations through high school years, analysis of variance found that 7th Graders had significantly higher scores in task and efforts orientations and career aspiration than 9th Grades, and higher scores in praise orientation than 11th graders. The apparent drop in motivation scores from grade 7, especially in task and effort orientations, both pertaining to a mastery orientation dimension that has been assumed to be a major driving force for excellence, calls for urgent attention to student motivation in junior high schools classes.
Tulsi (2006) suggested achievement motivation to be very powerful in transforming individuals and societies. It propels humans and their world to a significant stage of advancement. On the contrary, agreed it sinks one to the lower levels of human concerns and accountability. Achievement motivation over a period of time becomes functionally autonomous and at this point gets closer to agreed.

National Academic of Psychology (2006) published that research have demonstrated that parents of high achieving children give emphasis on independence and achievement efforts, show affectionate treatment and low degree of restriction and control towards children (Li, 1974; Radin and Epstein, 1976, Winterbottom, 1958).

Sood (2006) investigated the educational choice in relation to academic stress, achievement motivation and academic self-concept among the adolescent of the intermediate or plus two stage in their academic career. Random sampling procedures were used select the sample. 180 students studying in the secondary year intermediate in the junior colleges of Hyderabad and Secunderabad formed the sample. They were from four educational stream viz BPC (Biology), MPC (Mathematics) Commerce and Humanities (Arts). There were 90 boys and 90 Girls varying in age from 17 yrs. 19 yrs. The academic Stress Scale (Rajendra and Kaliappan, 1991), Achievement Motivation Scale (Deo Mohan, 1985) and Academic self-concept Scale (Kumar, 1998) was administered to the sample. Data was
correlation and critical ratio. The results revealed that subjects from VPS stream had significantly more academic stress and the commerce subjects exhibited low academic stress. In the BPC group, the interpersonal difficulties were found to be the major source of their stress. The medical stress also has a high need to achieve while the commerce group showed significantly least-achievement motivation. The four educational stream subjects did not vary in academic self-concept. No significantly gender differences were found in academic stress, achievement motivation and academic self-concept in the subjects of four education streams. However, in the total sample, academic stress was negatively correlated with academic self-concept and achievement motivation and positively related to academic self-concept. Girls exhibited significantly achievement than boys.

**Pandey and Ahmad (2007)** aimed at measuring the achievement motivation of adolescents in relation to their sex difference, the investigator hypothesis that boys and girls differ in terms of their achievement motivation and find the hypothesis being rejected as the achievement motivation of boys and girls in all the factors is the same with girls not being inferior to boys in any factor: It was found that the girls are more motivated than boys in the factor 'Anticipatory Behavior'.

**Faye, C. and Sharpe, D. (2008)** investigated of the relationship between psychological need fulfillment, psychosocial development, and academic motivation in university students. Two models were tested. The 1st
model, derived from developmental theories, proposed that basic psychological needs of autonomy, competence, and relatedness would predict identity and intimacy achievement, which would, in turn, predict academic intrinsic motivation. A 2nd model, based on self-determination theory, proposed that identity and intimacy would predict academic motivation and that this relationship would be mediated by basic psychological needs. Results from path analyses supported the model derived from self-determination theory over the model derived from developmental theories. Competence and identity were found to be the 2 constructs most strongly associated with academic motivation. These findings supported the view that identity formation plays a critical role in facilitating academic motivation in university.

Pekrun, R; Elliot, A. J. and Maier, M. A. (2009) proposed a theoretical model linking achievement goals and achievement emotions to academic performance. This model was tested in a prospective study with undergraduates (N = 213), using exam-specific assessments of both goals and emotions as predictors of exam performance in an introductory-level psychology course. The findings were consistent with the hypotheses and supported all aspects of the proposed model. In multiple regression analysis, achievement goals (mastery, performance approach, and performance avoidance) were shown to predict discrete achievement emotions (enjoyment, boredom, anger, hope, pride, anxiety, hopelessness, and shame), achievement
emotions were shown to predict performance attainment, and 7 of the 8 focal emotions were documented as mediators of the relations between achievement goals and performance attainment. All of these findings were shown to be robust when controlling for gender, social desirability, positive and negative trait affectivity, and scholastic ability. The results were discussed with regard to the underdeveloped literature on discrete achievement emotions and the need to integrate conceptual and applied work on achievement goals and achievement emotions.

RELATED STUDIES OF 'TEMPERAMENT' and 'CHARACTER'

Gaines et al. (1992) studied the child temperament; child temperament has been of interest to researchers, clinicians and caregivers for many years. The New York Longitudinal Study identified nine dimensions of child temperaments, several additional investigations have contributed to the development of this important construct. These studies and the subsequent development of temperament instruments has stimulated debate, research and opposing theories currently, there is not a single definition of temperament and there are many psychometric problems with the available temperament instruments.

Beauvale and Tokarz (1996) studied if there is any relationship between the motivation system of research workers (the main motives for scientific work) and temperament. The answer to the question was sought
using a hierarchical factor analysis of scores on the Researcher's Work Inventory of Kocowsk and the Strelau Temperament Inventory (STI) of a sample of young scientific workers. One secondary and three primary factors were obtained. The secondary factor was identified as self-actualization or power motivation. This was a composite of intrinsic cognitive or achievement motivation (primary factor I), and will or conscientiousness (primary factor II). The factor will or conscientiousness was positively connected with mobility and strength of excitation (STI scales). A strong nervous system seems to be necessary for successful scientific work combining efficiency and creativity.

Sabini and Silver (1998) in their book, 'Emotion, Character, and Responsibility' examined a conflict in the way that psychologists, philosophers, and ordinary people think about character. Most of them share an intuition that emotions are central to who they are and the characters they have, even though emotions are unchosen. Yet one also shares the intuition that action, choice, and responsibility are what count about ones characters. Sabini and Silver dealt with this conflict by exploring the relations between the chosen and unchosen, moral and nonmoral, in sincerity, loyalty, sympathy, shame, guilt, and embarrassment as they affect our characters. They resolved to find an aesthetic as well as moral basis of character.

Barbara Keogh's major contributions on temperament in childhood, to the temperamental area, have been a starting point to discuss some continuing
issues in temperament and education in a book by Rothbart and Jones (1999). They have argued that the shorter list of temperament dimensions makes it feasible for educator to consider temperament-related classroom strategies that will apply to groups of children rather than to single individuals. Finally, the book discussed the applicability of concepts of temperament to the schooling of children with developmental disabilities.

Calabrese and Roberts (2002) described character at the core of leadership. Leaders with virtuous character provide benefit to their schools and communities. Whereas, the leaders with character flaws create harm for themselves as well as for their community. The ethical lapses among teachers, principals and superintendents create an even larger issue when one considers the fiduciary trust placed in educators by the public. Character development requires behavioral change as well as knowledge acquisition. Incorporation behaviour changes into university administrator preparation programs require faculty to consider recent findings in neuroscience as how the brain learns and the incorporation of these findings into program design and instruction.

Harman and Doris (2003) are of the opinion that experimental studies of human behaviour give good grounds for denying the very existence of moral character. This research, according to the authors showed human behaviour to be dependent not on character but mainly on one’s “situation”. Harman and Doris developed a number of criticisms of this view, among
them that social science experiments are ill suited to study character, in so far as they do not estimate the role of character in continuously shaping the direction of one's life including what situations one is apt to get into the first place.

Marteinsdottir et al. (2003) investigated personality dimensions by means of the Temperament and Character Inventory (TCI) in subjects with social phobia with or without a co-existing avoidant personality disorder. Thirty one individuals with social phobia were recruited through advertisement and diagnosed with the structured clinical interview for psychiatric disorder. The social phobia subjects as compared to healthy controls of the same age, scored significantly higher in the TCI dimension measuring harm avoidance but significantly lower in persistence, self directedness, cooperativeness and self-transcendence. Presence of avoidant personality disorders in the social phobia subjects was associated with significantly higher harm avoidance particularly on the subscale shyness with strangers. In conclusion, individuals with social phobia were characterized by high comorbidity of avoidant personality disorders and deviations in TCI personality dimensions. Enhanced harm avoidance was the most prominent personality trait. The observed deviations in TCI dimensions were primarily related to the social phobia itself and not to the presence of concurrent personality disorders.
Gillespie et al. (2003) determined whether Cloninger's revised 7-factor model of personality showed incremental validity over his four dimensions of temperament. A sample of 2517 Australian twins aged over 50 between 1993 and 1995 returned completed self-reported measures of Self-directedness, Cooperativeness, and Self-transcendence from Cloninger's Temperament and Character Inventory. Many of these twins had participated in a 1988 study containing Cloninger's temperament measures of Harm Avoidance, Novelty Seeking, Reward Dependence and Persistence. Contrary to theoretical expectations, univariate analyses revealed that familial aggregation for the character dimensions could be entirely explained by additive gene action alone. Although temperament explained 26, 37 and 10% of additive genetic variance in Self-directedness, Cooperativeness and Self-transcendence, respectively, seven genetic factors were required to explain the genetic variance among the TPQ dimensions, and almost all of the non-shared environmental variance was unique to each dimension of character. The results indicated that the inclusion of all seven dimensions in a taxonomy of personality was warranted.

Vaidya (2004) studied the identification of the relative influence of temperament in choosing a specialty in medical profession. A Sociodemographic and personal experiences questionnaire along with 240 questions of temperament and character inventory was distributed to 682 medical students. The scores for 6 medical specialties were examined using
analyses of variance, multivariate of variance and discriminate analysis. And the result revealed that the students choosing surgery, emergency medicine, and obstetrics and Gynecology were higher on novelty seeking than other students. Future surgeons were lower in harm avoidance and reward dependence than the others students choosing primary care specialties, emergency medicines and obstetrics/gynecology were all high on reward dependence, with pediatrics being highest.

Aron (2004) in his book 'The impact of adult temperament on closeness and intimacy' discussed intimacy and closeness in the light of some of the current research on adult temperament, which is defined as inborn biological differences affecting style of behavior in a wide variety of situations. In his book closeness is viewed as an emotional, cognitive and behavioral phenomena and intimacy is conceptualized as a subset of closeness that is the emotional experience of it. Aron discussed about adult temperament, and then proceeded to research and theory regarding its relationship to closeness by considering one such temperament trait, referred to as sensory processing sensitivity and three types of effects that the characteristics associated with this trait, or any trait, have no closeness. These three effects are actor, partner, and relationships effects. Although the chapters are predominately theory based and research oriented, it also benefits from the author's clinical experience when it has seemed useful in predicting research hypotheses.
Carr (2004) discussed that it is a central to virtue ethics both that morally sound action follows from virtuous character, and that virtuous character is itself the product of habitual right judgment and choice that, in short, we choose our moral characters. However, any such view may appear to encounter difficulty in those cases of moral conflict where an agent cannot simultaneously act (e.g) honestly and sympathetically, and in which the choices of agents seem to favour the construction of different moral characters. Carr argued against counter arguments, for a view of virtue ethics which embraces the diversity of moral character.

Todd and Freier (2004) described a Gestalt model of character structure and function from the point of view of Gestalt process theory in coordination with E. Tulving’s (1985) concept of procedural memory from cognitive and development psychology. Most theories of behavior and therapy have tended to focus on why behaviors are present. By contrast, the theory and practice of Gestalt therapy has focused primarily on how behaviors are present. Current developmental research was used to clarify how character as an operating system is developed. This conceptual framework permits a description of how character functions and has implications for creating change in psychotherapy.

Rothbart (2004) suggested historically, developmental psychology has been split into the areas of social development and cognitive development with the cognitive area most recently dominating the field, nevertheless, basic
questions about development often require more integrative approaches, cutting across social and cognitive areas, while taking advantage of recent discoveries in psychobiology and our knowledge of general principles of development. Presenting recent advances in the study of temperament as an example, it is suggested that rather than emphasizing distinctions between areas, it may be preferable to offer general training in developmental psychology, with a student’s specializations organized around research questions rather than area boundaries. Advances in temperament research include refinement of our understanding of basic dimensions of temperament, identification of the construct of effortful control, and making links to the neuroscience of development.

Cloninger et al. (2004) studied the nature of the relationship between personality and bipolar affective disorders. They have studied personality in bipolar patients by using the Temperament Character Inventory (TCI). And it was found that bipolar patients were significantly higher in harm avoidance (HA) and lower in reward dependence (RD), self directedness (SD), and Cooperativeness (C) than controls. Bipolar patients are more fatigable, less sentimental, more independent, less purposeful, less resourceful less empathic, less helpful, less pure heated and have less impulse control than controls.

Blair et al. (2004) investigated the contribution of temperament styles and emotion coping strategies to the development of preschooler’s social
competence and behavior problems. The ability to cope with emotion was found to be more important than temperament alone in the development prosocial behavior. The results indicated that the use of passive coping strategies may play a significant role in the development of maladaptive behaviors in young children. Specifically, the use of passive coping strategies was found to moderate the relationship between temperament dimensions in predicting externalizing and internalizing maladaptive behaviors. When combined with extremely negative temperamental dispositions, just facing the problem was discovered to be beneficial for preschoolers, which encourages the use of preventive or interventional strategies in the classroom to develop constructive emotion regulation skills in young children.

Richter et al. (2004) aimed to study a cross-cultural comparison of personality traits between individuals from two very different cultures and refugees who resettled several years before from one to the other. Four hundred forty four Swedish individuals of the normal population; and 100 Iranian refugees in Sweden, and a group of 335 individuals from Tehran, capital of Iran, were investigated by means of the Temperament and Character Inventory (TCI). Iranians are those that are most frequently correctly classified followed by the Swedish based on temperament scores by means of a Discriminance analyses. Iranian refugees in Sweden were classified to about 50 per cent as Swedish and to slightly more then one-third as Iranians. Especially concerning character, 4 per cent only could be
correctly classified as refugees. The results gave some perspective on the adaptation process and personality changes in refugees several years after resettlement in another country with a complete different culture.

Sarros et. al. (2005) examined self-assessed character among Australian managers in relation to selected demographic variables of these managers, and to establish the initial psychometric properties of the Virtuous Leadership Scale used to measure dimensions of character. Data were collected through a national online survey of managers utilizing the membership base of the Australian Institute of Management. The findings revealed that self-assessed character is multifaceted and varies across specific demographics (gender, age, level of seniority, years as an executive), and is subject to some degree of social desirability bias. Further research is warranted to explore these outcomes and relationships. The study was limited by national culture and management self-report data that need verification across different national cultures, work settings, and work groups. The findings indicated that integrity is a key character attribute reported by managers, but the results requires further validation across industry sectors and other organizational contexts. The findings suggested the need for further examination of character as an important component of leadership success, strategy, and impact. The study identified attributes of character linked to selected demographic (personal and professional) variables of practicing
managers, and points the way for further examination of the part character
has to play in the leadership of organizations.

Chang (2005) explored the temperamental characteristics of Chinese
youth, age 9-12, in Beijing, People’s Republic of China [PRC] using the
revised Early Adolescent Temperament Questionnaire (EATQR Ellis &
Rothbart, 2001). An exploratory factor analysis was conducted on the
complete responses from 687 children and 428 mothers. The factorial
structure based on Chinese children’s self reports include seven first order
and three second order factors, differing from Ellis & Rothbart’s structure
(2001). Significant gender differences were found in both the children’s and
mother’s reports. An analysis of reports by mothers indicated an interaction
between gender and only child status affecting the temperamental in the
formation of their respective children’s personalities, but rated it less
important than non- individualistic factors such as parental discipline and
school education.

Lapstey and Power (2005) in the title of their work gave the premise
and structure. The central premise is that important insights about character
and character education will be forthcoming only when there are adequate
advances in character psychology. How one understanding the moral
formation of persons must be conditioned on what we know about personality
and development. How we manage the moral education of character must be
conditioned on what we know about selfhood and identity. They examined
critical issues in character psychology, where character psychology is understood broadly to include not only psychological literatures that address moral functioning, but also recent trends in ethic that take these literatures seriously as a point of departure for ethic theory. They described the challenge of character education in several contexts, including schools, families and sports. And they also identified a number of unifying themes evident among the various chapter along with five prospects for productive interdisciplinary work in character psychology and education.

Kobori et al. (2005) studied the individuals temperament of two perfectionism traits in 428 Japanese undergraduate students using the Multidimensionnal Perfectionism Scale (MPS) and Temperament and Character Inventory (TCI). The results showed that self oriented perfectionism is associated with the temperamental characteristics of low novelty seeking, high reward dependence, and high persistence. In contrast, socially prescribed perfectionism is associated with low novelty seeking and high harm avoidance. Hierarchical regression analysis revealed that these temperaments primarily predicted self oriented perfectionism, controlling for socially prescribed perfectionism. These temperamental characteristics did not predict socially prescribed perfectionism when self oriented perfectionism was controlled.

Chang and Burns (2005) examined how individual differences in children’s temperament and motivation were related to attention skills in
children from economically disadvantage families. A total of 73 mother-child dyads participated in this study. Children were the ages of 3 and 5, and all attended a Head Start analysis, the hypotheses that effortful control (an aspect of temperament) and motivation would individually and collectively relate to attention skills were supported. The study supported the importance of understanding attention as a multifaceted concept (Posner & Peterson, 1990) that relates to cognitive, socio emotional and motivational systems.

Puttonen et al. (2005) studied Cloninger’s psychobiological model of temperament and character postulates that each of the temperament dimensions is associated with a specific emotional experience, depending on the situational cues, in a variety of challenging experimental tasks. The participants were 91 healthy young adults whose temperament was assessed with the temperament and character inventory (TCI). The subjects rated their emotions during each tasks and rest period using an adjective checklist. Novelty seeking was associated with dullness during monotonous and aversive situations and with a higher level of pleasantness during the initial baseline period and the appetitive situation. Harm avoidance was associated with higher levels of fear and unpleasant emotions and lower levels of positively valenced emotions. The study provided support for the validity of Cloninger’s temperament dimensions as predictors of emotions responses during different challenges. Especially, novelty seeking and harm avoidance appear to have a significant influence on emotional experiences.
Ramos et al (2005) examined the child temperament as a moderator of the link between family conflict and child behavior problems. Temperament assessed in early childhood was used to predict the relation between family conflict and externalizing behavior problems measured during the early elementary school year. For children with difficult temperament, a strong association between subsequent family conflict and behavior adjustment was predicted; for children with easy or immediate temperaments, low to moderate associations were predicted. These hypotheses were tested across 3 temperament groups (easy, intermediate, and difficult). Data were collected from 108 children and families participating in the Fullerton Longitudinal Study of ages 3 though 10 yrs. Consistent with the hypotheses, the data provided support for the moderating role of temperament in predicting the association between family conflict and child externalizing behavior problems. These findings suggested that temperamental difficultness operates as a vulnerability factor with respect to the development of children's behavior problems in families with high conflict.

Gleason et al. (2005) investigated the influence of three components of temperament [activity level, impulsivity and soothability] on children's friendships. Children (40 girls, 35 boys) aged 43 to 69 months responded to a socio-metric interview and teachers provided temperament ratings. The probability of children choosing particular classmates as friends was evaluated based on the genders and temperaments of the dyed. A logistic choice model
revealed that the choice of friends highly soothability. Furthermore, the gender of the chooser and the activity level of the friend interacted such that girls whose low activity level friend and boys whose high activity level friends. In addition, the likelihood of a child being chosen as a friend based on gender and temperament was significantly corrected with popularity for girls, but not for boys.

Slobodskaya et al. (2005) examined the predictive power of three temperament/personality measures—the EPQ which assessed dimensions of Eysenck’s model, the Gray-Wilson Personality Questionnaire (GSUPQ) which assessed dimensions of Gray’s model, and the revised Dimensions of Temperament Survey (DOTS-R) - on adjustment measured by academic achievement and mental health with a sample of 255 Russian adolescents. Academic achievement in boys was predicted by parent’s education level and intact family; in girls, parent education, DOTS-R Flexibility and General Rhythmicity; together accounted for 31% of variance. Conduct problems in boys were predicted by GWPQ Behavior Activation and DOTS-R general Rhythmicity; in girls, the only significant predictor was flexibility. Emotional problems were influenced by living conditions and GWPQ Behavioral Inhibition. Total Difficulties were predicted by living conditions, flexibility and psychoticism.

Grazyna and Nazan (2006) focused on children’s conscience, an inner guiding system responsible for the gradual emergence and maintenance of
self-regulation. They reviewed research on two major sets of influences that predict individual differences in moral emotions and moral conduct: biologically based temperament and socialization in the family. Two inhibitory systems of temperament—fearfulness and effortful control—and several features of socialization, including the style of parental discipline and the quality of the parent-child relationship was explained. Early conscience is an important early personality system, coherently organized, relatively stable over time, and subject to individual differences that emerges as a result of a complex interplay between children's temperamental individuality and socialization in the family.

Niklas et al. (2006) examined the relationship of Cloninger's temperament factors—Novelty Seeking, Harm Avoidance, Reward Dependence, and Persistence—to perceived threat and stress and performance appraisals during different challenges, i.e., mental arithmetic, the reaction time task, and three public speaking tasks, among 97 young adult men and women. Temperament was measured by the Temperament and Character Inventory. The results showed that, although some of the predictions made by Cloninger's model were confirmed, some were unsupported. The results revealed also some associations between temperament and cognitive appraisals that were intelligible, but not predicted by Cloninger's model. There were considerable domain specificity and gender differences in the associations found. Cloninger's temperament dimensions are related to threat,
stress, and performance appraisals, thereby influencing individual's stress vulnerability, adjustment, and personal functioning.

Cuneyt and Bilge (2006) studied to evaluate the prevalence of suicide in Turkish male substance dependents, and to investigate the relationship of suicide attempt history with childhood abuse and neglect, alexithymia, and temperament and character dimensions of personality. Rates of physical, emotional abuse and neglect, self-mutilation and being alexithymic were found to be higher and ages at first substance use and regular substance use were lower in the group with suicide attempt history (SAH). Mean scores of “difficulty in identifying feelings” (DIF) and “difficulty in describing feelings” (DDF), subscale EOT of Childhood Abuse and Neglect Questionnaire, Toronto Alexithymia Scale (TAS-20) TAS-20 were higher in the SAH group. Among temperament and character dimensions of the TCI, only “Self-directedness” and “Cooperativeness” were lower in (SAH) and there were no significant differences between groups in terms of other subscales. Age and Self-directedness score of TCI were determinants for suicide attempt. In particular, young drug users with low Self-directedness scores could be the target population in order to prevent suicidal behavior. The study also suggested that in substance-dependent patients, in the background of all suicidal behavior, childhood abuse and neglect must be evaluated.
Revell and Arthur (2007) explored student teacher’s attitudes to and experience of character and values education in schools and looks at their assessment of the opportunities provided by schools for the development of character. The data from over 1000 student teachers in two universities indicated that while they are overwhelmingly in favour of developing their skills in the area of moral development, their opportunities to do this are uneven and are dependent on their course and their teaching placement school. Whilst character education is seen as part of citizenship education in the school curriculum in England, the data indicated that it is not part of the formal curriculum of teacher education.

Greenway, A. P et. al. (2007) described that people use both positive and negative religious coping strategies, and do so in the context of how they perceive their relationship with God, which means that both require individuals to acquire some degree of self transcendence. The study attempted to show that self transcendence is incorporated in both positive and negative coping strategies. The sample consisted of 190 practising Anglicans and Catholics. They completed RCOPE from which two variables measuring positive coping and negative coping were then constructed, the Self Transcendence Scale (ST) the item content of which is largely positive and the Spiritual Transcendence Scale (STS) of the Temperament and Character Inventory, which acknowledges negative as well as positive experiences. They also completed a scale, God Cares, measuring a person's perception of
God as caring. In a series of hierarchical regression analyses, all three variables, the perception of God as caring, and both the positive and negative coping variables predicted ST and all of its subscales except one. The positive coping variable largely predicted STS, the perception of God as caring variable less so and the negative coping variable not at all. The findings were interpreted as suggesting that both perceiving God as caring and using positive coping strategies limit the problematic feelings associated with negative coping strategies, allowing the self transcendence implicit in them to appear.

**Rudasill. K. M and Konold. T. R (2008)** research findings indicate that children's social competence has been linked to successful transition to formal school. The purpose of this study was to examine the contributions of children's temperament to teacher's ratings of their social competence from kindergarten through 2nd grade. Children \( N = 1,364 \) from the National Institute of Child Health and Human Development Early Child Care Research Network participated in this study. Mothers rated children's shyness, attentional focusing, and inhibitory control with the Children's Behavior Questionnaire at 4½ years, and teachers rated children's social competence with three subscales (cooperation, assertion, and self-control) of the Social Skills Rating System at kindergarten, 1st, and 2nd grade. Latent growth curve analysis indicated that both shyness and effortful control contributed to children's social competence. Bolder children were likely to have higher
assertion ratings, and shyer children with greater attentional focusing were likely to have higher assertion ratings. Shyer children and children with greater inhibitory control and attentional focusing were likely to have higher teacher ratings of self-control and cooperation. Practice or Policy: Findings highlighted the importance of considering child temperament characteristics when understanding children's social competence and successful adjustment to kindergarten. Information might help parents, preschool teachers, and early elementary teachers to prepare children who may be at particular risk for lower social competence.

Yagmurlu, B and Sanson, A (2008) investigated the direct and indirect roles of parenting, child temperament and sociocultural context in predicting prosocial behaviour as identified by behavioural assessments and parent and teacher ratings. Comparisons of Australian children and Turkish children living in Australia allowed examination of cultural similarities and differences in levels of prosocial behaviours and in their predictors. Participants were 153 Australian 4-6-year-old children and 58 children with a Turkish background recruited from childcare centres serving low- and middle-class communities. Turkish and Australian children were similar in their levels of prosocial development, but the factors that predicted prosocial behaviour were somewhat different. Hierarchical multiple regression showed that maternal warmth and child persistence predicted prosocial behaviour for the Australian sample. For the Turkish sample, obedience-demanding
behaviour had a facilitating effect upon prosocial development. The results are discussed in relation to cultural norms and their impact on children through parenting practices.

Paulussen-Hoogeboom, M. C et. al. (2008) study focused on relations between preschool-aged children’s perceived “difficult” temperament (defined as high negative emotionality) and observed maternal sensitive responsiveness in the context of maternal parenting stress. **Design.** Participants were fifty-nine 3-year-olds and their mothers. Mothers completed questionnaires for child temperament and parenting stress. Maternal sensitive responsiveness was observed during a structured play session in the home three to five months later. **Results.** The relation between higher levels of child negative emotionality and greater maternal sensitive responsiveness was qualified by an interaction between parenting stress and sex of the child. In boys, higher levels of negative emotionality were associated with greater maternal sensitive responsiveness, but only for mothers experiencing low parenting stress. In girls, higher levels of negative emotionality were associated with greater maternal sensitive responsiveness, but only for mothers experiencing high parenting stress. **Conclusion.** The degree to which mothers from middle to high socioeconomic backgrounds can adapt their behavior to the needs of their children depended on child negative emotionality, experienced parenting stress, and the sex of the child.
Li. I et. al (2008) collected data from 211 elementary school children in central Taiwan over four years, the role of temperament in science achievement was examined with multivariate analysis of covariance (MANCOVA) with repeated measures design. The results revealed that the student's science achievement is stable over time. The task orientation characteristics (i.e., distractibility, hyperactivity, and persistence) identified by previous research as important in mathematics and reading achievement are not consistent with the findings of this study that although the impacts of distractibility and persistence are significant, the simple effect of activity level on science achievement was not significant. However, the interaction effect of activity level and persistence is significant. Further break down analyses conducted to pursuit the interaction effect revealed that: (1) persistence has a consistent significant positive effects on all children over the years, except for the ones with high activity level (the upper 25th percentile); and (2) activity level has significant negative effects on high persistence (the upper 25th percentile) children only, and the interaction effect of activity level increases over time—the older the child the more significant the influence. Also, the tendency of approach/withdraw has significant impact on science achievement.

The educational implications of the findings included: (1) teachers of high activity students with high persistence might need to consider the match between children's interests and contents of instruction; (2) a good match between children's individual differences in distractibility, persistence, and
approach needs to be considered in contents, expectations, and interactions of the instruction.

**Wilhelm. G. M (2008)** described character broadly by leading authorities, including concepts such as practicing apt behavior and teaching right from wrong. Virtue and moral undertones tend to pervade most experts use of character, although in secular settings, the notion of ethics is more prominent. Overall, developing in students a desire for the good is how most authorities understand the construct. Implementing character in the public and Christian schools, apart from a Judeo-Christian view of the construct, leaves schools open to values clarification, situational ethics, and other post-modern foundational options. Character development, at least at the conceptual level, is at the heart of all education—Christian or non-Christian.

**Janoff-B. R.; Sheikh, S. and Hepp, S. (2009)** made a distinction between two forms of morality on the basis of approach–avoidance differences in self-regulation. Prescriptive morality is sensitive to positive outcomes, activation-based, and focused on what we should do. Proscriptive morality is sensitive to negative outcomes, inhibition-based, and focused on what we should not do. Seven studies have profiled these two faces of morality, support their distinct motivational underpinnings, and provide evidence of moral asymmetry. Both are well-represented in individual’s moral repertoire and equivalent in terms of moral weight, but proscriptive morality is condemnatory and strict, whereas prescriptive morality is commendatory.
Chapter -2 Review of Related Literature

and not strict. More specifically, in these studies proscriptive morality was perceived as concrete, mandatory, and duty-based, whereas prescriptive morality was perceived as more abstract, discretionary, and based in duty or desire; proscriptive immorality resulted in greater blame, whereas prescriptive morality resulted in greater moral credit.

CONCLUSION ON THE BASIS OF THE SURVEY OF RELATED STUDIES REFLECTING THE IMPORTANCE OF EDUCATIONAL RESEARCH

After collecting the related literature for all the four variables from different journals, books, encyclopedia and websites, the investigator has now come to a valid conclusion that as far as emotional intelligence is concerned it has earned its value and is now a hot topic of personality psychology for over a decade and there are researches of emotional intelligence with other personality variables except the ones under consideration. Temperament and character has been used together in almost all the researches of clinical type and only a few had been observed in the educational field with other variables. Need achievement, a very important variable in educational field has not been used recently in the last decade as much as it was expected. As compared to emotional intelligence, temperament and character, the studies of need achievement are fewer.

The several studies show the relationship between temperament and motivation system (Beauvale and Tokarz, 1996). Similarly Barbara Keogh’s
research and thinking on temperament in childhood is paving way to the
importance of temperament in education. Temperament related classroom
strategies may prove to be helpful in learning. Puttonen et al. (2005) study
provided support for the validity of Cloninger’s temperament dimensions as
predictors of emotions responses during different challenges. Especially,
Novelty Seeking and Harm Avoidance appear to have a significant influence
on emotional experiences.

Character has been a topic of discussion from time immemorial (Sabini
and Silver, 1998) found an aesthetic and moral basis of character. Calabrese
and Roberts (2002) described character at the core of leadership. Leaders
with virtuous character provide benefit to their schools and communities.
Mayer and Casey (2000) examined the scientific evidence for whether
emotional intelligence underpins social and emotional learning and how
emotional intelligence is related to success and whether it is central to
character.

For Herbert Spencer "education has for its object the formation of
caracter". The complex of all the attributes--behavioral, temperamental,
emotional and mental--that characterize a unique individual. Cloninger deals
with the psychobiological aspect of character. The question for the educators
is how to understand character and what aspects of educative process can
contribute to character formation.
Chapter -2 Review of Related Literature

Just like motives are central to any theory of personality and therefore has a strong education implication so are our emotions. Motives are emotions in actions. Temperament and character are both biological and psychological. We cannot disregard temperament and character from any understanding of human behaviour and therefore these implications to the field of education cannot be overlooked.

Therefore researcher has made a modest attempt to understand the relationship between all these variables emotional intelligence, temperament, character and need achievement. Also the researcher is concerned with finding out the factor structure i.e common factors, if any, among these variables. Moreover all the four variables are a part of personality so how far are they related with each other may prove to be a novel research according to the investigator.
Chapter-3

DESIGN AND METHODOLOGY
DESIGN AND METHODOLOGY

RESEARCH DESIGN

The research design is the detailed plan of the investigation. Infact, it is the “blue print” of the detailed procedure of testing the hypothesis and analyzing the obtained data. The research design may be defined as the sequence of those steps taken ahead of time to ensure that the relevant data will be collected in a way that permits objective analysis of the different hypotheses formulated with respect to the research problems. Thus, the research design helps the researcher in testing the hypothesis by reaching valid and objective conclusion regarding the relationship between independent and dependent variables.

In this chapter a description of the sample, its size, research tools, administration and collection of data and statistical techniques used by the investigator for analyzing data, has been prepared.

SAMPLING

Sampling is the process by which a relatively small number of individuals or measures of individuals, objects or events is selected and studied in order to draw some inferences about the entire population from which it was selected. It helps to reduce expenditure, save time and energy
permit measurement of greater scope, or produce precision and accuracy. Sampling procedures provide generalizations on the basis of a relatively small portion of population.

Population of the Present Study

A population refers to any collection or specified group of human beings or of non-formal entities such as objects, educational institutions etc. drawn by individual, generally, researcher who does not study the entire population for want of needed time and resources. Moreover, in most of cases, it is not required. What is done is that a smaller portion of the population is drawn as a sample which is studied in detail and conclusions are drawn for the whole population.

In the present study, the target population was all the post graduate students of Aligarh Muslim University.

Sample

The primary purpose of research is to discover principles that have universal application, but to study a whole population in order to arrive at generalizations would be impracticable. A sample is a small portion of a population selected for observation and analysis. By observing the characteristics of the sample, one can make certain inferences about the characteristics of the population from which it is drawn. The sample selected was by the random selection technique from each department of the faculties.
According to the Table 3.1 the population of the postgraduate students of the four faculties of Aligarh Muslim University in the 1st year is 918, as almost all the courses offered at post graduate level are of two years therefore the total population of the post graduate students in the four departments amounts to 2000 approximately, which may include students with backlog and students who have failed. The sample, randomly selected of 300 post graduate students is representative of the population as can be seen from the Tables 3.1 and 3.2)

Table 3.1  Details of different Faculties of Aligarh Muslim University

<table>
<thead>
<tr>
<th>FACULTIES</th>
<th>DEPARTMENTS</th>
<th>COURSES OFFERED</th>
<th>INTAKE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Faculty of Arts</td>
<td>1. Department of Arabic</td>
<td>1. MA in Arabic</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>2. Center for comparative study of Indian language and culture.</td>
<td>2. MA in Persian</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>3. Department of English</td>
<td>3. MA in Malayalam</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>4. Department of Fine Arts</td>
<td>4. MA in Telugu</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>5. Department of Linguistics</td>
<td>5. MA in Bengali</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>6. Department of Modern Indian language.</td>
<td>6. MA in Tamil</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>7. Department of Philosophy</td>
<td>7. MA in Linguistic</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>8. Department of Sanskrit</td>
<td>8. MA in Sanskrit</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>9. Department of Urdu</td>
<td>9. MA in Urdu</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>10. Department of Hindi</td>
<td>10. MA in Hindi</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11. MA in English</td>
<td>30</td>
</tr>
<tr>
<td>2. Faculty of Commerce</td>
<td>1. Department of Commerce</td>
<td>1. Masters in Commerce</td>
<td>60</td>
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<tr>
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<td>--------------------------</td>
<td>---------------------</td>
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</tr>
<tr>
<td></td>
<td>2. Department of Tourism</td>
<td>2. Masters in Tourism</td>
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<tr>
<td></td>
<td>3. Department of Finance</td>
<td>3. MFC</td>
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<tr>
<td><strong>TOTAL</strong></td>
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<td></td>
<td>105</td>
</tr>
<tr>
<td>3. Faculty of Life Sciences</td>
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<tr>
<td></td>
<td>2. Department of Botany</td>
<td>2. M.Sc in Botany</td>
<td>35</td>
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<tr>
<td></td>
<td>5. Department of Museology</td>
<td>5. M.Sc in Museology</td>
<td>10</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td>108</td>
</tr>
<tr>
<td>4. Faculty of Social Sciences</td>
<td>1. Department of Economics</td>
<td>1. MA in Economics</td>
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<td>2. Department of Education</td>
<td>2. MA in Education</td>
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<td></td>
<td>3. Department of Islamic Studies</td>
<td>3. Masters In Education</td>
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<td></td>
<td>4. Department of Mass Communication</td>
<td>4. MA in Islamic Studies</td>
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<tr>
<td></td>
<td>5. Department of Library and Information Sciences</td>
<td>5. MA in Mass Communication</td>
<td>20</td>
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<tr>
<td></td>
<td>6. Department of Psychology</td>
<td>6. MA in Library an information Sciences</td>
<td>25</td>
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</tbody>
</table>
### Table 3.2 Details of the sample selected from different Faculties of Aligarh Muslim University

<table>
<thead>
<tr>
<th>S.NO.</th>
<th>FACULTIES</th>
<th>FEMALE</th>
<th>MALE</th>
<th>TOTAL</th>
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<td>33</td>
<td>65</td>
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<td>2</td>
<td>Faculty of Commerce</td>
<td>34</td>
<td>35</td>
<td>69</td>
</tr>
<tr>
<td>3</td>
<td>Faculty of Life Sciences</td>
<td>43</td>
<td>43</td>
<td>86</td>
</tr>
<tr>
<td>4</td>
<td>Faculty of Social Sciences</td>
<td>40</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL SAMPLE</strong></td>
<td><strong>300</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
RESEARCH INSTRUMENT/TOOLS USED

All the Psychological and Educational Tests have to be objective in nature, i.e., free from the subjective element so that there is complete interpersonal agreement among experts regarding the meaning of the items and scoring of the test. In order for a test to be objective is of immense importance that the test should fulfill the criteria of: Validity, Reliability, Practicability and lastly it should conform to the norms so established.

For collecting relevant information for the present study, this investigator used three different research instruments to measure the variables:

1. Emotional intelligence Scale (EIS) by Anukool Hyde, Sanjyot Pethe and Upinder Dhar [2001].

2. The Temperament and Character Inventory (TCI) by Cloninger et. al. [1994].

3. Achievement Motivation Test (n-Ach scale) by Pratibha Deo and Asha Mohan [1985].

Details of the Research Instrument Used

The details of the three research tools used by the investigators are as follows:
Emotional Intelligence Scale (EIS)

Hyde et al. (2001) constructed this scale and established norms for Emotional Intelligence by working on 200 subjects. They have described by using the definition of emotional intelligence as described by Mayer and Salovey (1993), which states that:

'Emotional Intelligence is defined as the ability to monitor one’s own and other’s feelings and emotions to discriminate among others, and use this information to guide one’s thinking and action. Emotional intelligence involves the ability to perceive accurately, appraise, and express emotions; the ability to access and/or generate feelings when they facilitate thoughts, the ability to understand emotions and emotional knowledge and intellectual growth.'

Hyde et al. initially constructed a scale of 106 items after the required statistical treatment 34 items emerged out to be highly significant and the rest were rejected. The reliability of the scale was determined by calculating reliability coefficient on a sample of 200 subjects. The split-half reliability coefficient was found to be 0.88.

Besides face validity, as all items were related to the variable under focus. The scale had high content validity and in order to calculate the validity from the coefficient of reliability (Garrett, 1981), the reliability index was calculated, which indicated high validity on account of being 0.93.
After the administration of the scale and the scores obtained were subjected to factor analysis and ten factors were identified, which now constitute the sub-dimensions of the emotional intelligence by Hyde et.al.

The ten sub-dimensions of Emotional Intelligence are:

1) E1- A- Self Awareness
2) E2- B- Empathy
3) E3- C- Self Motivation
4) E4- D- Emotional Stability
5) E5- E- Managing Relations
6) E6- F- Integrity
7) E7- G- Self Development
8) E8- H- Value Orientation
9) E9- I- Commitment
10) E10- J- Altruistic Behaviour

**Detail descriptions of the sub-dimensions are:**

1) **E1- A- Self Awareness** – is the concept that one exists as an individual, separate from other people, with private thoughts. It may also include the understanding that other people are similarly self-aware and is measured by items 6, 12, 18 and 29.

2) **E2- B- Empathy**- is the capacity to recognize or understand another's state of mind or emotion. It is often characterized as the ability to "put oneself into another's shoes", or to in some way
experience the outlook or emotions of another being within oneself. Empathy does not necessarily imply compassion or empathic concern because this capacity can be present in context of compassionate or cruel behavior and is measured by items 9, 10, 15, 20 and 25.

3) **E3- C- Self Motivation-** is the ability to motivate yourself, to find a reason and the necessary strength to do something, without the need of being influenced to do so by another person. Working in a careful and consistent manner without giving up and being motivated internally and is measured by 2, 4, 7, 8, 31 and 34.

4) **E4- D- Emotional Stability-** is the ability of the character to remain stable in times of stress and is measured by items 14, 19, 26 and 28.

5) **E5- E- Managing Relations-** is the ability to inspire, influence and develop others while managing conflicts. And it is also defined as using awareness of one’s own emotions and the emotions of others to manage relationships to a successful outcome and is measured by 1, 5, 11 and 17.

6) **E6- F- Integrity-** comprises perceived consistency of actions, values, methods, measures and principles. Depth and breadth of a value system may also be significant factors due to their congruence with a wider range of observations. A value system may evolve
over time while retaining integrity if holders of that value system account for and resolve inconsistencies and is measured by 16, 27 and 32.

7) **E7- G- Self Development**- is taking personal responsibility for one's own learning and development through a process of assessment, reflection, and taking action and is measured by items 30 and 33.

8) **E8- H- Value Orientation**- the principles of right and wrong that are accepted by an individual or a social group and is measured by items 21 and 22.

9) **E9- I- Commitment**- means to duty or pledge to something or someone, and can refer to Personal commitment i.e, interaction dominated by obligations. These obligations may be mutual, or self-imposed, or explicitly stated, or may not. Distinction is often made between commitment as a member of an organization (such as a sporting team, a religion, or as an employee), and a personal commitment, which is often a pledge or promise to one’s self for personal growth and is measured by items 23 and 24.

10) **E10- J- Altruistic Behaviour**- being helpful to other people with little or no interest in being rewarded for one's efforts (the colloquial definition). This is distinct from merely helping others. An ethical doctrine that holds that individuals have a moral
Chapter -3

Design And Methodology

obligation to help others, if necessary to the exclusion of one's own interest or benefit. One who holds such a doctrine is known as an "altruist." This is measured by the items 3 and 13.

The sub dimensions of Emotional Intelligence have been tabulated as follows in Table 3.3:

Table 3.3 Table showing the factors/sub dimensions along with the item numbers of Emotional Intelligence Scale (EIS)

<table>
<thead>
<tr>
<th>S.NO</th>
<th>FACTORS/SUB DIMENSIONS</th>
<th>ITEM NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Self Awareness</td>
<td>6, 12, 18, 29</td>
</tr>
<tr>
<td>2</td>
<td>Empathy</td>
<td>9,10, 15, 20, 25</td>
</tr>
<tr>
<td>3</td>
<td>Self Motivation</td>
<td>2,4,7,8,31,34</td>
</tr>
<tr>
<td>4</td>
<td>Emotional Stability</td>
<td>14,19,26,28</td>
</tr>
<tr>
<td>5</td>
<td>Managing Relations</td>
<td>1,5,11,17</td>
</tr>
<tr>
<td>6</td>
<td>Integrity</td>
<td>16,27,32</td>
</tr>
<tr>
<td>7</td>
<td>Self Development</td>
<td>30,33</td>
</tr>
<tr>
<td>8</td>
<td>Value Orientation</td>
<td>21,22</td>
</tr>
<tr>
<td>9</td>
<td>Commitment</td>
<td>23,24</td>
</tr>
<tr>
<td>10</td>
<td>Altruistic Behaviour</td>
<td>3,13</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>34</td>
</tr>
</tbody>
</table>

Achievement Motivation (n-Ach) Scale

Pratibha Deo and Asha Mohan (1985) constructed this scale and established norms for Need Achievement by working on 635 subjects. They
have used the definition of achievement motivation as described by McClelland et al. (1953), which states that:

‘Achievement:motivation (n-Ach) is defined as a disposition to strive for success in competition with others with some standard of excellence, set by the individual. Motive to achieve requires an act of some norms of excellence, long term involvement and unique accomplishment.’

Deo and Mohan initially constructed a scale of 115 items after the required statistical treatment 50 items emerged out to be highly significant and the rest were rejected. The reliability of the scale was determined by calculating reliability coefficient on a sample of 635 subjects. Test-retest method was applied to obtain the reliability coefficient of the scale. And it was found that the reliability coefficient for total group was 0.69, for male group \( r = 0.67 \) and for female group \( r = 0.78 \).

In the first instance the item validity established by the high-low discrimination method was accepted as the validity of the whole measure. Besides, this scale was also used for validating projective test of Achievement Motivation. The coefficient of correlation between the scale and the projective test was observed to be 0.68 which speaks for the validity of the scale also, the validity being of the concurrent nature. Finally the scale scores were also correlated with the scores obtained by administering the Aberdeen Academic Inventory of Entwistle (1968) yielding a coefficient of correlation as 0.75.
Finally 50 items were chosen after careful scrutiny having the distribution as follows in Table 3.4:

Table 3.4 Table showing the factors/sub dimensions along with the item numbers of Need Achievement Scale (n- Ach Scale).

<table>
<thead>
<tr>
<th>S.No.</th>
<th>FACTORS</th>
<th>NO. OF ITEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Academic Motivation</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Need for achievement</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Academic challenge</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Achievement Anxiety</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Importance of grades/marks</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>Meaningfulness of task</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>Relevance of school/college to future goals</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>Attitude towards education</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>Work Methods</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>Attitude towards teachers</td>
<td>3</td>
</tr>
<tr>
<td>11</td>
<td>Interpersonal relations</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td>Individual concerns</td>
<td>3</td>
</tr>
<tr>
<td>13</td>
<td>General Interests</td>
<td>4</td>
</tr>
<tr>
<td>14</td>
<td>Dramatics</td>
<td>3</td>
</tr>
<tr>
<td>15</td>
<td>Sports etc.</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>50</td>
</tr>
</tbody>
</table>
Chapter -3

Design And Methodology

The statements have been tabulated according to their nature of statements in Table 3.5:

Table 3.5 Table showing the Positive and Negative statements along with their statement number of Need Achievement Scale.

<table>
<thead>
<tr>
<th>S.NO</th>
<th>NATURE OF STATEMENT</th>
<th>STATEMENT NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Positive Statements</td>
<td>2,3,4,5,6,7,8,9,10,11,15,16,23,24,25,26,27,28,29,30,31,33,35,36,38,39,40,41,42,43,44,45,46,47,48,49 and 50 = 37 Statements</td>
</tr>
<tr>
<td>2</td>
<td>Negative Statements</td>
<td>1,12,13,14,17,18,19,20,21,22,32,34 and 37 = 13 Statements</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>50</td>
</tr>
</tbody>
</table>

Temperament and Character Inventory (TCI)

Cloninger et.al. (1993) constructed this scale and established norms for Temperament and Character. They have described the definition of Temperament and Character as follows:

- **TEMPERAMENT**

'The temperament is generally described as biologically based components of personality which are set to be independent heritable, manifest early in life and involve pre conceptual biases in perception, memory and habit formation.'
CHARACTER

'Character dimensions are consciously learned components of personality which mature in adulthood and influence personal and social effectiveness by insight learning about self concepts.'

The TCI has been developed to account for individual differences in both normal and abnormal (deviant) behaviour patterns. The seven factor structure of personality has been replicated in both the general population and psychiatric patient populations. The TCI has proven useful in practical clinical work, notably in the diagnosis, differential diagnosis and treatment planning of psychiatric disorders.

The test measuring the temperament dimensions only was originally called the Tridimensional Personality Questionnaire (TPQ). In the TPQ, Novelty Seeking, Harm Avoidance, Reward Dependence and Persistence were measured, but Persistence was originally scored as a component of Reward Dependence. The name of the Test was changed when the character scales were added and Persistence was recognized as a fourth separately inherited Temperament dimensions.

The test retest reliability of the quantitative scores over six months is moderately high i.e, 0.85 for TCI. Cloninger et al. has developed different versions of the TCI. There are Tri dimensional Personality Questionnaire (TPQ), Temperament and Character Inventory (TCI), Temperament and Character Structured Interview (TCSI) and Junior Temperament and Character Inventory (JTCI). The Temperament and Character Inventory
(TCI) consists of 240 items out of which 14 items are not scored as a part of TCI therefore it leaves with **226 items** in total.

Cloninger envisages temperament as being connected to the procedural learning systems of the brain, whereas character is connected to propositional learning. Thus character is more open to cognitive influence, whereas temperament reflects habit system. The sum total of temperament and character make up the personality of human, with the two being causally independent and functionally interactive.

The Temperament Variables is divided into four (4) sub dimensions. There are:

1) T1- Novelty Seeking (NS)
2) T2- Harm Avoidance (HA)
3) T3- Reward Dependence (RD)
4) T4- Persistence (P)

**T1- Novelty Seeking (NS)** – Behavioral activation involved the activation of behaviour in response to novelty and signals of reward or relief of punishment; accordingly, individual differences in such activatability were called ‘Novelty Seeking’. In other words it refers to engaging in new and unfamiliar, which leads to exploration of potential rewards. This sub dimension can also be interpreted as ‘Choleric’ type of temperament corresponding to ‘anger’ emotion. Subjects Scoring high on NS are easily bored, impulsive, quick tempered, extravagant and disorderly. Subjects
scoring low on NS like rules, are highly structured and are content without need for excitement.

**T2- Harm Avoidance (HA)** - Behavioral inhibition occurred in response to signals of punishment or non-reward, so individual differences in inhabitability were called ‘Harm Avoidance’. It is a temperament associated with inhibition or succession of behaviour and fear of uncertainty. People scoring high on HA are pessimistic, fearful, shy, anxious and easily fatigued. People scoring low on HA remain calm, even under circumstances where others might feel upset. This sub dimension can also be interpreted as ‘Melancholic’ type of temperament corresponding to ‘fear’ emotion.

**T3- Reward Dependence (RD)** - Behaviour that was previously rewarded was later maintained for a while without continued reinforcement, and individual differences in such maintenance was called ‘Reward Dependence’. It is also defined as a heritable base in maintenance and continuation of an ongoing behaviour and manifest as social attachment and dependence on approval of others. Subjects scoring high on RD are sociable, dependent on emotional support from others, yield quickly to social pressure, are warm and sympathetic, sensitive to rejection or criticism and responsive to sentimental appeals. Subjects scoring low on RD are aloof, cold, insensitive to criticism and resistant to social pressure. This sub dimension can also be interpreted as ‘Sanguine’ type of temperament corresponding to ‘love’ emotion.
**T4- Persistence (P) -** means perseverance in behaviour as being industrious, hardworking and stable despite frustration and fatigue. People scoring high on persist despite frustrations, sometimes to the extent that they are unable to change strategy when necessary. Thus, a high score on persistence points also to rigidity. People scoring low on persistence easily give up in case of frustration. This sub dimension can also be interpreted as 'Phlegmatic' type of temperament corresponding to 'tenacity' emotion.

The Character Variable has three (3) sub dimensions. There are:

1) C1- Self Directedness (SD)
2) C2- Cooperativeness (C)
3) C3- Self Transcendence (ST)

**C1- Self Directedness (SD)-** Individual who are able to adapt their behaviour in accord with individually chosen, voluntary goals. It measures individual self-acceptance. Subjects scoring high on SD are autonomous, responsible, have high self-esteem, good impulse control and set clear goals for themselves. Subjects scoring low on SD are irresponsible, purposeless, helpless, have poor self-acceptance and poor impulse control. From this self concept are derived feelings of personal integrity, honor, self-esteem, effectiveness, leadership and hope.

**C2- Cooperativeness (C)-** is understanding and respecting the preferences and needs of others as well as their own. Cooperativeness is related to which a person identifies himself or herself as an integral part of
the society as a whole. People scoring high on cooperativeness are tolerant, empathic, agreeable, helpful and compassionate. People scoring low on cooperativeness are intolerant, narcissistic, disagreeable, hostile, revengeful and opportunistic. From this self concept are derived feelings of community, compassion, conscience and charity.

**C3- Self Transcendence (SD)**- reflects the tendency of identification with unity of all things and is associated with deficits in transpersonal identification or conscience. It captures the degree to which an individual feels a part of nature and the universe at large. Subjects scoring high on ST have aesthetic sensitivity, pursue spiritual values, are self neglecting and have a strong imagination. Subjects scoring low on ST accept only their own perspective, are materialistic and are not interested in spiritual issues. In addition, they are unstable in affect and self image. From this self concept are derived feelings of mystical participation, religious faith and unconditional equanimity and patience.

The seven domains of personality which are apart of Cloninger’s biosocial theory of personality are tabulated as follows in Table 3.6:

**Table 3.6 Table showing the factors/sub dimensions along with the item numbers of Temperament and Character Inventory (TCI).**

<table>
<thead>
<tr>
<th>S.NO</th>
<th>VARIABLES</th>
<th>SUB DIMENSIONS</th>
<th>NO. OF ITEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TEMPERAMENT</td>
<td>1. T1- Novelty Seeking (NS)</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. T2- Harm Avoidance (HA)</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. T3- Reward Dependence (RD)</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. T4- Persistence (P)</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TOTAL</td>
<td>107</td>
</tr>
</tbody>
</table>
### CHARACTER

<table>
<thead>
<tr>
<th>Sub Dimensions</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 CI- Self Directedness (SD)</td>
<td>44</td>
</tr>
<tr>
<td>2 C2- Cooperativeness (C)</td>
<td>42</td>
</tr>
<tr>
<td>3 C3- Self Transcendence (ST)</td>
<td>33</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>119</strong></td>
</tr>
</tbody>
</table>

The detail description of the sub dimensions item-wise is tabulated as follows in Table 3.7:

Table 3.7 Table showing the detailed description of each sub dimensions along with the nature of the statements of Temperament and Character Inventory (TCI).

<table>
<thead>
<tr>
<th>S.NO</th>
<th>Sub Dimensions</th>
<th>Items</th>
<th>(Underlined items are Negative statements and the rest Positive)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>T1- Novelty Seeking (NS)</td>
<td>1,13,19,29,34,35,41,52,53,61,66,69,77,80,89,97,105,106,107,110,125,133,134,137,141,148,158,160,166,174,178,181,182,193,194,201,202,208,225 and 226.</td>
<td><strong>TOTAL</strong> 40 Items</td>
</tr>
<tr>
<td>3</td>
<td>T3- Reward Dependence (RD)</td>
<td>3,14,21,28,44,46,55,68,70,81,99,113,115,126,136,149,151,171,172,183,191,200,213 and 215.</td>
<td><strong>TOTAL</strong> 24 Items</td>
</tr>
<tr>
<td>4</td>
<td>T4- Persistence (P)</td>
<td>11,37,62,100,123,159,195 and 207</td>
<td><strong>TOTAL</strong> 8 Items</td>
</tr>
<tr>
<td>5</td>
<td>C1- Self Directedness (SD)</td>
<td>4,9,17,24,30,32,36,39,40,58,59,60,73,83,84,88,92,101,102,103,104,111,116,121,129,130,143,144,152,155,162,163,168,170,175,186,187,188,197,203,210,212,218 and 221</td>
<td><strong>TOTAL</strong> 44 Items</td>
</tr>
<tr>
<td>6</td>
<td>C2- Cooperativeness (C)</td>
<td>5,7,10,16,18,25,33,47,48,49,50,57,64,71,72,76,85,87,91,96,117,119,122,128,131,132,139,146,153,154,161,164,169,176,177,189,196,205,211,216,222 and 223.</td>
<td><strong>TOTAL</strong> 42 Items</td>
</tr>
</tbody>
</table>
The statements have been tabulated according to their nature of statement as follows:

<table>
<thead>
<tr>
<th>S.NO</th>
<th>NATURE OF STATEMENT</th>
<th>NO. OF STATEMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Positive Statements</td>
<td>116 Statements</td>
</tr>
<tr>
<td>2</td>
<td>Negative Statements</td>
<td>110 Statements</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>226</td>
</tr>
</tbody>
</table>

DATA COLLECTION

In order to collect appropriate data it was considered essential to approach subjects personally and the investigator did the same. The investigator collected her data from different departments of Aligarh Muslim University. She took help of her friends also in different departments to approach the students and collect data. Copies of the inventory were distributed among the students by the investigator and a record was maintained of the students who participated in filling the questionnaire. Students were assured that information provided by them would be kept strictly confidential and would be used only for the purpose of research and
any queries related to the questionnaire were cleared. The investigator also provided her email ID and cell phone number for the respondents. They were also asked to go through the general instructions given on the introductory page before completing the inventory. No time limit was given the respondent were given free time to fill in the questionnaire and the investigator allotted a day in which she collected all the questionnaire according to the record maintained by her.

THE SCORING OF THE THREE RESEARCH TOOLS USED

Hyde et.al. (2001) constructed the Emotional Intelligence Scale (EIS) on the basis of Likert scale. Each item or statement were scored 5 for strongly agree, 4 for agree, 3 for neutral, 2 for disagree and 1 for strongly disagree. The 34 items scale had no time limit, it was observed to be completed in about 10-12 minutes.

Deo and Mohan (1985) constructed the Achievement Motivation Scale (n-Ach Scale) with a questionnaire of 50 items of the self- rating Likert type and can be administered in a group with 5 points to rate viz Always, Frequently, Sometimes, Rarely and Never. It has no time limit. The scoring device was simple stencil type having a numerical weightage from 0 to 4 for positive in the above order of rating scale and the reverse of it for the negative items. It was observed that the questionnaire took 12-15 minutes to complete it.
Cloninger et al. (1993) constructed the Temperament and Character Inventory (TCI) with a total of 226 items. The self-report questionnaire are paper and pencil tests in which the subject answers true or false to a series of questions about their likes, dislikes, emotional reactions, interests, attitudes, goals, and values. No time limit is given. As this test is lengthy, it takes up to 25-30 minutes to complete it. For positive statements (116 statements) the score for True is 1 and False is 0, and for negative statements (110 statements) the score for True is 0 and False is 1.

**ANALYSIS OF DATA**

All the calculations were done on the computer with the help of a software package named Statistical Package for Social Sciences (SPSS) (version 10.0). The analysis was done in two steps:

- Computation of inter-correlations among the variables
- Factor analysis of the subdimensions of all the four variables.

**Correlation**

In education and psychology, there are times when one needs to know whether there exists any relationship among the different attributes or abilities of the individual or they are independent of each other. Then we make use of correlation. It is the most common and most useful statistics. A correlation is a single number that describes the degree of relationship between two variables. It also reveals how the change in one variable is accompanied by
the change in the other in terms of direction as well as magnitude. Correlation between variables may be positive, negative or zero.

**Pearson Product Moment Correlation**

The Pearson Product Moment Coefficient of Correlation is the most widely used measure of correlation or association. It is named after ‘Karl Pearson’ who developed the correlation method to do agricultural research. The product moment part of the name comes from the way in which it is calculated, by summing up the products of the deviation of the scores from the mean. The Pearson coefficient of correlation is denoted by the symbol ‘r’.

The formula for computing Pearson coefficient of correlation is:

\[
    r = \frac{\sum xy}{N \sigma_x \sigma_y}
\]

Here, x = Deviation of any X-score from the mean in test X

y = Deviation of the corresponding Y-score from the mean in test Y

\( \sum xy \) = Sum of all the products of deviation

\( \sigma_x \) = Standard deviation of the distribution of scores in test X

\( \sigma_y \) = Standard deviation of the distribution of scores in test Y

N = Total number of scores of frequencies

**Factor Analysis**

Factor analysis is a statistical method used to describe variability among observed variables in terms of fewer unobserved variables called factors. The observed variables are modeled as linear combinations of the
factors, plus "error" terms. The information gained about the
interdependencies can be used later to reduce the set of variables in a dataset.

Factor analysis originated in psychometrics, and is used in behavioral
sciences, social sciences, marketing, product management, operations
research, and other applied sciences that deal with large quantities of data.

Factor analysis is often confused with principal components analysis.
The two methods are related, but distinct, though factor analysis becomes
essentially equivalent to principal components analysis if the "errors" in the
factor analysis model are assumed to all have the same variance. The main
applications of factor analytic techniques are: (1) to reduce the number of
variables and (2) to detect structure in the relationships between variables,
that is to classify variables. Therefore, factor analysis is applied as a data
reduction or structure detection method (the term factor analysis was first
introduced by Thurstone, 1931).

Applications in psychology and education

Factor analysis is used to identify "factors" that explain a variety of
results on different tests. For example, intelligence research found that people
who get a high score on a test of verbal ability are also good on other tests
that require verbal abilities. Researchers explained this by using factor
analysis to isolate one factor, often called crystallized intelligence or verbal
intelligence that represents the degree to which someone is able to solve
problems involving verbal skills.
Factor analysis in psychology and education is most often associated with intelligence research. However, it also has been used to find factors in a broad range of domains such as personality, attitudes, beliefs, etc. It is linked to psychometrics, as it can assess the validity of an instrument by finding if the instrument indeed measures the postulated factors.

Analysis

The analysis will isolate the underlying factors that explain the data. The data for multiple products is coded and input into a statistical program such as SPSS. Factor analysis is not without cost, however it is mathematically complicated and entails diverse and numerous considerations in application. Its technical vocabulary includes strange terms such as eigenvalues, rotate, simple structure, orthogonal, loadings, and communality.

The researcher in the present study used the Varimax technique of factor analysis.

Unrotated Factor Matrix

Two different factor matrices are often displayed in a report on a factor analysis. The first is the unrotated factor matrix; it is usually given without comment. The second is the rotated factor matrix; it is generally the object of interpretation.

Rotated Factor Matrix

The rotated factor matrix should not differ in format from the unrotated factor matrix. The unrotated factors successively define the most
general patterns of relationship in the data. Not so with the rotated factors. They delineate the distinct clusters of relationships, if such exist.

**Interpreting Factors**

The loadings and factor scores describing the patterning of the data are found by the analysis. Once the patterns are determined, the researcher will study them and attach an appropriate label. These labels facilitate the communication and discussion of the results; they also serve as instrumental tags for further manipulation, mnemonic recall, and research. The scientist may label the patterns in any one of three ways: symbolically, descriptively, or causally.
Chapter 4

ANALYSIS AND INTERPRETATION OF DATA
ANALYSIS AND INTERPRETATION OF DATA

The process of data collection normally results in large set of observation, which as such does not communicate any meaning. The quantification of these observations provides a large list of numbers which cannot be interpreted by inspection to give any kind of meaningful information. Data collected is meaningless until it is interpreted in some useful way. Before a statistical test is applied to draw inferences about the population characteristics on the basis of sample characteristics, the raw scores need to be summarized in terms of meaningful statistical quantities so that the nature of score distributions may be properly described.

Analysis is really a highly complicated job and it requires scientific mind and expertness. In the present investigation, the investigator in order to analyze the data of the study employed in the present investigation is product moment correlation and factor analysis. The investigator tried the level best to arrive at meaningful generalization by comparing difference among male and female students of various variables, viz a viz Emotional Intelligence (10 sub dimensions), Need achievement, Temperament (4 sub dimensions) and Character (3 sub dimensions). The relationships have been ascertained by computing inter correlations among the above mentioned variables.
**Correlation matrix:** A table of inter-correlations is known as correlation matrix. One peculiarity about a correlation matrix is that it is symmetrical about its principal diagonal. The correlation matrix has as many columns and rows as there are tests. The elements (numerical values within matrix) of correlation matrix are inter correlation among tests.

For objectives from one (1) to six (6), the investigator employed the product moment correlation. In order to test the hypotheses from one to six, product moment correlation was found between the four variables along with their sub dimensions.

**Study of Correlation Matrix:** There were 19 variables in the study which were inter correlated. The size of the sample was 300 including post graduate students from Faculty of social sciences, life sciences, commerce and arts of Aligarh Muslim University.

Here, \( N \) (sample size) = 300

\[
df (\text{degree of freedom}) = N - 2
\]

\[
= 300 - 2 = 298
\]

It was found from the statistical tables that for 298 degrees of freedom, the value of correlation \( r \) must be at least \( .113 \), to be significant at \( .05 \) level and \( .148 \) to be significant at \( .01 \) level.

The correlation matrix is presented in Table No. 4.1 of the Total sample which shows that many correlation coefficients are significant at
.05 level and .01 level. These levels of significance were accepted for interpreting the results in the present study.

List of Variables:

- Variable 1 - T1 - Novelty Seeking
- Variable 2 - T2 - Harm Avoidance
- Variable 3 - T3 - Reward Dependence
- Variable 4 - T4 - Persistence
- Variable 5 - C1 - Self Directedness
- Variable 6 - C2 - Cooperativeness
- Variable 7 - C3 - Self Transcendence
- Variable 8 - NA - Need Achievement
- Variable 9 - E1 - Self Awareness
- Variable 10 - E2 - Empathy
- Variable 11 - E3 - Self Motivation
- Variable 12 - E4 - Emotional Stability
- Variable 13 - E5 - Managing Relations
- Variable 14 - E6 - Integrity
- Variable 15 - E7 - Self Development
- Variable 16 - E8 - Value Orientation
- Variable 17 - E9 - Commitment
- Variable 18 - E10 - Altruistic Behaviour
- Variable 19 - E11 - Total Emotional Intelligence
Variables significant in the Inter Correlation Table 4.1 are given below:

1. **Variable 1- (T1) Novelty Seeking** - a sub dimension of Temperament has significant negative correlation with variable-2- (T2) Harm Avoidance -a sub dimension of Temperament (-.250**), V-5- (C1) Self Directedness -a sub dimension of Character (-.286**) and V-6- (C2) Cooperativeness -a sub dimension of Character (-.237*).

2. **Variable 2- (T2) Harm Avoidance** – a sub dimension of Temperament has significant negative correlation with variable 1- (T1) Novelty Seeking -a sub dimension of Temperament (-.250**), V-4- (T4) Persistence -a sub dimension of Temperament (-.326**), V-5- (C1) Self Directedness -a sub dimension of Character (-.286**), V-7- (C3) Self Transcendence -a sub dimension of Character (-.126*). This variable is significantly related to the sub dimension of Emotional Intelligence such as: V-14- (E6) Integrity (.153**) and V-19- (EI) Total Emotional Intelligence (-.118*).

3. **Variable 3- (T3) Reward Dependence** -a sub dimension of Temperament- has significant correlation with variable-6- (C2) Cooperativeness -a sub dimension of Character (.309**), V-7- (C3) Self Transcendence -a sub dimension of Character (.173**). This variable is significantly related to the sub dimensions of Emotional
Chapter 4  Analysis And Interpretation of Data

Intelligence such as: V-11- (E3) Self Motivation (.152**), V-13- (E5) Managing Relations (.114*), V-15- (E7) Self Development (.122*) and V-19- (EI) Total Emotional Intelligence (.128*).

4. **Variable 4- (T4) Persistence** - a sub dimension of Temperament has significant correlation with variable-2- (T2) Harm Avoidance - a sub dimension of Temperament (-.326**), V-5- (C1) Self Directedness - a sub dimension of Character (.279**), V-6- (C2) Cooperativeness - a sub dimension of Character (.184**), V-8- (NA) Need Achievement (.131*) and this variable is significantly related to the sub dimension of Emotional Intelligence such as: V-13- (E5) Managing Relations (.189**).

5. **Variable 5- (C1) Self Directedness** - a sub dimension of Character has significant negative correlation with variable-1- (T1) Novelty Seeking - a sub dimension of Temperament (-.286**) and V-2- (T2) Harm Avoidance - sub dimensions of Temperament (-.286**), and positive correlation with V-4- (T4) Persistence - a sub dimension of Temperament (.279**), V-6- (C2) Cooperativeness - a sub dimension of Character (.467**) and V-8- (NA) Need Achievement (.123*).

6. **Variable 6- (C2) Cooperativeness** - a sub dimension of Character has significant negative correlation with variable-1- (T1) Novelty Seeking a sub dimension of Temperament (-.237**) and positive correlation with V-3-(T3) Reward Dependence - a sub dimension of
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Temperament (.309**), V-4- (T4) Persistence - a sub dimension of Temperament (.184**), V-5- (C1) Self Directedness - a sub dimension of Character (.467**), V-7- (C3) Self Transcendence - a sub dimension of Character (.208**), V-8- (NA) Need Achievement (.128*). This variable is significantly related to the sub dimension of Emotional Intelligence such as: V-17- (E9) Commitment (-.148*).

7. Variable 7- (C3) Self Transcendence - a sub dimension of Character has significant negative correlation with variable-2- (T2) Harm Avoidance - a sub dimension of Temperament (-.126*) and positive correlation with V-3- (T3) Reward Dependence - a sub dimension of Temperament (.173**), V-6- (C2) Cooperativeness - a sub dimension of Character (.208**) and V-16- (E8) Value Orientation (.123*).

8. Variable 8- (NA- Need Achievement) has significant correlation with variable-4- (T4) Persistence - a sub dimension of Temperament (.131*), V-5- (C1) Self Directedness - a sub dimension of Character (.123*), V-6- (C2) Cooperativeness - a sub dimension of Character (.128*). This variable is significantly related to the sub dimensions of Emotional Intelligence such as: V-9- (E1) Self Awareness (.374**), V-10- (E2) Empathy (.408**), V-11- (E3) Self Motivation (.457**), V-12- (E4) Emotional Stability (.372**), V-13- (E5) Managing Relations (.459**), V-14- (E6) Integrity (.341**), V-15- (E7) Self Development (.335**), V-16- (E8) Value Orientation
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(.281**), V-17- (E9) Commitment (.356**), V-18- (E10) Altruistic
Behaviour (.268**) and V-19- (E1) Total Emotional Intelligence
(.605**).

9. Variable 9- (E1) Self Awareness- a sub dimension of Emotional
Intelligence has significant correlation with variable-8- (NA) Need
Achievement (.374**). This variable is significantly related to the
sub dimensions of Emotional Intelligence such as: V-10- (E2)
Empathy (.314**), V-11- (E3) Self Motivation (.362**), V-12- (E4)
Emotional Stability (.525**), V-13- (E5) Managing Relations
(.311**), V-14- (E6) Integrity (.367**), V-15- (E7) Self
Development (.329**), V-17- (E9) Commitment (.341**), V-18-
(E10) Altruistic Behaviour (.270**) and V-19- (E1) Total Emotional
Intelligence (.651**).

10. Variable 10- (E2) Empathy- a sub dimension of Emotional
Intelligence has significant correlation with V-8- (NA) Need
Achievement (.408**). This variable is significantly related to the
sub dimensions of Emotional Intelligence such as: V-9- (E1) Self
Awareness (.314**), V-11- (E3) Self Motivation (.459**), V-12-
(E4) Emotional Stability (.463**), V-13- (E5) Managing Relations
(.137*), V-14- (E6) Integrity (.289**), V-15- (E7) Self Development
(.495**), V-16- (E8) Value Orientation (.289**), V-17- (E9)
Commitment (.369**) and V-19- (E1) Total Emotional Intelligence (.687**).

11. **Variable 11- (E3) Self Motivation**- a sub dimension of Emotional Intelligence has significant correlation with V-3- (T3) Reward Dependence - a sub dimension of Temperament (.152*), V-8- (NA) Need Achievement (.457**). This variable is significantly related to the sub dimensions of Emotional Intelligence such as: V-9- (E1) Self Awareness (.362**), V-10- (E2) Empathy (.459**), V-12- (E4) Emotional Stability (.453**), V-13- (E5) Managing Relations (.384**), V-14- (E6) Integrity (.197**), V-15- (E7) Self Development (.452**), V-16- (E8) Value Orientation (.189**), V-17- (E9) Commitment (.435**), V-18- (E10) Altruistic Behaviour (.306**) and V-19- (E1) Total Emotional Intelligence (.741**).

12. **Variable 12- (E4) Emotional Stability**- a sub dimension of Emotional Intelligence V-8- (NA) Need Achievement (.372**). This variable is significantly related to the sub dimensions of Emotional Intelligence such as: V-9- (E1) Self Awareness (.525**), V-10- (E2) Empathy (.463**), V-11- (E3) Self Motivation (.453**), V-13- (E5) Managing Relations (.296**), V-14- (E6) Integrity (.397**), V-15- (E7) Self Development (.462**), V-16- (E8) Value Orientation (.288**), V-17- (E9) Commitment (.272**), V-18- (E10) Altruistic
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Behaviour (.487**) and V-19- (EI) Total Emotional Intelligence (.765**).

13. **Variable 13- (E5) Managing Relations-** a sub dimension of Emotional Intelligence has significant correlation with variable-3- (T3) Reward Dependence -a sub dimension of Temperament (.114*), V-4- (T4) Persistence -a sub dimension of Temperament (.189**), V-8- (NA) Need Achievement (.459**). This variable is significantly related to the sub dimensions of Emotional Intelligence such as: V-9- (E1) Self Awareness (.311**), V-10- (E2) Empathy (.137*), V-11- (E3) Self Motivation (.384*), V-12- (E4) Emotional Stability (.296**), V-14- (E6) Integrity (.328**), V-15- (E7) Self Development (.250**), V-16- (E8) Value Orientation (.130*), V-17- (E9) Commitment (.282**), V-18- (E10) Altruistic Behaviour (.171**) and V-19- (EI) Total Emotional Intelligence (.545**).

14. **Variable 14- (E6) Integrity-** a sub dimension of Emotional Intelligence has significant negative correlation with variable-2- (T2) Harm Avoidance -a sub dimension of Temperament (-.153**) and positive correlation with V-8- (NA) Need Achievement (.341**). This variable is significantly related to the sub dimensions of Emotional Intelligence such as: V-9- (E1) Self Awareness (.367**), V-10- (E2) Empathy(.289**), V-11- (E3) Self Motivation (.197**), V-12- (E4) Emotional Stability (.397**), V-13- (E5) Managing
Relations (.328**), V-15- (E7) Self Development (.195**), V-16-(E8)- Value Orientation (.265**), V-17- (E9) Commitment (.261**), V-18- (E10) Altruistic Behaviour (.259**) and V-19- (E1)
Total Emotional Intelligence (.559**).

15. Variable 15- (E7) Self Development- a sub dimension of Emotional Intelligence has significant correlation with variable-3- (T3) Reward Dependence -a sub dimension of Temperament (.122*), V-8- (NA) Need Achievement (.335**). This variable is significantly related to the sub dimensions of Emotional Intelligence such as: V-9- (E1) Self Awareness (.329**), V-10- (E2) Empathy (.495**), V-11- (E3) Self Motivation (.452**), V-12- (E4) Emotional Stability (.462**), V-13- (E5) Managing Relations (.250**), V-14- (E6) Integrity (.195**), V-16- (E8) Value Orientation (.178**), V-17- (E9) Commitment (.220**), V-18- (E10) Altruistic Behaviour (.119*) and V-19- (E1) Total Emotional Intelligence (.601**).

16. Variable 16- (E8) Value Orientation- a sub dimension of Emotional Intelligence has significant correlation with variable-7-(C3) Self Transcendence -a sub dimension of Character (.123*), V-8- (NA) Need Achievement (.281**). This variable is significantly related to the sub dimensions of Emotional Intelligence such as: V-10- (E2) Empathy (.289**), V-11- (E3) Self Motivation (.189**), V-12- (E4) Emotional Stability (.288**), V-13- (E5) Managing
Relations (.130*), V-14- (E6) Integrity (.265**), V-15- (E7) Self Development (.178**), V-17- (E9) Commitment (.340**), V-18- (E10) Altruistic Behaviour (.192**) and V-19- (E1) Total Emotional Intelligence (.434**).

17. **Variable 17- (E9) Commitment-** a sub dimension of Emotional Intelligence has significant correlation with V-6- (C2) Cooperativeness - a sub dimension of Character (.148*), V-8- (NA) Need Achievement (.356**). This variable is significantly related to the sub dimensions of Emotional Intelligence such as: V-9- (E1) Self Awareness (.341**), V-10- (E2) Empathy (.369**), V-11- (E3) Self Motivation (.435**), V-12- (E4) Emotional Stability (.272**), V-13- (E5) Managing Relations (.282**), V-14- (E6) Integrity (.261**), V-15- (E7) Self Development (.220**), V-16- (E8) Value Orientation (.340**), V-18- (E10) Altruistic Behaviour (.146*) and V-19- (E1) Total Emotional Intelligence (.586**).

18. **Variable 18- (E10) Altruistic Behaviour-** a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.268**). This variable is significantly related to the sub dimensions of Emotional Intelligence such as: V-9- (E1) Self Awareness (.270**), V-11- (E3) Self Motivation (.306**), V-12- (E4) Emotional Stability (.487**), V-13- (E5) Managing Relations (.171**), V-14- (E6) Integrity (.259**), V-15-
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(E7) Self Development (.259**), V-16- (E8) Value Orientation (.119*), V-17- (E9) Commitment (.192**), V-18- (E10) Altruistic Behaviour (.146*) and V-19- (E1) Total Emotional Intelligence (.459**).

19. Variable 19- (E1- Total Emotional Intelligence) has significant negative correlation with variable-2- (T2) Harm Avoidance -a sub dimension of Temperament(-.118*) and positive correlation with V-3- (T3) Reward Dependence -a sub dimension of Temperament (.128*), V-8- (NA- Need Achievement (.605**). This variable is significantly related to the sub dimensions of Emotional Intelligence such as: V-9- (E1) Self Awareness (.651**), V-10- (E2) Empathy (.687**), V-11- (E3) Self Motivation (.741**), V-12- (E4) Emotional Stability (.765**), V-13- (E5) Managing Relations (.545**), V-14- (E6) Integrity (.559**), V-15- (E7) Self Development (.609**), V-16- (E8) Value Orientation (.434**), V-17- (E9) Commitment (.586**) and V-18- (E10) Altruistic Behaviour (.459**).

[Where **- Significant at the 0.01 level,

* - Significant at the 0.05 level]
STUDY OF CORRELATION MATRIX OF THE MALE SAMPLE

There were 19 variables in the study which were intercorrelated. The size of the male sample was 151 including post graduate students of Faculty of social sciences, life sciences, commerce and arts, Aligarh Muslim University.

Here, \( N \) (sample size) = 151

\[
df (\text{degree of freedom}) = N - 2
\]
\[
= 151 - 2 = 149
\]

It was found from the statistical tables that for 149 degrees of freedom, the value of correlation \((r)\) must be at least 0.159, to be significant at 0.05 level and 0.208 to be significant at 0.01 level.

The correlation matrix is presented in Table No 4.2 of the male sample which shows that many correlation coefficients are significant at 0.05 level and 0.01 level. These levels of significance were accepted for interpreting the results in the present study.
Variables significant in the inter correlation Table 4.2 are given below:

1. **Variable 1- T1- Novelty Seeking-** a sub dimension of Temperament has significant negative correlation with variable-6-(C2) Cooperativeness (-.235**).

2. **Variable 2- T2- Harm Avoidance-** a sub dimension of Temperament has significant negative correlation with variable 3- (T3) Reward Dependence (-.189*), V-4- (T4) Persistence (-.286**), V-5- (C1) Self Directedness (-.318**) and V-7- (C3) Self Transcendence (-.355**).

3. **Variable 3- T3- Reward Dependence-** a sub dimension of Temperament has significant negative correlation with variable-2- (T2) Harm Avoidance (-.189*) and a positive correlation with V-4- (T4) Persistence (.212**), V-7- (C3) Self Transcendence (.332**) and V-15- (E7) Self Development (.164*).

4. **Variable 4- T4- Persistence-** a sub dimension of Temperament has significant negative correlation with variable-2- (T2) Harm Avoidance (-.286**) and positive correlation with V-3- (T3) Reward Dependence (.212**), V-5- (C1) Self Directedness (.355**) and V-8- (NA) Need Achievement (.165*).

5. **Variable 5- C1- Self Directedness-** a sub dimension of Character has significant negative correlation with variable-2- (T2) Harm
Avoidance (-.318**) and positive correlation with V-4- (T4) Persistence (.355**) and V-6- (C2) Cooperativeness (.303**).

6. **Variable 6- C2- Cooperativeness**- a sub dimension of Character has significant negative correlation with variable-1- (T1) Novelty Seeking (-.235**) and positive correlation with V-5- (C1) Self Directedness (.303**).

7. **Variable 7- C3- Self Transcendence**- a sub dimension of Character has significant negative correlation with variable-2- (T2) Harm Avoidance (-.355**) and positive correlation with V-3- (T3) Reward Dependence (.332**).

8. **Variable 8- (NA- Need Achievement)** has significant correlation with variable-4- (T4) Persistence (.165*), V-9- (E1) Self Awareness (.393**), V-10- (E2) Empathy (.386*8), V-11- (E3) Self Motivation (.493**), V-12- (E4) Emotional Stability (.397**), V-13- (E5) Managing Relations (.356**), V-14- (E6) Integrity (.311**), V-15- (E7) Self Development (.288**), V-16- (E8) Value Orientation (.206*), V-17- (E9) Commitment (.339**), V-18- (E10) Altruistic Behaviour (.203*) and V-19- (E1) Total Emotional Intelligence (.607**).

9. **Variable 9- E1- Self Awareness**- a sub dimension of Emotional Intelligence has significant correlation with V-8- (NA) Need Achievement (.393**), V-10- (E2) Empathy (.354**), V-11- (E3)
Self Motivation (.340**), V-12- (E4) Emotional Stability (.492**), V-13- (E5) Managing Relations (.281**), V-14- (E6) Integrity (.282**), V-15- (E7) Self Development (.298**), V-17- (E9) Commitment (.225**) and V-19- (E1) Total Emotional Intelligence (.628**).

10. **Variable 10- E2- Empathy-** a sub dimension of Emotional Intelligence has significant correlation with variable 8- (NA) Need Achievement (.386**), V-9- (E1) Self Awareness (.354**), V-11- (E3) Self Motivation (.334**), V-12- (E4) Emotional Stability (.436**), V-14- (E6) Integrity (.216**), V-15- (E7) Self Development (.429**), V-16- (E8) Value Orientation (.259**), V-17- (E9) Commitment (.315**) and V-19- (E1) Total Emotional Intelligence (.638**).

11. **Variable 11- E3- Self Motivation-** a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.493**), V-9- (E1) Self Awareness (.340**), V-10- (E2) Empathy (.334**), V-12- (E4) Emotional Stability (.385**), V-13- (E5) Managing Relations (.337**), V-14- (E6) Integrity (.183*), V-15- (E7) Self Development (.422**), V-17- (E9) Commitment (.342**), V-18- (E10) Altruistic Behaviour (.303**) and V-19- (E1) Total Emotional Intelligence (.709**).
12. **Variable 12- E4- Emotional Stability-** a sub dimension of Emotional Intelligence has significant correlation with variable-8-(NA) Need Achievement (.397**), V-9- (E1) Self Awareness (.492**), V-10- (E2) Empathy (.436**), V-11- (E3) Self Motivation (.385**), V-13- (E5) Managing Relations (.260**), V-14- (E6) Integrity (.342**), V-15- (E7) Self Development (.466**), V-16-(E8) Value Orientation (.234**) and V-19- (E1) Total Emotional Intelligence (.740**).

13. **Variable 13- E5- Managing Relations-** a sub dimension of Emotional Intelligence has significant correlation with variable-8-(NA) Need Achievement (.356**), V-9- (E1) Self Awareness (.281*), V-11- (E3) Self Motivation (.337**), V-12- (E4) Emotional Stability (.260**), V-14- (E6) Integrity (.367**), V-15- (E7) Self Development (.290**), V-17- (E9) Commitment (.258**) and V-19- (E1) Total Emotional Intelligence (.534**).

14. **Variable 14- E6- Integrity-** a sub dimension of Emotional Intelligence has positive correlation with V-8- (NA) Need Achievement (.311**), V-9- (E1) Self Awareness (.282**), V-10-(E2) Empathy (.216**), V-11- (E3) Self Motivation (.183*), V-12-(E4) Emotional Stability (.342**), V-13- (E5) Managing Relations (.367**), V-16- (E8) Value Orientation (.215**), V-17- (E9)
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Commitment (.190*), V-18- (E10) Altruistic Behaviour (.171*) and V-19- (EI) Total Emotional Intelligence (.521**).

15. **Variable 15- E7- Self Development**- a sub dimension of Emotional Intelligence has significant correlation with variable-3- (T3) Reward Dependence (.164*), V-8- (NA) Need Achievement (.288*), V-9- (E1) Self Awareness (.298**), V-10- (E2) Empathy (.429**), V-11- (E3) Self Motivation (.422**), V-12- (E4) Emotional Stability (.466**), V-13- (E5) Managing Relations (.290**) and V-19- (EI) Total Emotional Intelligence (.603**).

16. **Variable 16- E8- Value Orientation**- a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.206*), V-10- (E2) Empathy (.259**), V-12- (E4) Emotional Stability (.234**), V-14- (E6) Integrity (.215**), V-17- (E9) Commitment (.414**) and V-19- (EI) Total Emotional Intelligence (.391**).

17. **Variable 17- E9- Commitment**- a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.339**), V-9- (E1) Self Awareness (.225**), V-10- (E2) Empathy (.315**), V-11- (E3) Self Motivation (.342**), V-13- (E5) Managing Relations (.258**), V-14- (E6) Integrity (.190*), V-16- (E8) Value Orientation (.414**) and V-19- (EI) Total Emotional Intelligence (.508**).
18. **Variable 18- E10- Altruistic Behaviour**- a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.203*), V-11- (E3) Self Motivation (.303**), V-12- (E4) Emotional Stability (.381**), V-14- (E6) Integrity (.171*), and V-19- (EI) Total Emotional Intelligence (.361**).

19. **Variable 19- (EI- Total Emotional Intelligence)** has significant correlation with variable-8- (NA) Need Achievement (.607**), V-9- (E1) Self Awareness (.628**), V-10- (E2) Empathy (.638**), V-11- (E3) Self Motivation (.709**), V-12- (E4) Emotional Stability (.740**), V-13- (E5) Managing Relations (.534**), V-14- (E6) Integrity (.521**), V-15- (E7) Self Development (.603**), V-16- (E8) Value Orientation (.391**), V-17- (E9) Commitment (.508**) and V-18- (E10) Altruistic Behaviour (.361**).

*Where **- Significant at the 0.01 level,

* - Significant at the 0.05 level*
STUDY OF CORRELATION MATRIX OF THE FEMALE SAMPLE

There were 19 variables in the study which were inter correlated.

The size of the female sample was 149 including post graduate students of Faculty of social sciences, life sciences, commerce and arts of Aligarh Muslim University.

Here, \( N \) (sample size) = 149

\[
\text{df (degree of freedom)} = N - 2 \\
= 149 - 2 = 147
\]

It was found from the statistical tables that for 147 degrees of freedom, the value of correlation (r) must be at least .159, to be significant at .05 level and .208 to be significant at .01 level.

The correlation matrix is presented in Table No. 4.3 of the female sample which shows that many correlation coefficients are significant at .05 level and .01 level. These levels of significance were accepted for interpreting the results in the present study.
Variables significant in the inter correlation Table 4.3 are given below:

1. **Variable 1- (T1) Novelty Seeking**- a sub dimension of Temperament has significant negative correlation with variable-2- (T2) Harm Avoidance (-.308**), V-5- (C1) Self Directedness (-.417**) and V-6- (C2) Cooperativeness (-.269**).

2. **Variable 2- (T2) Harm Avoidance**- a sub dimension of Temperament has significant negative correlation with variable 1- (T1) Novelty Seeking (-.308**), V-4- (T4) Persistence (-.357**), V-5- (C1) Self Directedness (-.268**), and positive correlation with variable 3- (T3) Reward Dependence (.230**).

3. **Variable 3- (T3) Reward Dependence**- a sub dimension of Temperament has significant positive correlation with V-2- (T2) Harm Avoidance (.230*) and V-6- (C2) Cooperativeness (.428**).

4. **Variable 4- (T4) Persistence**- a sub dimension of Temperament has significant negative correlation with variable-2- (T2) Harm Avoidance (-.357**) and positive correlation with V-5- (C1) Self Directedness (.209*), V-6- (C2) Cooperativeness (.210*) and V-13- (E5) Managing Relations (.195*).

5. **Variable 5- (C1) Self Directedness**- a sub dimension of Character has significant negative correlation with variable-1- (T1) Novelty
Seeking (-.417**), V-2- (T2) Harm Avoidance (-.268**) and positive correlation with V-4- (T4) Persistence (.209*) and V-6- (C2) Cooperativeness (.562**).

6. **Variable 6- (C2) Cooperativeness-** a sub dimension of Character has significant negative correlation with variable-1-(T1) Novelty Seeking (-.269**) and positive correlation with V-3- (T3) Reward Dependence (.428**), V-4- (T4) Persistence (.210*), V-5- (C1) Self Directedness (.562**), V-7- (C3) Self Transcendence (.276**), V-10- (E2) Empathy (.170*) and V-17- (E9) Commitment (.189*).

7. **Variable 7- (C3) Self Transcendence-** a sub dimension of Character has significant positive correlation with V-6- (C2) Cooperativeness (.276**) and V-16- (E8) Value Orientation (.195*).

8. **Variable 8- (NA- Need Achievement) has significant correlation with variable-9- (E1) Self Awareness (.368**), V-10- (E2) Empathy (.432**), V-11- (E3) Self Motivation (.401**), V-12- (E4) Emotional Stability (.352**), V-13- (E5) Managing Relations (.549**), V-14- (E6) Integrity (.356**), V-15- (E7) Self Development (.377**), V-16- (E8) Value Orientation (.354**), V-17- (E9) Commitment (.365**), V-18- (E10) Altruistic Behaviour (.318**) and V-19- (E1) Total Emotional Intelligence (.593**).
9. Variable 9- (E1) Self Awareness- a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.368**), V-10- (E2) Empathy (.279**), V-11- (E3) Self Motivation (.393**), V-12- (E4) Emotional Stability (.558**), V-13- (E5) Managing Relations (.369**), V-14- (E6) Integrity (.453**), V-15- (E7) Self Development (.377**), V-16- (E8) Value Orientation (.176*), V-17- (E9) Commitment (.454**), V-18- (E10) Altruistic Behaviour (.418**) and V-19- (E1) Total Emotional Intelligence (.687**).

10. Variable 10- (E2) Empathy- a sub dimension of Emotional Intelligence has significant correlation with variable 6- (C2) Cooperativeness (.170*), V- 8- (NA) Need Achievement (.432**), V-9- (E1) Self Awareness (.279**), V-11- (E3) Self Motivation (.571**), V-12- (E4) Emotional Stability (.490**), V-13- (E5) Managing Relations (.207*), V-14- (E6) Integrity (.350**), V-15- (E7) Self Development (.578**), V-16- (E8) Value Orientation (.318**), V-17- (E9) Commitment (.413**), V-18- (E10) Altruistic Behaviour (.222**) and V-19 (E1) Total Emotional Intelligence (.731**).

11. Variable 11- (E3) Self Motivation- a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.401**), V-9- (E1) Self Awareness (.393**), V-10-
(E2) Empathy (.571**), V-12- (E4) Emotional Stability (.572**), V-13- (E5) Managing Relations (.411**), V-14- (E6) Integrity (.194*), V-15- (E7) Self Development (.482**), V-16- (E8) Value Orientation (.213**), V-17- (E9) Commitment (.514**), V-18- (E10) Altruistic Behaviour (.289**) and V-19- (EI) Total Emotional Intelligence (.764**).

12. Variable 12- (E4) Emotional Stability- a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.352**), V-9- (E1) Self Awareness (.558**), V-10- (E2) Empathy (.490**), V-11- (E3) Self Motivation (.527**), V-13- (E5) Managing Relations (.349**), V-14- (E6) Integrity (.453**), V-15- (E7) Self Development (.463**), V-16- (E8) Value Orientation (.347**), V-17- (E9) Commitment (.382**), V-18- (E10) Altruistic Behaviour (.619**) and V-19- (EI) Total Emotional Intelligence (.801**).

13. Variable 13- (E5) Managing Relations- a sub dimension of Emotional Intelligence has significant correlation with variable-4- (T4) Persistence (.195*), V-8- (NA) Need Achievement (.547**), V-9- (E1) Self Awareness (.369**), V-10- (E2) Empathy (.207**), V-11- (E3) Self Motivation (.411**), V-12- (E4) Emotional Stability (.349**), V-14- (E6) Integrity (.267**), V-15- (E7) Self Development (.165*), V-16- (E8) Value Orientation (.198*), V-17-
14. **Variable 14- (E6) Integrity**- a sub dimension of Emotional Intelligence has significant positive correlation with V-8- (NA) Need Achievement (.356**), V-9- (E1) Self Awareness (.453**), V-10- (E2) Empathy (.350**), V-11- (E3) Self Motivation (.194*), V-12- (E4) Emotional Stability (.453**), V-13- (E5) Managing Relations (.267**), V-15- (E7) Self Development (.235**), V-16- (E8) Value Orientation (.310**), V-17- (E9) Commitment (.318**), V-18- (E10) Altruistic Behaviour (.340**) and V-19- (EI) Total Emotional Intelligence (.583**).

15. **Variable 15- (E7) Self Development**- a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.377**), V-9- (E1) Self Awareness (.377**), V-10- (E2) Empathy (.578**), V-11- (E3) Self Motivation (.482**), V-12- (E4) Emotional Stability (.463**), V-13- (E5) Managing Relations (.165*), V-14- (E6) Integrity (.235**), V-16- (E8) Value Orientation (.281**), V-17- (E9) Commitment (.289**) and V-19- (EI) Total Emotional Intelligence (.621**).

16. **Variable 16- (E8) Value Orientation**- a sub dimension of Emotional Intelligence has significant correlation with variable-7-
(C3) Self Transcendence (.195*), V-8- (NA) Need Achievement (.354**), V-9- (E1) Self Awareness (.176*), V-10- (E2) Empathy (.318**), V-11- (E3) Self Motivation (.213**), V-12- (E4) Emotional Stability (347**), V-13- (E5) Managing Relations (.198*), V-14- (E6) Integrity (.310**), V-15- (E7) Self Development (.281**), V-17- (E9) Commitment (.261**), V-18- (E10) Altruistic Behaviour (.267**) and V-19- (E1) Total Emotional Intelligence (.474**).

17. **Variable 17- (E9) Commitment-** a sub dimension of Emotional Intelligence has significant correlation with variable-6- (C2) Cooperativeness (.189*), V-8- (NA) Need Achievement (.365**), V-9- (E1) Self Awareness (.454**), V-10- (E2) Empathy (.413**), V-11- (E3) Self Motivation (.514**), V-12- (E4) Emotional Stability (.382**), V-13- (E5) Managing Relations (.299**), V-14- (E6) Integrity (.318**), V-15- (E7) Self Development (.289**), V-16- (E8) Value Orientation (.261**), V-18- (E10) Altruistic Behaviour (.301**) and V-19- (E1) Total Emotional Intelligence (.650**).

18. **Variable 18- (E10) Altruistic Behaviour-** a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.318**), V-9- (E1) Self Awareness (.418**), V-10- (E2) Empathy (.222**), V-11- (E3) Self Motivation (.289**), V-12- (E4) Emotional Stability (.619**), V-13- (E5)
Managing Relations (.250**), V-14- (E6) Integrity (.340**), V-16-(E8) Value Orientation (.267**), V-17- (E9) Commitment (.301**) and V-19- (E1) Total Emotional Intelligence (.553**).

19. **Variable 19- (EI- Total Emotional Intelligence) has significant correlation with variable-8- (NA) Need Achievement (.593**), V-9-(E1) Self Awareness (.687**), V-10- (E2) Empathy (.731**), V-11-(E3) Self Motivation (.764**), V-12- (E4) Emotional Stability (.801**), V-13- (E5) Managing Relations (.546**), V-14- (E6) Integrity (.583**), V-15- (E7) Self Development (.621**), V-16-(E8) Value Orientation (.474**), V-17- (E9) Commitment (.650**) and V-18- (E10) Altruistic Behaviour (.553**).

Where **- Significant at the 0.01 level,

* - Significant at the 0.05 level}
STUDY OF CORRELATION MATRIX OF THE SOCIAL SCIENCES

SAMPLE

There were 19 variables in the study which were inter correlated. The size of the social sciences sample was 80 including post graduate students of Faculty of Social Sciences, Aligarh Muslim University.

Here, \( N \) (sample size) = 80

\[
\text{df (degree of freedom)} = N - 2 \\
= 80 - 2 = 78
\]

It was found from the statistical tables that for 78 degrees of freedom, the value of correlation \( (r) \) must be at least \( .205 \), to be significant at .05 level and \( .267 \) to be significant at .01 level.

The correlation matrix is presented in Table No. 4.4 of the social sciences sample which shows that many correlation coefficients are significant at .05 level and .01 level. These levels of significance were accepted for interpreting the results in the present study.
Variables significant in the Inter Correlation Table 4.4 are given below:

1. **Variable 1- (T1) Novelty Seeking**- a sub dimension of Temperament has significant negative correlation with variable-5- (C1) Self Directedness (-.344**) and V-6- (C2) Cooperativeness (-.274**).

2. **Variable 2- (T2) Harm Avoidance**- a sub dimension of Temperament has significant negative correlation with variable-4- (T4) Persistence (-.221*), V-5- (C1) Self Directedness (-.588**), V-6- (C2) Cooperativeness (-.420**) and V-14- (E6) Integrity (-.259**).

3. **Variable 3- (T3) Reward Dependence**- a sub dimension of Temperament has significant positive correlation with variable-5- (C1) Self Directedness (.370**), V-6- (C2) Cooperativeness (.530**), V-11- (E3) Self Motivation (.308**) and V-15- (E7) Self Development (.261*).

4. **Variable 4- T4- Persistence**- a sub dimension of Temperament has significant negative correlation with variable-2- (T2) Harm Avoidance (-.221*) and positive correlation with V-5- (C1) Self Directedness (.457**), V-6- (C2) Cooperativeness (.246*), V-8- (NA) Need Achievement (.350**), V-9- (E1) Self Awareness
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(.279*), V-13- (E5) Managing Relations (.385**), V-14- (E6) Integrity (.228*) and V-19- (EI) Total Emotional Intelligence (.278*).

5. **Variable 5- (C1) Self Directedness**- a sub dimension of Character has significant negative correlation with variable-1-(T1) Novelty Seeking (-.344**) and variable-2- (T2) Harm Avoidance (-.588**) and a positive correlation with V-3- (T3) Reward Dependence (.370**), V-4- (T4) Persistence (.457**), V-6- (C2) Cooperativeness (.631**), V-8- (NA) Need Achievement (.234**) and V-13- (E5) Managing Relations (.220*).

6. **Variable 6- (C2) Cooperativeness**- a sub dimension of Character has significant negative correlation with variable-1-(T1) Novelty Seeking (-.274**) and variable-2- (T2) Harm Avoidance (-.420**) and a positive correlation with V-3- (T3) Reward Dependence (.530**), V-4- (T4) Persistence (.246*) and V-5- (C1) Self Directedness (.631**).

7. **Variable 7- (C3) Self Transcendence**- a sub dimension of Character has significant positive correlation with V-8- (NA) Need Achievement (.252*) and V-14- (E6) Integrity (.301**).

8. **Variable 8- (NA- Need Achievement)** has significant correlation with variable-4- (T4) Persistence (.350**), V-5- (C1) Self Directedness (.234*), V-7- (C3) Self Transcendence (.252*), V-9-
(E1) Self Awareness (.371**), V-10- (E2) Empathy (.347**), V-11-  
(E3) Self Motivation (.496**), V-12- (E4) Emotional Stability  
(.500**), V-13- (E5) Managing Relations (.547**), V-14- (E6)  
Integrity (.354**), V-15- (E7) Self Development (.409**), V-16-  
(E8) Value Orientation (.330**), V-17- (E9) Commitment (.380**),  
V-18- (E10) Altruistic Behaviour (.347**) and V-19- (EI) Total  
Emotional Intelligence (.635**).

9. Variable 9- (E1) Self Awareness- a sub dimension of Emotional  
Intelligence has significant correlation with variable-8- (NA) Need  
Achievement (.371**), V-10- (E2) Empathy (.376**), V-11- (E3)  
Self Motivation (.400**), V-12- (E4) Emotional Stability (.550**),  
V-13- (E5) Managing Relations (.310**), V-14- (E6) Integrity  
(.375**), V-15- (E7) Self Development (.475**), V-17- (E9)  
Commitment (.318**), V-18- (E10) Altruistic Behaviour (.290**)  
and V-19- (EI) Total Emotional Intelligence (.668**).

10. Variable 10- (E2) Empathy- a sub dimension of Emotional  
Intelligence has significant correlation with variable 8- (NA) Need  
Achievement (.347**), V-9- (E1) Self Awareness (.376**), V-11-  
(E3) Self Motivation (.490**), V-12- (E4) Emotional Stability  
(.434**), V-14- (E6) Integrity (.322**), V-15- (E7) Self  
Development (.495**), V-16- (E8) Value Orientation (.375**),
11. Variable 11- (E3- Self Motivation) has significant correlation with variable-3- (T3) Reward Dependence (.308**), V-8- (NA) Need Achievement (.496**), V-9- (E1) Self Awareness (.400**), V-10- (E2) Empathy (.490**), V-12- (E4) Emotional Stability (.482**), V-13- (E5) Managing Relations (.522**), V-15- (E7) Self Development (.448**), V-17- (E9) Commitment (.455**), V-18- (E10) Altruistic Behaviour (.355**) and V-19- (EI) Total Emotional Intelligence (.751**).

12. Variable 12- (E4) Emotional Stability- a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.500**), V-9- (E1) Self Awareness (.550**), V-10- (E2) Empathy (.434**), V-11- (E3) Self Motivation (.482**), V-13- (E5) Managing Relations (.399**), V-14- (E6) Integrity (.441**), V-15- (E7) Self Development (.481**), V-16- (E8) Value Orientation (.356**), V-17- (E9) Commitment (.384**), V-18- (E10) Altruistic Behaviour (.483**) and V-19- (EI) Total Emotional Intelligence (.779**).

13. Variable 13- (E5) Managing Relations- a sub dimension of Emotional Intelligence has significant correlation with variable-4- (T4) Persistence (.385**), V-5- (C1) Self Directedness (.220**),
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V-8- (NA) Need Achievement (.547**), V-9- (E1) Self Awareness (.310**), V-11- (E3) Self Motivation (.522**), V-12- (E4) Emotional Stability (.399**), V-14- (E6) Integrity (.309**), V-16- (E8) Value Orientation (.248*), V-17- (E9) Commitment (.342**), V-18- (E10) Altruistic Behaviour (.391**) and V-19- (EI) Total Emotional Intelligence (.601**).

14. **Variable 14- (E6) Integrity**- a sub dimension of Emotional Intelligence has significant negative correlation with variable-2- (T2) Harm Avoidance (-.259*) and positive correlation with V-4- (T4) Persistence (.228*), V-7- (C3) Self Transcendence (.301**), V-8- (NA) Need Achievement (.354**), V-9- (E1) Self Awareness (.375**), V-10- (E2) Empathy (.322**), V-12- (E4) Emotional Stability (.441**), V-13- (E5) Managing Relations (.309**), V-15- (E7) Self Development (.304**), V-16- (E8) Value Orientation (.357**), V-17- (E9) Commitment (.314**), V-18- (E10) Altruistic Behaviour (.260*) and V-19- (EI) Total Emotional Intelligence (.577**).

15. **Variable 15- (E7) Self Development**- a sub dimension of Emotional Intelligence has significant correlation with variable-3- (T3) Reward Dependence (.261*), V-8- (NA) Need Achievement (.409**), V-9- (E1) Self Awareness (.475**), V-10- (E2) Empathy (.495**), V-11- (E3) Self Motivation (.448**), V-12- (E4) Emotional Stability
16. Variable 16- (E8) Value Orientation - a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.330**), V-10- (E2) Empathy (.375**), V-12- (E4) Emotional Stability (.356**), V-13- (E5) Managing Relations (.248*), V-14- (E6) Integrity (.357**), V-15- (E7) Self Development (.238*), V-17- (E9) Commitment (.343**) and V-19- (EI) Total Emotional Intelligence (.507**).

17. Variable 17- (E9) Commitment - a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.350**), V-9- (E1) Self Awareness (.318**), V-10- (E2) Empathy (.492**), V-11- (E3) Self Motivation (.455**), V-12- (E4) Emotional Stability (.384**), V-13- (E5) Managing Relations (.342**), V-14- (E6) Integrity (.314**), V-15- (E7) Self Development (.281*), V-16- (E8) Value Orientation (.343**) and V-19- (EI) Total Emotional Intelligence (.639**).

18. Variable 18- (E10) Altruistic Behaviour - a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.347**), V-9- (E1) Self Awareness
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(.290**), V-11- (E3) Self Motivation (.355**), V-12- (E4) Emotional Stability (.483**), V-13- (E5) Managing Relations (.391**), V-14- (E6) Integrity (.260*), V-16- (E8) Value Orientation (.238*) and V-19- (EI) Total Emotional Intelligence (.493**).

19. Variable 19- (EI- Total Emotional Intelligence) has significant correlation with variable-4- (T4) Persistence (.278*), V-8- (NA) Need Achievement (.635**), V-9- (E1) Self Awareness (.668**), V-10- (E2) Empathy (.699**), V-11- (E3) Self Motivation (.761**), V-12- (E4) Emotional Stability (.799**), V-13- (E5) Managing Relations (.601**), V-14- (E6) Integrity (.577**), V-15- (E7) Self Development (.636**), V-16- (E8) Value Orientation (.507**), V-17- (E9) Commitment (.639**) and V-18- (E10) Altruistic Behaviour (.493**).

[Where **- Significant at the 0.01 level,  
* - Significant at the 0.05 level]
STUDY OF CORRELATION MATRIX OF THE LIFE SCIENCES SAMPLE

There were 19 variables in the study which were inter correlated. The size of the life sciences sample was 86 including post graduate students of Faculty of Life Sciences, Aligarh Muslim University.

Here, $N$ (sample size) = 86

\[\text{df (degree of freedom)} = N - 2\]
\[= 86 - 2 = 84\]

It was found from the statistical tables that for 78 degrees of freedom, the value of correlation ($r$) must be at least 0.205, to be significant at 0.05 level and 0.267 to be significant at 0.01 level.

The correlation matrix is presented in Table No. 4.5 of the life sciences sample which shows that many correlation coefficients are significant at 0.05 level and 0.01 level. These levels of significance were accepted for interpreting the results in the present study.
Variables significant in the Inter Correlation Table 4.5 are given below:

1. **Variable 1- (T1) Novelty Seeking**- a sub dimension of Temperament has significant negative correlation with variable-2- (T2) Harm Avoidance (-.273*).

2. **Variable 2- (T2) Harm Avoidance**- a sub dimension of Temperament has significant negative correlation with variable 1- (T1) Novelty Seeking (-.273*), V-4- (T4) Persistence (-.383**), V-5- (C1) Self Directedness (-.296**) and V-7- (C3) Self Transcendence (-.314**) and positive correlation with variable 3- (T3) Reward Dependence (.313**).

3. **Variable 3- (T3) Reward Dependence**- a sub dimension of Temperament has significant positive correlation with variable- 2- (T2) Harm Avoidance (.313**).

4. **Variable 4- (T4) Persistence**- a sub dimension of Temperament has significant negative correlation with variable-2- (T2) Harm Avoidance (-.383**) and positive correlation with V-7- (C3) Self Transcendence (.236*).

5. **Variable 5- (C1- Self Directedness**- a sub dimension of Character has significant negative correlation with variable-2- (T2) Harm Avoidance (-.296*).
6. **Variable 6- (C2) Cooperativeness-** a sub dimension of Character has significant positive correlation with V-11- (E3) Self Motivation (.251*), V-17- (E9) Commitment (.250*) and V-19- (EI) Total Emotional Intelligence (.240*).

7. **Variable 7- (C3) Self Transcendence-** a sub dimension of Character has significant positive correlation with V-4- (T4) Persistence (.236*) and negative correlation with V-2- (T2) Harm Avoidance (-.314**).

8. **Variable 8- (NA- Need Achievement) has significant correlation with variable-9- (E1) Self Awareness (.408**), V-10- (E2) Empathy (.465**), V-11- (E3) Self Motivation (.407**), V-12- (E4) Emotional Stability (.266*), V-13- (E5) Managing Relations (.422**), V-14- (E6) Integrity (.329**), V-15- (E7) Self Development (.231*), V-16- (E8) Value Orientation (.237*), V-17- (E9) Commitment (.345**) and V-19- (EI) Total Emotional Intelligence (.559**).

9. **Variable 9- (E1- Self Awareness-** a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.408**), V-10- (E2) Empathy (.284**), V-11- (E3) Self Motivation (.380**), V-12- (E4) Emotional Stability (.472**), V-13- (E5) Managing Relations (.377**), V-14- (E6) Integrity (.327**), V-17- (E9) Commitment (.557**), V-18- (E10) Altruistic
Behaviour (.231*) and V-19- (EI) Total Emotional Intelligence (.644**).

10. **Variable 10- (E2- Empathy)** - a sub dimension of Emotional Intelligence has significant correlation with variable 8- (NA) Need Achievement (.465**), V-9- (E1) Self Awareness (.284**), V-11- (E3) Self Motivation (.453**), V-12- (E4) Emotional Stability (.402**), V-13- (E5) Managing Relations (.286**), V-15- (E7) Self Development (.517**), V-16- (E8) Value Orientation (.245*), V-17- (E9) Commitment (.382**) and V-19- (EI) Total Emotional Intelligence (.683**).

11. **Variable 11- (E3- Self Motivation)** - a sub dimension of Emotional Intelligence has significant correlation with variable-6- (C2) Cooperativeness (.251*), V-8- (NA) Need Achievement (.407**), V-9- (E1) Self Awareness (.380**), V-10- (E2) Empathy (.453**), V-12- (E4) Emotional Stability (.442**), V-13- (E5) Managing Relations (.371**), V-15- (E7) Self Development (.436**), V-17- (E9) Commitment (.433**) and V-19- (EI) Total Emotional Intelligence (.728**).

12. **Variable 12- (E4- Emotional Stability)** - a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.266*), V-9- (E1) Self Awareness (.472**), V-10- (E2) Empathy (.402**), V-11- (E3) Self Motivation
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(.442**), V-13- (E5) Managing Relations (.438**), V-14- (E6) Integrity (.361**), V-15- (E7) Self Development (.462**), V-17- (E9) Commitment (.431**), V-18- (E10) Altruistic Behaviour (.460**) and V-19- (EI) Total Emotional Intelligence (.760**).

13. **Variable 13- (E5- Managing Relations-** a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.422**), V-9- (E1) Self Awareness (.377**), V-10- (E2) Empathy (.286**), V-11- (E3) Self Motivation (.371**), V-12- (E4) Emotional Stability (.438**), V-14- (E6) Integrity (.329**), V-15- (E7) Self Development (.316**), V-17- (E9) Commitment (.327**) and V-19- (EI) Total Emotional Intelligence (.614**).

14. **Variable 14- (E6- Integrity-** a sub dimension of Emotional Intelligence has significant positive correlation with V-8- (NA) Need Achievement (.329**), V-9- (E1) Self Awareness (.327**), V-12- (E4) Emotional Stability (.361**), V-13- (E5) Managing Relations (.329**), V-17- (E9) Commitment (.315**), V-18- (E10) Altruistic Behaviour (.266*) and V-19- (EI) Total Emotional Intelligence (.472**).

15. **Variable 15- (E7- Self Development-** a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.231*), V-10- (E2) Empathy (.571**), V-11- (E3)
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Self Motivation (.436**), V-12- (E4) Emotional Stability (.462**), V-13- (E5) Managing Relations (.316**), V-17- (E9) Commitment (.214*) and V-19- (EI) Total Emotional Intelligence (.545**).

16. Variable 16- (E8- Value Orientation- a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.237*), V-10- (E2) Empathy (.245*), V-17- (E9) Commitment (.406**) and V-19- (EI) Total Emotional Intelligence (.364**).

17. Variable 17- (E9- Commitment- a sub dimension of Emotional Intelligence has significant correlation with variable-6- (C2) Cooperativeness (.250*), V-8- (NA) Need Achievement (.345**), V-9- (E1) Self Awareness (.557**), V-10- (E2) Empathy (.382**), V-11- (E3) Self Motivation (.433**), V-12- (E4) Emotional Stability (.431**), V-13- (E5) Managing Relations (.327**), V-14- (E6) Integrity (.315**), V-15- (E7) Self Development (.214*), V-16- (E8) Value Orientation (.406**), V-18- (E10) Altruistic Behaviour (.224*) and V-19- (EI) Total Emotional Intelligence (.713**).

18. Variable 18- (E10- Altruistic Behaviour- a sub dimension of Emotional Intelligence has significant correlation with variable-9- (E1) Self Awareness (.231*), V-12- (E4) Emotional Stability (.460**), V-14- (E6) Integrity (.266*), V-17- (E9) Commitment (.224*) and V-19- (EI) Total Emotional Intelligence (.367**).
19. Variable 19- (EI- Total Emotional Intelligence) has significant correlation with variable-6- (C2) Cooperativeness (.240*), V-8- (NA) Need Achievement (.559**), V-9- (E1) Self Awareness (.644**), V-10- (E2) Empathy (.683**), V-11- (E3) Self Motivation (.728**), V-12- (E4) Emotional Stability (.760**), V-13- (E5) Managing Relations (.614**), V-14- (E6) Integrity (.472**), V-15- (E7) Self Development (.545**), V-16- (E8) Value Orientation (.364**), V-17- (E9) Commitment (.713**) and V-18- (E10) Altruistic Behaviour (.367**).

[Where **- Significant at the 0.01 level,
  *- Significant at the 0.05 level]
STUDY OF CORRELATION MATRIX OF THE COMMERCE SAMPLE

There were 19 variables in the study which were inter correlated.

The size of the commerce sample was 69 including post graduate students of Faculty of Commerce, Aligarh Muslim University.

Here, \( N \) (sample size) = 69

\[ df \text{ (degree of freedom)} = N - 2 \]

\[ = 69 - 2 = 67 \]

It was found from the statistical tables that for 67 degrees of freedom, the value of correlation \( r \) must be at least .273, to be significant at .05 level and .354 to be significant at .01 level.

The correlation matrix is presented in Table No. 4.6 of the commerce sample which shows that many correlation coefficients are significant at .05 level and .01 level. These levels of significance were accepted for interpreting the results in the present study.
Variables significant in the inter correlation Table 4.6 are given below:

1. **Variable 1- (T1) Novelty Seeking**- a sub dimension of Temperament has significant negative correlation with variable-2- (T2) Harm Avoidance (-.463**), V-3- (T3) Reward Dependence (-.306*), V-5- (C1) Self Directedness (-.341**), V-6- (C2) Cooperativeness (-.255*).

2. **Variable 2- (T2) Harm Avoidance**- a sub dimension of Temperament has significant negative correlation with variable-1- (T1) Novelty Seeking (-.463**) and V-4- (T4) Persistence (-.361**).

3. **Variable 3- (T3) Reward Dependence**- a sub dimension of Temperament has significant negative correlation with variable-1- (T1) Novelty Seeking (-.306*), and positive correlation with variable-6- (C2) Cooperativeness (.439**) and V-7- (C3) Self Transcendence (.372**).

4. **Variable 4- (T4) Persistence**- a sub dimension of Temperament has significant negative correlation with variable-2- (T2) Harm Avoidance (-.361**) and positive correlation with V-5- (C1) Self Directedness (.293*) and V-6- (C2) Cooperativeness (.323**).

5. **Variable 5- (C1) Self Directedness**- a sub dimension of Character has significant negative correlation with variable-1- (T1) Novelty
Seeking (.341**) and positive correlation with variable- 4- (T4) Persistence (.293*), V-2 (C2) Cooperativeness (.621**) and V-16- (E8) Value Orientation (.302*).

6. **Variable 6- (C2) Cooperativeness**- a sub dimension of Character has significant positive correlation with V-3- (T3) Reward Dependence (.439**), V-4- (T4) Persistence (.323**), V-5- (C1) Self Directedness (.621**) and V-7- (C3) Self Transcendence (.374**) and negative correlation with variable- 1-(T1) Novelty Seeking (-.255*).

7. **Variable 7- (C3) Self Transcendence**- a sub dimension of Character has significant positive correlation with V-3- (T3) Reward Dependence (.372**) and V-6- (C2) Cooperativeness (.374**).

8. **Variable 8- (NA- Need Achievement)** has significant correlation with variable-9- (E1) Self Awareness (.495**), V-10- (E2) Empathy (.575**), V-11- (E3) Self Motivation (.505**), V-12- (E4) Emotional Stability (.515**), V-13- (E5) Managing Relations (.450**), V-14- (E6) Integrity (.442**), V-15- (E7) Self Development (.423**), V-17- (E9) Commitment (.319**), V-18- (E10) Altruistic Behaviour (.337**) and V-19- (E1) Total Emotional Intelligence (.711**).

9. **Variable 9- (E1) Self Awareness**- a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.495**), V-10- (E2) Empathy (.575**), V-11- (E3) Self Motivation (.505**), V-12- (E4) Emotional Stability (.515**), V-13- (E5) Managing Relations (.450**), V-14- (E6) Integrity (.442**), V-15- (E7) Self Development (.423**), V-17- (E9) Commitment (.319**), V-18- (E10) Altruistic Behaviour (.337**) and V-19- (E1) Total Emotional Intelligence (.711**).
Achievement (.495**), V-10- (E2) Empathy (.426**), V-11- (E3) Self Motivation (.358**), V-12- (E4) Emotional Stability (.593**), V-13- (E5) Managing Relations (.299*), V-14- (E6) Integrity (.450**), V-15- (E7) Self Development (.375**), V-18- (E10) Altruistic Behaviour (.370**) and V-19- (E1) Total Emotional Intelligence (.698**).

10. **Variable 10- (E2) Empathy-** a sub dimension of Emotional Intelligence has significant correlation with variable 8- (NA) Need Achievement (.575**), V-9- (E1) Self Awareness (.426**), V-11- (E3) Self Motivation (.430**), V-12- (E4) Emotional Stability (.541**), V-14- (E6) Integrity (.428**), V-15- (E7) Self Development (.529**), V-16- (E8) Value Orientation (.269*), and V-19- (E1) Total Emotional Intelligence (.716**).

11. **Variable 11- (E3) Self Motivation-** a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.505**), V-9- (E1) Self Awareness (.358**), V-10- (E2) Empathy (.430**), V-12- (E4) Emotional Stability (.503**), V-13- (E5) Managing Relations (.352**), V-14- (E6) Integrity (.312**), V-15- (E7) Self Development (.458**), V-17- (E9) Commitment (.432**), V-18- (E10) Altruistic Behaviour (.405**) and V-19- (E1) Total Emotional Intelligence (.736**).
12. **Variable 12- (E4) Emotional Stability**- a sub dimension of Emotional Intelligence has significant correlation with variable-8-(NA) Need Achievement (.515**), V-9- (E1) Self Awareness (.593**), V-10- (E2) Empathy (.541**), V-11- (E3) Self Motivation (.503**), V-14- (E6) Integrity (.370**), V-15- (E7) Self Development (.428**), V-16- (E8) Value Orientation (.240*), V-18-(E10) Altruistic Behaviour (.598**) and V-19- (EI) Total Emotional Intelligence (.782**).

13. **Variable 13- (E5) Managing Relations**- a sub dimension of Emotional Intelligence has significant correlation with variable-8-(NA) Need Achievement (.450**), V-9- (E1) Self Awareness (.299*), V-11- (E3) Self Motivation (.352**), V-14- (E6) Integrity (.458**), V-15- (E7) Self Development (.383**) and V-19- (EI) Total Emotional Intelligence (.532**).

14. **Variable 14- (E6) Integrity**- a sub dimension of Emotional Intelligence has significant positive correlation with V-8- (NA) Need Achievement (.442**), V-9- (E1) Self Awareness (.450**), V-10-(E2) Empathy (.428**), V-11- (E3) Self Motivation (.312**), V-12- (E4) Emotional Stability (.370**), V-13- (E5) Managing Relations (.458**), V-15- (E7) Self Development (.257**), V-18-(E10) Altruistic Behaviour (.347**) and V-19- (EI) Total Emotional Intelligence (.656**).
15. **Variable 15- (E7) Self Development** - a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.423**), V-9- (E1) Self Awareness (.375**), V-10- (E2) Empathy (.529**), V-11- (E3) Self Motivation (.458**), V-12- (E4) Emotional Stability (.428**), V-13- (E5) Managing Relations (.383**), V-14- (E6) Integrity (.257*) and V-19- (EI) Total Emotional Intelligence (.624**).

16. **Variable 16- (E8) Value Orientation** - a sub dimension of Emotional Intelligence has significant correlation with variable-5- (C1) Self Directedness (.302*), V-10- (E2) Empathy (.269*), V-12- (E4) Emotional Stability (.240*), V-17- (E9) Commitment (.314**) and V-19- (EI) Total Emotional Intelligence (.352**).

17. **Variable 17- (E9) Commitment** - a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.319**), V-11- (E3) Self Motivation (.432**), V-16- (E8) Value Orientation (.314**) and V-19- (EI) Total Emotional Intelligence (.403**).

18. **Variable 18- (E10) Altruistic Behaviour** - a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.337**), V-9- (E1) Self Awareness (370**), V-11- (E3) Self Motivation (.405**), V-12- (E4)
Emotional Stability (.598**), V-14- (E6) Integrity (.347**) and V-19- (EI) Total Emotional Intelligence (.567**).

19. **Variable 19- (EI- Total Emotional Intelligence)** has significant correlation with variable-8- (NA) Need Achievement (.711**), V-9- (E1) Self Awareness (.698**), V-10- (E2) Empathy (.716**), V-11- (E3) Self Motivation (.736**), V-12- (E4) Emotional Stability (.782**), V-13- (E5) Managing Relations (.532**), V-14- (E6) Integrity (.656**), V-15- (E7) Self Development (.624**), V-16- (E8) Value Orientation (.352**), V-17- (E9) Commitment (.403**) and V-18- (E10) Altruistic Behaviour (.567**).

*Where **- Significant at the 0.01 level,

*- Significant at the 0.05 level*
STUDY OF CORRELATION MATRIX OF THE ARTS SAMPLE

There were 19 variables in the study which were intercorrelated. The size of the arts sample was 65 including post graduate students of Faculty of Arts, Aligarh Muslim University.

Here, \( N \) (sample size) = 65

\[
df = N - 2 = 65 - 2 = 63
\]

It was found from the statistical tables that for 63 degrees of freedom, the value of correlation (r) must be at least 0.273, to be significant at 0.05 level and 0.354 to be significant at 0.01 level.

The correlation matrix is presented in Table No. 4.7 of the Arts sample which shows that many correlation coefficients are significant at 0.05 level and 0.01 level. These levels of significance were accepted for interpreting the results in the present study.
Variables significant in the inter correlation Table 4.7 are given below:

1. **Variable 1- (T1) Novelty Seeking**- a sub dimension of Temperament has significant negative correlation with variable-4- (T4) Persistence (-.323**), V-5- (C1) Self Directedness (-.277*) and V-6- (C2) Cooperativeness (-.268*).

2. **Variable 2- (T2) Harm Avoidance**- a sub dimension of Temperament has significant negative correlation with variable-4- (T4) Persistence (-.252*).

3. **Variable 3- (T3) Reward Dependence**- a sub dimension of Temperament has significant positive correlation with variable-7- (C3) Self Transcendence (.367**), V-11- (E3) Self Motivation (.259*), V-12- (E4) Emotional Stability (.277*), V-13- (E5) Managing Relations (.311**), V-18- (E10) Altruistic Behaviour (.318**) and V-19- (E1) Total Emotional Intelligence (.341**).

4. **Variable 4- (T4) Persistence**- a sub dimension of Temperament has significant negative correlation with variable-1-(T1) Novelty Seeking (-.323**) and V-2- (T2) Harm Avoidance (-.252*).

5. **Variable 5- (C1) Self Directedness**- a sub dimension of Character has significant negative correlation with variable-1- (T1) Novelty Seeking (-.277*) and positive correlation with V-6- (C2) Cooperativeness (.393**) and V-17- (E9) Commitment (.249*).
6. **Variable 6- (C2) Cooperativeness-** a sub dimension of Character has significant negative correlation with variable-1- (T1) Novelty Seeking (-.268*) and positive correlation with V-5- (C1) Self Directedness (.393**) and V-17- (E9) Commitment (.297*).

7. **Variable 7- (C3) Self Transcendence-** a sub dimension of Character has significant positive correlation with variable-3- (T3) Reward Dependence (.367**), V-11- (E3) Self Motivation (.286*) and V-13- (E5) Managing Relations (.306**).

8. **Variable 8- (NA- Need Achievement) has significant correlation with variable-11- (E3) Self Motivation (.409**), V-13- (E5) Managing Relations (.408**), V-15- (E7) Self Development (.245*), V-16- (E8) Value Orientation (.376**), V-17- (E9) Commitment (.392**), V-18- (E10) Altruistic Behaviour (.294*) and V-19- (EI) Total Emotional Intelligence (.453**).

9. **Variable 9- (E1) Self Awareness-** a sub dimension of Emotional Intelligence has significant correlation with V-11- (E3) Self Motivation (.326**), V-12- (E4) Emotional Stability (.477**), V-14- (E6) Integrity (.304**), V-15- (E7) Self Development (.405**), and V-19- (EI) Total Emotional Intelligence (.590**).

10. **Variable 10- (E2) Empathy-** a sub dimension of Emotional Intelligence has significant correlation with variable-11- (E3) Self Motivation (.434**), V-12- (E4) Emotional Stability (.462**),
Chapter 4 Analysis And Interpretation of Data

V-14- (E6) Integrity (.289*) , V-15- (E7) Self Development (.403**) , V-16- (E8) Value Orientation (.279*) , V-17- (E9) Commitment (.343**) , and V-19- (EI) Total Emotional Intelligence (.623**).

11. **Variable 11- (E3) Self Motivation**- a sub dimension of Emotional Intelligence has significant correlation with variable- 3- (T3) Reward Dependence (.259*), V-7- (C3) Self Transcendence (.286*), V- 8- (NA) Need Achievement (.409**), V-9- (E1) Self Awareness (.326**), V-10- (E2) Empathy (.434**), V-12- (E4) Emotional Stability (.378**), V-13- (E5) Managing Relations (.288*), V-15- (E7) Self Development (.461**), V-16- (E8) Value Orientation (.275*), V-17- (E9) Commitment (.408**), V-18- (E10) Altruistic Behaviour (.295*) and V-19- (EI) Total Emotional Intelligence (.748**).

12. **Variable 12- (E4) Emotional Stability**- a sub dimension of Emotional Intelligence has significant correlation with variable- 3- (T3) Reward Dependence (.277*), V-9- (E1) Self Awareness (.477**), V-10- (E2) Empathy (.462**), V-11- (E3) Self Motivation (.378**), V-14- (E6) Integrity (.413**), V-15- (E7) Self Development (.483**), V-16- (E8) Value Orientation (.426**), V-18- (E10) Altruistic Behaviour (.369**) and V-19- (EI) Total Emotional Intelligence (.731**).
13. **Variable 13- (E5) Managing Relations**- a sub dimension of Emotional Intelligence has significant correlation with variable- 3- (T3) Reward Dependence (.311*), V-7- (C3) Self Transcendence (.306*), V- 8- (NA) Need Achievement (.408**), V-11- (E3) Self Motivation (.288*), and V-19- (EI) Total Emotional Intelligence (.403**).

14. **Variable 14- (E6) Integrity**- a sub dimension of Emotional Intelligence has significant positive correlation with variable- 9- (E1) Self Awareness (.304**), V-10- (E2) Empathy (.289*), V-12- (E4) Emotional Stability (.413**), V-16- (E8) Value Orientation (.373**) and V-19- (EI) Total Emotional Intelligence (.539**).

15. **Variable 15- (E7) Self Development**- a sub dimension of Emotional Intelligence has significant correlation with variable- 8- (NA) Need Achievement (.245*), V-9- (E1) Self Awareness (.405**), V-10- (E2) Empathy (.403**), V-11- (E3) Self Motivation (.461**), V-12- (E4) Emotional Stability (.483**), V-16- (E8) Value Orientation (.357**), V-17- (E9) Commitment (.251*) and V-19- (EI) Total Emotional Intelligence (.640**).

16. **Variable 16- (E8) Value Orientation**- a sub dimension of Emotional Intelligence has significant correlation with variable-8- (NA) Need Achievement (.376**), V-10- (E2) Empathy (.279*), V-11- (E3) Self Motivation (.275*), V-12- (E4) Emotional Stability
Chapter -4 Analysis And Interpretation of Data

(.426**), V-14- (E6) Integrity (.373**), V-15- (E7) Self Development (.357**), V-17- (E9) Commitment (.258*), V-18- (E10) Altruistic Behaviour (.257*) and V-19- (EI) Total Emotional Intelligence (.566**).

17. **Variable 17- (E9) Commitment**- a sub dimension of Emotional Intelligence has significant correlation with variable- 5- (C1) Self Directedness (.249*), V-6- (C2) Cooperativeness (.297*), V-8- (NA) Need Achievement (.392**), V-10- (E2) Empathy (.343**), V-11- (E3) Self Motivation (.408**), V-15- (E7) Self Development (.251*), V-16- (E8) Value Orientation (.258*) and V-19- (EI) Total Emotional Intelligence (.473**).

18. **Variable 18- (E10) Altruistic Behaviour**- a sub dimension of Emotional Intelligence has significant correlation with variable- 3- (T3) Reward Dependence (.318**), V-8- (NA) Need Achievement (.294*), V-11- (E3) Self Motivation (.275*), V-12- (E4) Emotional Stability (.369**), V-16- (E8) Value Orientation (.257*) and V-19- (EI) Total Emotional Intelligence (.398**).

19. **Variable 19- (EI- Total Emotional Intelligence)** has significant correlation with variable- 3- (T3) Reward Dependence (.341**), V-8- (NA) Need Achievement (.453**), V-9- (E1) Self Awareness (.590**), V-10- (E2) Empathy (.623**), V-11- (E3) Self Motivation (.748**), V-12- (E4) Emotional Stability (.731**), V-13- (E5)
Managing Relations (.403**), V-14- (E6) Integrity (.539**), V-15- (E7) Self Development (.640**), V-16- (E8) Value Orientation (.566**), V-17- (E9) Commitment (.473**) and V-18- (E10) Altruistic Behaviour (.398**).

[Where **- Significant at the 0.01 level,
* - Significant at the 0.05 level]

RESULT AND DISCUSSION OF INTER CORRELATION MATRIX

Novelty Seeking- a sub dimension of temperament has significant negative correlation with Harm Avoidance, Reward Dependence and Persistence (sub dimensions of Temperament) along with Self Directedness, Cooperativeness and Self Transcendence (all the sub dimensions of Character) in all the groups. Novelty seeking means exhilaration in response to novel stimuli or cues. Subjects high in Novelty seeking show an increased frequency of explanatory behaviour, impulsive decision making, a quick loss of temper and active avoidance of frustration. Because the personality that is Novelty Seeking is impulsive and losses temper quickly hence there is a lack of responsibility that goes along being persistent, self directed, self transcendent and cooperative. This result also shows that they are not reward dependent and are not avoiding harm. This means they are not taking into consideration other’s opinion and they also are not careful to avoid harm.
Harm Avoidance- a sub dimension of temperament has significant negative correlation with Reward Dependence, Novelty seeking and Persistence (sub dimensions of Temperament) and Self Directedness, Cooperativeness and Self Transcendence (all the sub dimensions of Character) in all the groups. Persons having Harm Avoidance are pessimistic, worrying, fatigable, shy with strangers and become tense in unfamiliar situations. A pessimistic personality does not have interest and is unwilling to take risk on any novel idea/issue and shows frustration and fatigue when faced with failures. Moreover this personality displays an attitude which is very self centered as it lacks cooperativeness and self directedness. Having an aesthetic sensitivity and pursuance of spiritual values is also lacking.

Reward Dependence- a sub dimension of temperament has a positive significant correlation with Self Directedness, Cooperativeness and Self Transcendence (the three sub dimensions of Character). Reward Dependence has positive correlation with Emotional intelligence having sub dimensions as Self Motivation, Self Development, Managing Relations and Total Emotional Intelligence in total sample displaying a personality trait which is extrinsically motivated to help others. Reward dependence reflects the tendency to maintain or pursue ongoing behaviour. Subjects with high scores on Reward Dependence are described as sentimental, socially attached and dependent on approval of others. The result shows that reward dependence with other sub dimensions displays a personality that follows its own individual chosen
goals, is responsible, has strong affiliation with God and mystical participation. It is seen that it is not only dependent on approval of others but also on approval of God towards his actions/deeds.

Persistence- a sub dimension of temperament is significantly and positively correlated to Self Directedness, Cooperativeness (sub dimensions of Character) and Reward Dependence (a sub dimension of Temperament). The common variable negatively correlated to Persistence in all the groups is Harm Avoidance (a sub dimension of Temperament). Persistent reflects the perseverance in behaviour despite frustration and fatigue. This trait does not surrender to fatigue and frustration because of its optimistic nature. And Persistence is significantly correlated to Need Achievement and Managing Relations in Total sample. Moreover the person is highly motivated and uses his own emotional awareness in managing relations and resolving conflicts in relationship.

Self Directedness- a sub dimension of Character is positively correlated to Persistence (a sub dimension of Temperament) and Cooperativeness (a sub dimension of Character) in all the groups. The personality is motivated towards its own voluntary chosen goals and is persistent in the achievement of goal. The person also keeps the spirit of cooperativeness with others in consideration and does not want to take risk with novel ideas and actions.

Cooperativeness- a sub dimension of character is positively correlated to Reward Dependence and Persistence (sub dimensions of Temperament) and
Self Directedness (a sub dimension of Character) in all the groups. Cooperativeness is based on the concept of the self as an integral of humanity or society from this self concept are derived feelings of community, compassion, conscience and charity. This personality displays a person who because of being dependent on approval of others and being persistent in his actions shows a cooperative nature towards others. In this way he/she can earn the appreciation and approval of others.

Self Transcendence- a sub dimension of character is positively correlated to Reward Dependence (a sub dimension of Temperament) and Cooperativeness (a sub dimension of Character) in Total sample. Self Transcendence is based on the concept of self as an integral part of the universe and its source; from this self concept are derived feelings of mystical participation, religious faith and unconditional equanimity and patience. This shows the personality of extrinsically spiritually oriented

Need Achievement is significantly and positively correlated with Persistence (a sub dimension of Temperament) in Total sample; with Self Directedness and Cooperativeness (sub dimensions of Character) in Total sample, male and female groups. Need Achievement has maintained a positive and significant relationship with almost all the sub dimensions of Emotional Intelligence in all the groups. It is seen that Need achievement is a part of emotional intelligence; therefore persons with high Emotional Intelligence have high Need Achievement. Emotions and motivation are inter-
linked because no motivation can exist without having an emotional base or vice versa.

FACTOR ANALYSIS

Factor analysis attempts to identify underlying variable, or factors, that explain the pattern of correlation within a set of observed variable. Factor analysis is often used in data reduction to identify a small number of factors that explain most of the variance observed in a much larger number of manifest variables.

Therefore, the principal concern of factor analysis is the resolution of a set of variables linearly in terms of a smaller number of categories or factors. This can be done by the analysis of the correlations among the variables. In the present study, the Principal component method followed by Varimax rotation was used. The factor analysis led to the emergence of 7 different factors accounting for variance in 19 variables in the Total Sample.

Factor Loadings

The major statistical goal in a factor analysis is to substitute a matrix of factor loadings (i.e. factor matrix) for a correlation matrix. A factor loading matrix or factor matrix is a ‘n’ by ‘m’ matrix of correlation coefficients between the original variables and their factors, where ‘n’ is the number of variables and ‘m’ is the number of retained common factors.
Factor loading are the basis for putting labels to different factors. A decision needs to be made regarding what constitutes a significant loading. A rule of thumb frequently used is that factor loadings of 0.30 or more in terms of absolute value are considered to be significant. However, the significance of a factor loading will depend on the sample size. Stevens (1992) produced a table of critical values against which loadings can be compared. To summarize, he recommended that for a sample size of 300 it should be greater than .298.

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<thead>
<tr>
<th>TABLE- 4.8 UNROTATED MATRIX OF TOTAL SAMPLE</th>
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<tbody>
<tr>
<td>VARIABLES/COMPONENTS</td>
</tr>
<tr>
<td>T1- Novelty Seeking</td>
</tr>
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<td>T2- Harm Avoidance</td>
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<td>T3- Reward Dependence</td>
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<td>E5- Managing Relations</td>
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</tr>
<tr>
<td>E7- Self Development</td>
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<td>E8- Value Orientation</td>
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<td>E9- Commitment</td>
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<td>E10- Altruistic Behaviour</td>
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<td>E1- Total Emotional Intelligence</td>
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Extraction Method Principal Component Analysis
7 Components extracted.
### TABLE- 4.9 ROTATED MATRIX OF TOTAL SAMPLE

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<th>4</th>
<th>5</th>
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*Extraction Method: Principal component Analysis*

*Rotation Method: Varimax with Kaiser Normalization.*
FACTORS DERIVED AND THEIR INTERPRETATION
OF TOTAL SAMPLE

Once all significant loadings are identified, the analyst attempts to assign some meaning to the factors based on the patterns of the factor loadings. To do this, we examine the significant loadings for each factor (column). In general, the larger the absolute size of the factor loading for a variable, the more important the variable is in interpreting the factor. The sign of the loadings also needs to be considered in labeling the factors. Considering all the variable’s loading on a factor, including the size and sign of the loading, the investigator attempts to determine as to what the underlying factor may represent. In the present study, 7 factors were extracted of the Total sample.

The detailed discussion of factor loadings, their name and their interpretation is given below. The figures within brackets indicate the factor loading of the concerned variables.

FACTOR 1. The highest loadings on Factor 1 are given by variable 8- Need Achievement (0.827) followed by variable 10- Empathy (0.796), variable 15-Self Development (0.792) and variable 19 Total Emotional Intelligence (0.703), whereas, variable 11- Self Motivation (0.628), variable 12- Emotional Stability (0.561), variable 9- Self Awareness
and variable 17- Commitment (0.351) have shown moderate loadings on this factor. So the Factor-1 was identified as “Emotional Intelligence with High Need Achievement”.

“Emotional Intelligence with High Need Achievement”

The factor has been identified as Emotional Intelligence as it has significant loading on six sub-dimensions of Emotional Intelligence (i.e., Empathy, Self Development, Self Awareness, Self Motivation, Emotional Stability and Commitment) along with high loading on Need Achievement. This factor was found and named in all the groups except life sciences group. Though Need Achievement was present with Emotional Intelligence variable in life sciences group, but with low loading. The sub dimensions of Emotional Intelligence were found to be significantly highly correlated with need achievement. Though the sub-dimensions of Emotional Intelligence differed in the groups, the number of sub dimensions with positive and significant loading was five to nine out of ten. Self Motivation is found to be common in all. The sub dimension Managing Relations and Commitment of Emotional Intelligence did not emerge as a variable in total sample but it was found in rest of the groups. Altruistic Behaviour another important dimension of Emotional Intelligence was found only in female and commerce group. Value Orientation was found in female, social sciences, arts and commerce group. Male and female group differed in Value Orientation and Altruistic Behaviour. Commerce is the only group
having Altruistic Behaviour but lacking commitment which is present in arts and social sciences group. Art is the only group having only four sub dimensions of positive and significant loading with the Total Emotional Intelligence, namely Self Motivation, Managing Relations, Value Orientation and Commitment.

It is seen that Need achievement is a part of Emotional Intelligence, since high emotional intelligence have a high need achievement. Emotions and motivation are inter-linked because no motivation can exist without having an emotional base or vice versa.

**FACTOR 2.** Variable 13- Managing Relations (0.811) has given highest loadings on factor 2, along with moderate loadings of variable 8- Need Achievement (0.559), variable 11-Self Motivation (0.425), variable 17-Commitment (0.525), variable 19- Total Emotional Intelligence (0.492), variable 14- Integrity (0.357), variable 9- Self Awareness (0.386) and low loading on variable 3- Reward Dependence (0.301) and variable 4- Persistence (0.302). The factor-2 has been named "**Extrinsically Motivated Emotional Intelligence**".

**“Extrinsically motivated Emotional Intelligence”**.

The second trait named as extrinsically motivated as it is socially oriented as it has variables like Reward Dependence, Persistence, Need Achievement, Self Awareness, Self Motivation, Managing Relations,
Integrity, Commitment and Total Emotional Intelligence. And the self awareness is towards the external side of self. Self motivation in this factor will also be of extrinsic type.

This factor emerged in Total sample, social sciences, life sciences and male group. Need achievement is common in all the three groups. It was named extrinsically motivated because of the positive significant loading on variables like Reward Dependence, Integrity, Persistence in Total sample and male sample. Altruistic Behaviour, Integrity have a high loading on social sciences and life sciences group. It is seen that all the sub dimensions of Emotional Intelligence as a group can be called extraversion. And the Need Achievement is extrinsic type, more socially oriented.

**FACTOR 3.** Variable 18- Altruistic Behaviour (0.781) and variable 12- Emotional Stability (0.630) have given the highest loadings on factor-3 whereas variable 9- Self Awareness (0.470), variable 19- Total Emotional intelligence (0.426), variable 14- Integrity (0.411), variable 7- Self Transcendence (0.301) and variable 8- Need Achievement (0.302) have given the moderate and low loadings on factor 3. This factor has been identified as "Spiritual Orientation".

"Spiritual Orientation"

This factor has positive loading on Self Transcendence, Need Achievement, Integrity, Emotional Stability and Self Awareness. Highest
loading is on Altruistic Behaviour. Hence this shows a personality which is
spiritually oriented having a Self Awareness which means awareness of
inner self and a strong inclination for altruism.

This orientation is found in social sciences, life sciences and total
group. Self Transcendence, Altruistic Behaviour and Persistence/Integrity
are common in both the groups (i.e. social sciences group and Total
sample). In life sciences group there is an element of boldness due to
negative loading on Harm Avoidance.

According to Allport (1967) religious orientation can be defined
within two basic categories: extrinsic and intrinsic. The extrinsic religious
orientation describes religious belief and concomitant behaviour which is
primarily a function of utilitarian motivation: Religion is expedient. The
intrinsic religious orientation describes religious belief that forms the basis
or central focus for life: it is personal and tends to determine the consistent
parameters of appropriate behaviour. Perhaps the briefest way to
characterize the two poles of subjective religion is to say that, the
extrinsically motivated person uses his religion, whereas the intrinsically
lives his religion. (Allport and Ross 1967).

Ken and Rolan (1980) found in their study that intrinsically religious
subjects ended to have a greater concern for moral standards,
conscientiousness, discipline, responsibility and consistency than those
who are extrinsically religious or non-religious. Intrinsically religious
Chapter -4 Analysis And Interpretation of Data

subjects also appeared to be more sensitive, descendent, empathetic, and to open to their emotions. In addition, they attended to reflect more constructive and traditional attitudes. Although these characteristics have positive features, they can degenerate into pathological rigidity which might lead to a neurotic style of livings such as obsessive compulsivity.

**FACTOR 4.** Variable 1- Novelty seeking (-0.781) have given the highest negative loading along with high positive loadings of variable 5- Self Directedness (0.737), variable 6- Cooperativeness (0.3624) and moderate loading on variable 4- Persistence (0.302) on factor 4. Factor -4 thus, has been named as "**Reflective and Persistent Personality**".

"**Reflective and Persistent Personality**"

This personality shows reflective nature as it has negative loading on Novelty Seeking. Other variables like Persistence, Self Directedness and Cooperativeness shows a highly motivated personality. This trait is found in Total sample, commerce and life sciences groups.

**FACTOR 5.** Variable 2- Harm Avoidance (-0.879) has given the highest negative loadings on factor 5. The second highest positive loadings on factor 5 is of variable 4- Persistence (0.622) along with moderate loadings of variable 5- Self Directedness (0.439) and variable 1- Novelty Seeking
(0.336). So, the factor-5 was identified as "Self Directed Optimistic Personality".

"Self Directed Optimistic Personality"

The factor shows strong optimistic nature as it has negative loading on Harm Avoidance and the variables Novelty Seeking, Persistence and Self Directedness implies an extravert self directed personality.

The factor is found in Total sample, male, female and arts group. Harm Avoidance is found to be negatively loaded in all these groups giving it an optimistic nature. Self directedness, Cooperativeness and Persistence makes this constellation more socially oriented. It shows that they display strong interest in being with people, and they seek social activities and gain satisfaction from others.

FACTOR 6. The highest loadings on Factor-6 is given by Variable 3- Reward Dependence (0.724) and variable 7- Self Transcendence (0.722) and with moderate loading of variable 6- Cooperativeness (0.474). Therefore, the factor-6 was named as "Self Actualization Orientation".

"Self Actualization Orientation"

As this factor has a high loading on Self Transcendence and Reward Dependence, it shows that the personality has an orientation towards being Self Actualized. The factor is found in four groups namely Total sample, commerce, male and female groups. Self Transcendence and Reward
Dependence is common in male, Total sample and social sciences groups. In male group, boldness is observed because of negative loading on Harm Avoidance. In female group, the trait is named ‘towards’ being self actualized because the person still has to strive for being more self-aware (because of negative loading on Self Awareness). But inspite of this there is a high loading on Self Transcendence and Value Orientation.

**FACTOR 7.** Variable 16- Value Orientation (0.872) has given highest loadings on factor 7 along with moderate loadings of variable 17- Commitment (0.435), variable 10- Empathy (0.301), variable 14- Integrity (0.301) and variable 19- Total Emotional intelligence (0.303) on factor 7. Hence this factor has been named as “Emotional Intelligence”.

This factor has four dimensions of Emotional Intelligence (i.e, Empathy, Integrity, Value Orientation and Commitment) with the significant loading on Total Emotional Intelligence also. Hence the factor was named Emotional Intelligent Personality.

**Eigen value**

The eigen value for a given factor reflects the total variance in all the variables which is accounted for by that factor. If a factor has a high eigen value, its contribution in the explanation of variance in the variables is also high. On the other hand, a factor with low eigen value contributes
little to the process of explanation of variance, and hence may be ignored.

The details of eigen values of the Total sample are given in Table 4.10.

Table 4.10 Eigen values for Rotated Components of Total Sample

<table>
<thead>
<tr>
<th>Factors</th>
<th>Eigen Value</th>
<th>Percentage of Variance</th>
<th>Cumulative percentage of Variance</th>
<th>Rotated sum of squared loadings cumulative percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.265</td>
<td>27.713</td>
<td>27.713</td>
<td>15.908</td>
</tr>
<tr>
<td>2</td>
<td>1.932</td>
<td>10.166</td>
<td>37.879</td>
<td>27.358</td>
</tr>
<tr>
<td>3</td>
<td>1.454</td>
<td>7.655</td>
<td>45.534</td>
<td>37.292</td>
</tr>
<tr>
<td>4</td>
<td>1.242</td>
<td>6.537</td>
<td>52.071</td>
<td>46.073</td>
</tr>
<tr>
<td>5</td>
<td>1.125</td>
<td>5.919</td>
<td>57.990</td>
<td>54.441</td>
</tr>
<tr>
<td>6</td>
<td>1.051</td>
<td>5.533</td>
<td>63.522</td>
<td>61.662</td>
</tr>
<tr>
<td>7</td>
<td>1.0008</td>
<td>5.307</td>
<td>68.829</td>
<td>68.829</td>
</tr>
</tbody>
</table>

The results in the Table 4.10 shows that:

1. Factor-1 has the highest eigen value therefore 27.713% variance in all the variables is accounted by factor-1.
2. Factor-2 is responsible for producing 10.166% variance in all the variables.
3. Factor-3 produces 7.655% variance in all the variables.
4. Factor-4 is responsible for 6.537% variance in all the variables.
5. Factor-5 accounts for 5.919% variance in all the variables.
6. Factor-6 produces 5.533% variance in all the variables.
7. Factor-7 accounts for 5.307% variance in all the variables.
Thus, 68.829% of the total variance in all the variables is accounted for by all the 7 factors showing that 31.171% variance remains unexplained which may be due to other variables not included in the present study.

**FIGURE-4.1 SCREE PLOT OF TOTAL SAMPLE**

Cattel (1966) advocated plotting a graph of each eigen value (Y-axis) against the factor with which it is associated (X-axis). This graph is known as scree plot. By graphing the eigen values, the relative importance of each factor becomes apparent. Typically there will be a few factors with quite high eigen values and many factors with relatively low eigen values, and so this graph has a very characteristic shape, there is a sharp descent in the curve followed by tailing off. The above scree plot depicts the eigen values and their components of Total sample.
Factor Analysis of Male Sample - The factor analysis for the male sample led to the emergence of 7 different factors accounting for variance in 19 variables. The detailed discussion of factor loadings, their name and their interpretation is given below. The figures within brackets indicate the factor loading of the concerned variables.

**TABLE- 4.11 UNROTATED MATRIX OF MALE SAMPLE**

<table>
<thead>
<tr>
<th>VARIABLES/COMPONENTS</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1- Novelty Seeking</td>
<td>-.045</td>
<td>-.115</td>
<td>-.160</td>
<td>.841</td>
<td>-.099</td>
<td>-.164</td>
<td>.058</td>
</tr>
<tr>
<td>T2- Harm Avoidance</td>
<td>-.194</td>
<td>-.649</td>
<td>.225</td>
<td>-.291</td>
<td>.260</td>
<td>.180</td>
<td>.054</td>
</tr>
<tr>
<td>T3- Reward Dependence</td>
<td>.197</td>
<td>.485</td>
<td>-.184</td>
<td>.145</td>
<td>.492</td>
<td>-.098</td>
<td>.359</td>
</tr>
<tr>
<td>T4- Persistence</td>
<td>.158</td>
<td>.615</td>
<td>-.098</td>
<td>.102</td>
<td>-.252</td>
<td>.155</td>
<td>-.105</td>
</tr>
<tr>
<td>C1- Self Directedness</td>
<td>.203</td>
<td>.528</td>
<td>.481</td>
<td>-.012</td>
<td>-.380</td>
<td>-.040</td>
<td>-.129</td>
</tr>
<tr>
<td>C2- Cooperativeness</td>
<td>.087</td>
<td>.403</td>
<td>.506</td>
<td>-.382</td>
<td>.166</td>
<td>-.228</td>
<td>.121</td>
</tr>
<tr>
<td>C3- Self Transcendence</td>
<td>.108</td>
<td>.569</td>
<td>-.322</td>
<td>-.069</td>
<td>.397</td>
<td>-.278</td>
<td>-.026</td>
</tr>
<tr>
<td>NA- Need Achievement</td>
<td>.686</td>
<td>-.069</td>
<td>-.116</td>
<td>-.158</td>
<td>-.142</td>
<td>.158</td>
<td>.054</td>
</tr>
<tr>
<td>E1- Self Awareness</td>
<td>.621</td>
<td>-.124</td>
<td>-.165</td>
<td>-.188</td>
<td>-.309</td>
<td>-.108</td>
<td>.071</td>
</tr>
<tr>
<td>E2- Empathy</td>
<td>.610</td>
<td>-.234</td>
<td>.181</td>
<td>.117</td>
<td>-.068</td>
<td>-.478</td>
<td>-.164</td>
</tr>
<tr>
<td>E3- Self Motivation</td>
<td>.689</td>
<td>-.160</td>
<td>-.113</td>
<td>-.043</td>
<td>.166</td>
<td>.089</td>
<td>.138</td>
</tr>
<tr>
<td>E4- Emotional Stability</td>
<td>.735</td>
<td>-.052</td>
<td>-.224</td>
<td>-.112</td>
<td>-.134</td>
<td>-.104</td>
<td>-.295</td>
</tr>
<tr>
<td>E5- Managing Relations</td>
<td>.536</td>
<td>.066</td>
<td>-.038</td>
<td>.030</td>
<td>-.194</td>
<td>.407</td>
<td>.506</td>
</tr>
<tr>
<td>E6- Integrity</td>
<td>.531</td>
<td>.095</td>
<td>-.025</td>
<td>.121</td>
<td>-.130</td>
<td>.336</td>
<td>.012</td>
</tr>
<tr>
<td>E7- Self Development</td>
<td>.604</td>
<td>-.074</td>
<td>-.125</td>
<td>-.063</td>
<td>.093</td>
<td>-.456</td>
<td>.255</td>
</tr>
<tr>
<td>E8- Value Orientation</td>
<td>.381</td>
<td>-.029</td>
<td>.418</td>
<td>.295</td>
<td>.439</td>
<td>.129</td>
<td>-.431</td>
</tr>
<tr>
<td>E9- Commitment</td>
<td>.506</td>
<td>-.155</td>
<td>.474</td>
<td>.255</td>
<td>.245</td>
<td>.156</td>
<td>.095</td>
</tr>
<tr>
<td>E10- Altruistic Behaviour</td>
<td>.356</td>
<td>.114</td>
<td>-.476</td>
<td>-.169</td>
<td>.159</td>
<td>.336</td>
<td>-.497</td>
</tr>
<tr>
<td>E11- Total Emotional Intelligance</td>
<td>.986</td>
<td>-.117</td>
<td>-.028</td>
<td>.023</td>
<td>.049</td>
<td>-.066</td>
<td>-.018</td>
</tr>
</tbody>
</table>

*Extraction Method Principal Component Analysis*

*7 Components extracted.*


Table 4.12: Rotated Matrix of Male Sample

<table>
<thead>
<tr>
<th>VARIABLES/COMPONENTS</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1- Novelty Seeking</td>
<td>.007</td>
<td>-.004</td>
<td>.042</td>
<td>.106</td>
<td>.039</td>
<td>-.189</td>
<td>-.857</td>
</tr>
<tr>
<td>T2- Harm Avoidance</td>
<td>-.134</td>
<td>.009</td>
<td>-.668</td>
<td>.172</td>
<td>-.347</td>
<td>-.082</td>
<td>.374</td>
</tr>
<tr>
<td>T3- Reward Dependence</td>
<td>-.006</td>
<td>.320</td>
<td>.042</td>
<td>.113</td>
<td>.782</td>
<td>-.016</td>
<td>-.111</td>
</tr>
<tr>
<td>T4- Persistence</td>
<td>-.007</td>
<td>.161</td>
<td>.678</td>
<td>.027</td>
<td>.126</td>
<td>.110</td>
<td>.032</td>
</tr>
<tr>
<td>C1- Self Directedness</td>
<td>.006</td>
<td>.004</td>
<td>.773</td>
<td>.147</td>
<td>-.114</td>
<td>-.115</td>
<td>.332</td>
</tr>
<tr>
<td>C2- Cooperativeness</td>
<td>.006</td>
<td>-.090</td>
<td>.378</td>
<td>.165</td>
<td>.319</td>
<td>-.337</td>
<td>.622</td>
</tr>
<tr>
<td>C3- Self Transcendence</td>
<td>.104</td>
<td>-.221</td>
<td>.175</td>
<td>-.076</td>
<td>.739</td>
<td>.167</td>
<td>.094</td>
</tr>
<tr>
<td>NA- Need Achievement</td>
<td>.483</td>
<td>.427</td>
<td>.045</td>
<td>.342</td>
<td>-.041</td>
<td>.136</td>
<td>.312</td>
</tr>
<tr>
<td>E1- Self Awareness</td>
<td>.658</td>
<td>.302</td>
<td>.076</td>
<td>-.159</td>
<td>-.119</td>
<td>.123</td>
<td>.052</td>
</tr>
<tr>
<td>E2- Empathy</td>
<td>.763</td>
<td>-.139</td>
<td>.073</td>
<td>.398</td>
<td>-.130</td>
<td>-.114</td>
<td>-.093</td>
</tr>
<tr>
<td>E3- Self Motivation</td>
<td>.573</td>
<td>.354</td>
<td>-.165</td>
<td>.189</td>
<td>.163</td>
<td>.128</td>
<td>.027</td>
</tr>
<tr>
<td>E4- Emotional Stability</td>
<td>.710</td>
<td>.101</td>
<td>.141</td>
<td>.068</td>
<td>-.039</td>
<td>.426</td>
<td>.068</td>
</tr>
<tr>
<td>E5- Managing Relations</td>
<td>.318</td>
<td>.829</td>
<td>.096</td>
<td>-.035</td>
<td>-.069</td>
<td>-.040</td>
<td>.006</td>
</tr>
<tr>
<td>E6- Integrity</td>
<td>.327</td>
<td>.492</td>
<td>.324</td>
<td>.193</td>
<td>-.014</td>
<td>.323</td>
<td>.062</td>
</tr>
<tr>
<td>E7- Self Development</td>
<td>.744</td>
<td>.070</td>
<td>-.086</td>
<td>-.175</td>
<td>.277</td>
<td>-.162</td>
<td>.018</td>
</tr>
<tr>
<td>E8- Value Orientation</td>
<td>.009</td>
<td>.050</td>
<td>.078</td>
<td>.865</td>
<td>.042</td>
<td>.176</td>
<td>-.008</td>
</tr>
<tr>
<td>E9- Commitment</td>
<td>.336</td>
<td>.342</td>
<td>-.033</td>
<td>.676</td>
<td>.377</td>
<td>-.179</td>
<td>.004</td>
</tr>
<tr>
<td>E10- Altruistic Behaviour</td>
<td>.141</td>
<td>.070</td>
<td>.015</td>
<td>.053</td>
<td>.144</td>
<td>.853</td>
<td>.005</td>
</tr>
<tr>
<td>EI- Total Emotional Intelligence</td>
<td>.813</td>
<td>.412</td>
<td>.064</td>
<td>.421</td>
<td>.049</td>
<td>.317</td>
<td>-.007</td>
</tr>
</tbody>
</table>

*Extraction Method: Principal component Analysis*

*Rotation Method: Varimax with Kaiser Normalization.*

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FACTORS DERIVED AND THEIR INTERPRETATION
OF MALE SAMPLE

The detailed discussion of factor loadings, their name and their interpretation is given below. The figures within brackets indicate the factor loading of the concerned variables.

FACTOR 1. The highest loadings on Factor 1 are given by variable 19- Total Emotional Intelligence (0.813), variable 8- Need Achievement (0.803), variable 10- Empathy (0.763), variable 15- Self Development (0.744) and variable 12- Emotional Stability (0.744), whereas, variable 9- Self Awareness (0.658), variable 11- Self Motivation (0.573), variable 17- Commitment (0.336), variable 14- Integrity (0.327) and variable 13- Managing Relations (0.318) have shown moderate loadings on this factor. The factor-1 has been named as "Emotional Intelligence with High Need Achievement".

"Emotional Intelligence with High Need Achievement".

The factor has been identified as Emotional Intelligence as it has significant loading on eight sub-dimensions of Emotional Intelligence (i.e., Empathy, Self Development, Self Awareness, Self Motivation, Emotional Stability, Managing Relations, Integrity and Commitment) along with high loading on Need Achievement. This factor was found and named in all the
groups except life sciences group. Though Need achievement was present with Emotional Intelligence variable in life sciences group, but with low loading. The sub dimensions of Emotional intelligence were found to be significantly highly correlated with Need Achievement. Though the sub-dimensions of emotional intelligence differed in the groups, the number of sub dimensions with positive and significant loading was five to nine out of ten. Self Motivation is found to be common in all. The sub dimension Managing Relations and Commitment of emotional intelligence did not emerge as a variable in total sample but it was found in rest of the groups. Altruistic Behaviour another important dimension of Emotional Intelligence was found only in female and commerce group. Value Orientation was found in female, social sciences, arts and commerce group. Male and female group differed in Value Orientation and Altruistic Behaviour. Commerce is the only group having altruistic behaviour but lacking Commitment which is present in arts and social sciences group. Art is the only group having only four sub dimensions of positive and significant loading with the Total Emotional Intelligence, namely Self Motivation, Managing Relations, Value Orientation and Commitment.

It is seen that Need achievement is a part of emotional intelligence, since high emotional intelligence have a high need achievement. Emotions and motivation are inter-linked because no motivation can exists without having an emotional base or vice versa.
FACTOR 2. Variable 13- Managing Relations (0.829) has given highest loadings on factor 2, along with moderate loadings of variable 14- Integrity (0.492), variable 8- Need achievement (0.427), variable 19- Total emotional intelligence (0.412), variable 11- Self Motivation (0.354), variable 17-Commitment (0.342) and low loading on variable 9- Self awareness (0.302) and variable 3- Reward Dependence (0.320). Therefore this factor has been identified as "Extrinsically Motivated Emotional Intelligent".

"Extrinsically Motivated Emotional Intelligent".

The second trait named as extrinsically motivated as it is socially oriented as it has variables like Reward Dependence, Need Achievement, Self Awareness, Self Motivation, Managing Relations, Integrity, Commitment and Total Emotional Intelligence. And the Self Awareness is towards the external side of self. Self motivation in this factor will also be of extrinsic type. Persistence a dimension of temperament variable emerged in Total sample, social sciences and life sciences groups but did not show significant loading in male sample. However, Integrity a dimension of Emotional Intelligence includes Persistence. Integrity as defined a perceived consistency of actions, values, methods, measures and principles.
This factor emerged in Total sample, social sciences, life sciences and male group. Need achievement is common in all the four groups. It was named extrinsically motivated because of the positive significant loading on variables like Reward Dependence, Integrity, and Persistence in Total sample and male sample. Altruistic Behaviour and Integrity have a high loading on social sciences and life sciences group. It is seen that all the sub dimensions of Emotional intelligence as a group can be called extraversion. And the Need Achievement is extrinsic type, more socially oriented.

**FACTOR 3.** Variable 5- Self directedness (0.773) and variable 4- Persistence (0.678) have given the highest loadings on factor-3 whereas variable 6- Cooperativeness (0.378) and variable 14- Integrity (0.324) have given the low loadings on factor 3. And variable 2- Harm Avoidance (-0.668) have a considerable moderate negative loading on factor 3. Hence this factor-3 has been named as *"Self Directed Optimistic Personality".*

*Self Directed Optimistic Personality*.

This personality shows optimistic nature as it has negative loading on Harm Avoidance. Other variables like Persistence, Self Directedness, Cooperativeness and Integrity shows the motivated personality is extremely persistence of extrinsic nature with highest loading on Self directedness a dimension of character variable. And this trait resembles the Factor ‘H’ of Cattell’s 16PF i.e, ‘Social Boldness’.
Chapter 4 Analysis And Interpretation of Data

The factor is found in Total sample, male, female and arts group. Harm Avoidance is found to be negatively loaded in all these groups giving it an optimistic nature. Self directedness, Cooperativeness and Persistence makes this constellation socially oriented and self directed. It shows that they display strong interest in being with people, and they seek social activities and gain satisfaction from others.

FACTOR 4. Variable 16- Value Orientation (0.865) have given the highest loading along and variable 17- Commitment (0.676), variable 19- Total Emotional Intelligence (0.421), variable 10- Empathy (0.398) and variable 8- Need Achievement (0.342) show moderate loading on factor 4. This factor has been identified as “Leadership”.

“Leadership”

This constellation of high loading on Value Orientation, Commitment, Empathy, Need Achievement and Total Emotional Intelligence shows that there is a tendency of being a leader. As a key leader includes traits like drive (Need Achievement), honesty, empathy towards others, emotional maturity/ emotional stability and is a staunch follower of principles and values.

This quality of leadership is found in male and life sciences groups only. In both the groups the constellation of high loading on Value Orientation, Commitment, Empathy, Need Achievement and Total Emotional
Intelligence shows that there is a tendency of being a leader. Cooperativeness (a sub dimension of character) is further seen in life sciences group. This can be supported by Hendrix et al. (2003) studied that in leadership capacity, character is seen as “more excellence” and (Likana 1991) character has been elsewhere seen as an essential leadership attribute.

**FACTOR 5.** Variable 2- Harm Avoidance (-0.347) has given the moderate negative loadings on factor 5. The highest positive loadings on factor 5 is by variable 3- Reward Dependence (0.782) and variable 7- Self Transcendence (0.739) along with moderate loadings by variable 17- Commitment (0.377) and variable 6- Cooperativeness (0.319). Therefore this factor has emerged out to be “*Self Actualization Orientation*”.

“*Self Actualization Orientation*”.

As this factor has a high loading on Self Transcendence and Reward Dependence, it shows that the personality has an orientation towards being self actualized. The personality is bold, spontaneous and uninhibited as it also shows negative loading on harm avoidance.

The factor is found in four groups total, commerce, male and female groups. Self Transcendence and Reward Dependence is common in male, Total sample and social sciences group. In commerce group reflectively is observed because of negative loading on Novelty Seeking only. In male group, boldness is observed because of negative loading on harm avoidance.
avoidance. In female group, the trait is named 'towards' being self actualized because the person still has to strive for being more self-aware (because of negative loading on self awareness). But inspite of this there is a high loading on Self Transcendence and Value Orientation.

**FACTOR 6.** The highest loadings on Factor-6 is given by Variable 18- Altruistic Behaviour (0.853) and with moderate loading by variable 12- Emotional stability (0.426), variable 14- Integrity (0.323), variable 19- Total Emotional Intelligence (0.317) and low negative loading by variable 6- Cooperativeness (-0.337). Thus this factor has been named as “Self Confident/Self Dependent Personality”.

“Self Confident/Self Dependent Personality”.

This factor which has emerged out has been named self confident and self dependent is uniquely expressed as individualistic personality, with a strong concern for others. It does not rely on judgments of others. They are likely for misinterpretation by society or in social relationship due to lack of expression/ interaction as there is negative loading on Cooperativeness.

This trait is uniquely expressed in male group only as individualistic personality, with a strong concern for others (high loading on Altruistic Behaviour).
FACTOR 7. Variable 1 - Novelty Seeking (-0.857) has given highest negative loadings on factor 7 along with moderate positive loadings of variable 6 - Cooperativeness (0.622), variable 2 - Harm Avoidance (0.374), variable 5 - Self Directedness (0.332) and variable 8 - Need Achievement (0.312) on factor 7. This factor has been identified as "Extrinsically Motivated, Cautious/Pessimistic and Reflective Personality".

"Extrinsically Motivated, Cautious/Pessimistic and Reflective Personality".

This personality has a constellation of being cautious/pessimistic because of positive loading on Harm Avoidance and at the same time being reflective in nature as it has a strong negative loading on Novelty Seeking. The variables like Need Achievement, Cooperativeness and Self Directedness shows a highly motivated personality. This can also mean that a person is likely to be 'conscientiousness' as described by Goldberg in social situations.
Eigen value

The details of eigen values of the male sample are given in Table 4.13.

Table 4.13

<table>
<thead>
<tr>
<th>Factors</th>
<th>Eigen Value</th>
<th>Percentage of Variance</th>
<th>Cumulative percentage of Variance</th>
<th>Rotated sum of squared loadings cumulative percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.841</td>
<td>25.478</td>
<td>25.478</td>
<td>18.561</td>
</tr>
<tr>
<td>2</td>
<td>1.986</td>
<td>10.451</td>
<td>35.929</td>
<td>28.123</td>
</tr>
<tr>
<td>3</td>
<td>1.491</td>
<td>7.845</td>
<td>43.774</td>
<td>37.356</td>
</tr>
<tr>
<td>4</td>
<td>1.264</td>
<td>6.652</td>
<td>50.425</td>
<td>46.158</td>
</tr>
<tr>
<td>5</td>
<td>1.200</td>
<td>6.314</td>
<td>56.740</td>
<td>54.191</td>
</tr>
<tr>
<td>6</td>
<td>1.140</td>
<td>5.998</td>
<td>62.738</td>
<td>61.451</td>
</tr>
<tr>
<td>7</td>
<td>1.081</td>
<td>5.687</td>
<td>68.425</td>
<td>68.425</td>
</tr>
</tbody>
</table>

The results in the Table 4.13 shows that:

1. Factor-1 has the highest eigen value therefore 25.478% variance in all the variables is accounted by factor-1.
2. Factor-2 is responsible for producing 10.451% variance in all the variables.
3. Factor-3 produces 7.845% variance in all the variables.
4. Factor-4 is responsible for 6.652% variance in all the variables.
5. Factor-5 accounts for 6.314% variance in all the variables.
6. Factor-6 produces 5.998% variance in all the variables.
7. Factor-7 accounts for 5.687% variance in all the variables.
Thus, 68.425% of the total variance in all the variables is accounted for by all the 7 factors showing that 31.575% variance remains unexplained which may be due to other variables not included in the present study.

**FIGURE- 4.2 SCREE PLOT OF MALE SAMPLE**

Cattel (1966) advocated plotting a graph of each eigen value (Y-axis) against the factor with which it is associated (X-axis). This graph is known as scree plot. By graphing the eigen values, the relative importance of each factor becomes apparent. Typically there will be a few factors with quite high eigen values and many factors with relatively low eigen values, and so this graph has a very characteristic shape, there is a sharp descent in the curve followed by tailing off. The above scree plot depicts the eigen values and their components of male sample.
Factor Analysis of Female sample

The factor analysis for the female sample led to the emergence of 6 different factors accounting for variance in 19 variables. The detailed discussion of factor loadings, their name and their interpretation is given below. The figures within brackets indicate the factor loading of the concerned variables.

<table>
<thead>
<tr>
<th>VARIABLES/COMPONENTS</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1- Novelty Seeking</td>
<td>-.021</td>
<td>-.562</td>
<td>-.234</td>
<td>.135</td>
<td>.584</td>
<td>.242</td>
</tr>
<tr>
<td>T2- Harm Avoidance</td>
<td>-.131</td>
<td>-.113</td>
<td>.799</td>
<td>.068</td>
<td>-.401</td>
<td>.025</td>
</tr>
<tr>
<td>T3- Reward Dependence</td>
<td>.139</td>
<td>.348</td>
<td>.533</td>
<td>.073</td>
<td>.260</td>
<td>.545</td>
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<tr>
<td>T4- Persistence</td>
<td>.142</td>
<td>.340</td>
<td>-.634</td>
<td>.196</td>
<td>-.068</td>
<td>-.039</td>
</tr>
<tr>
<td>C1- Self Directedness</td>
<td>.033</td>
<td>.810</td>
<td>-.214</td>
<td>-.291</td>
<td>-.106</td>
<td>-.070</td>
</tr>
<tr>
<td>C2- Cooperativeness</td>
<td>.186</td>
<td>.844</td>
<td>.104</td>
<td>.137</td>
<td>.172</td>
<td>.139</td>
</tr>
<tr>
<td>C3- Self Transcendence</td>
<td>.060</td>
<td>-.180</td>
<td>.176</td>
<td>.795</td>
<td>.192</td>
<td>-.143</td>
</tr>
<tr>
<td>NA- Need Achievement</td>
<td>.668</td>
<td>.099</td>
<td>.024</td>
<td>.215</td>
<td>.032</td>
<td>-.021</td>
</tr>
<tr>
<td>E1- Self Awareness</td>
<td>.682</td>
<td>-.188</td>
<td>-.144</td>
<td>-.161</td>
<td>-.239</td>
<td>.262</td>
</tr>
<tr>
<td>E2- Empathy</td>
<td>.703</td>
<td>.064</td>
<td>.196</td>
<td>-.214</td>
<td>.280</td>
<td>-.037</td>
</tr>
<tr>
<td>E3- Self Motivation</td>
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<td>.015</td>
<td>.128</td>
<td>-.176</td>
<td>-.211</td>
<td>.003</td>
</tr>
<tr>
<td>E4- Emotional Stability</td>
<td>.561</td>
<td>.050</td>
<td>-.018</td>
<td>.259</td>
<td>.091</td>
<td>.323</td>
</tr>
<tr>
<td>E5- Managing Relations</td>
<td>.592</td>
<td>-.084</td>
<td>-.136</td>
<td>.188</td>
<td>-.161</td>
<td>.053</td>
</tr>
<tr>
<td>E6- Integrity</td>
<td>.619</td>
<td>-.057</td>
<td>-.180</td>
<td>-.251</td>
<td>.278</td>
<td>-.348</td>
</tr>
<tr>
<td>E7- Self Development</td>
<td>.490</td>
<td>-.096</td>
<td>.191</td>
<td>.390</td>
<td>-.124</td>
<td>-.450</td>
</tr>
<tr>
<td>E8- Value Orientation</td>
<td>.656</td>
<td>-.033</td>
<td>.081</td>
<td>-.137</td>
<td>.029</td>
<td>.086</td>
</tr>
<tr>
<td>E9- Commitment</td>
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<td>.075</td>
<td>-.054</td>
<td>-.093</td>
<td>-.390</td>
<td>.235</td>
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<tr>
<td>E10- Altruistic Behaviour</td>
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<td>-.155</td>
<td>-.033</td>
<td>.153</td>
<td>.124</td>
<td>.076</td>
</tr>
<tr>
<td>EI- Total Emotional Intelligence</td>
<td>.991</td>
<td>-.065</td>
<td>.022</td>
<td>-.053</td>
<td>.043</td>
<td>-.016</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis

6 Components extracted.
### TABLE- 4.15  ROTATED MATRIX OF FEMALE SAMPLE

<table>
<thead>
<tr>
<th>VARIABLES/COMPONENTS</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1- Novelty Seeking</td>
<td>-.030</td>
<td>.031</td>
<td>-.863</td>
<td>.206</td>
<td>.026</td>
<td>-.034</td>
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<tr>
<td>T2- Harm Avoidance</td>
<td>-.001</td>
<td>-.120</td>
<td>.179</td>
<td>-.878</td>
<td>.081</td>
<td>.107</td>
</tr>
<tr>
<td>T3- Reward Dependence</td>
<td>.006</td>
<td>.072</td>
<td>.012</td>
<td>-.246</td>
<td>.848</td>
<td>.016</td>
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<tr>
<td>T4- Persistence</td>
<td>.309</td>
<td>-.151</td>
<td>.308</td>
<td>.669</td>
<td>-.069</td>
<td>.139</td>
</tr>
<tr>
<td>C1- Self Directedness</td>
<td>-.101</td>
<td>-.068</td>
<td>.729</td>
<td>.424</td>
<td>.238</td>
<td>-.147</td>
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<tr>
<td>C2- Cooperativeness</td>
<td>-.018</td>
<td>.110</td>
<td>.487</td>
<td>.383</td>
<td>.653</td>
<td>.266</td>
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<tr>
<td>C3- Self Transcendence</td>
<td>-.013</td>
<td>-.059</td>
<td>-.078</td>
<td>.014</td>
<td>.179</td>
<td>.845</td>
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<tr>
<td>NA- Need Achievement</td>
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<td>.378</td>
<td>.045</td>
<td>.094</td>
<td>.122</td>
<td>.310</td>
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<tr>
<td>E1- Self Awareness</td>
<td>.752</td>
<td>.333</td>
<td>-.036</td>
<td>.033</td>
<td>-.026</td>
<td>-.301</td>
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<tr>
<td>E2- Empathy</td>
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<td>.836</td>
<td>.089</td>
<td>-.076</td>
<td>.031</td>
<td>.085</td>
</tr>
<tr>
<td>E3- Self Motivation</td>
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<td>.668</td>
<td>-.093</td>
<td>.040</td>
<td>.233</td>
<td>-.025</td>
</tr>
<tr>
<td>E4- Emotional Stability</td>
<td>.705</td>
<td>.420</td>
<td>.113</td>
<td>-.018</td>
<td>-.018</td>
<td>-.028</td>
</tr>
<tr>
<td>E5- Managing Relations</td>
<td>.620</td>
<td>.087</td>
<td>-.202</td>
<td>.152</td>
<td>.178</td>
<td>.157</td>
</tr>
<tr>
<td>E6- Integrity</td>
<td>.586</td>
<td>.193</td>
<td>.013</td>
<td>.145</td>
<td>-.001</td>
<td>.187</td>
</tr>
<tr>
<td>E7- Self Development</td>
<td>.146</td>
<td>.813</td>
<td>-.040</td>
<td>-.059</td>
<td>-.056</td>
<td>.021</td>
</tr>
<tr>
<td>E8- Value Orientation</td>
<td>.398</td>
<td>.340</td>
<td>.117</td>
<td>-.059</td>
<td>-.376</td>
<td>.566</td>
</tr>
<tr>
<td>E9- Commitment</td>
<td>.487</td>
<td>.430</td>
<td>.063</td>
<td>.137</td>
<td>.134</td>
<td>-.061</td>
</tr>
<tr>
<td>E10- Altruistic Behaviour</td>
<td>.751</td>
<td>.018</td>
<td>.023</td>
<td>-.001</td>
<td>-.043</td>
<td>.059</td>
</tr>
<tr>
<td>EI- Total Emotional Intelligence</td>
<td>.733</td>
<td>.665</td>
<td>.024</td>
<td>.047</td>
<td>.042</td>
<td>.080</td>
</tr>
</tbody>
</table>

*Extraction Method Principal component Analysis*

*Rotation Method Varimax with Kaiser Normalization.*
FACTOR 1. The highest loadings on Factor 1 are given by Variable 19-Total Emotional intelligence (0.733), variable 9- Self Awareness (0.752), variable 12- Emotional Stability (0.705), variable 8- Need Achievement (0.720) and variable 18- Altruistic Behaviour (0.751), whereas, variable 13- Managing relations (0.620), variable 14- Integrity (0.586), variable 17- Commitment (0.487), variable 11- Self Motivation (0.386), variable 16- Value Orientation (0.398), variable 10- Empathy (0.304) and variable 4- Persistence (0.309) have shown moderate to low loadings on this factor.

The factor-1 has been named as "Emotional Intelligence with High Need Achievement".

The factor has been identified as Emotional Intelligence as it has significant loading on nine sub-dimensions of Emotional Intelligence (i.e, Empathy, Self Awareness, Self Motivation, Emotional Stability, Managing Relations, Integrity, Value Orientation, Altruistic Behaviour and Commitment) along with high loading on Need Achievement.

This factor was found and named in all the groups except life sciences group. Though Need achievement was present with Emotional Intelligence variable in life sciences group, but with low loading. The sub dimensions
of Emotional intelligence were found to be significantly highly correlated with Need Achievement. Though the sub-dimensions of Emotional Intelligence differed in the groups, the number of sub dimensions with positive and significant loading was five to nine out of ten. Self Motivation is found to be common in all. The sub dimension Managing relation and commitment of Emotional Intelligence did not emerge as a variable in Total sample but it was found in rest of the groups. Altruistic Behaviour another important dimension of emotional intelligence was found only in female and commerce group. Value Orientation was found in female, social sciences, arts and commerce group. Male and female group differed in Value Orientation and Altruistic Behaviour. Commerce is the only group having Altruistic Behaviour but lacking Commitment which is present in arts and social sciences group. Art is the only group having only four sub dimensions of positive and significant loading with the Total Emotional Intelligence namely Self Motivation, Managing Relations, Value Orientation and Commitment.

It is seen that Need achievement is a part of Emotional Intelligence, since high emotional intelligence have a high need achievement. Emotions and motivation are inter-linked because no motivation can exist without having an emotional base or vice versa.
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**FACTOR 2.** Variable 10- Empathy (0.836) and variable 15- Self Development (0.813) have given highest loadings on factor 2, along with moderate loadings of variable 11- Self Motivation (0.668), variable 19- Total Emotional Intelligence (0.665), variable 17- Commitment (0.430), variable 12- Emotional Stability (0.420), variable 8- Need Achievement (0.378), variable 16- Value Orientation (0.340) and low loading by variable 9- Self Awareness (0.333). Factor-2 has been named as "**Highly Motivated for Self development**".

"**Highly Motivated for Self development**"

This factor has been named as highly motivated for Self Development and Empathy. It lacks Managing Relations, Integrity and Altruism (other sub-dimensions of emotional intelligence). A person with this trait takes personal responsibility for one’s own learning and development through a process of assessment, reflection and taking action. This trait is found only in female group.

**FACTOR 3.** Variable 5- Self Directedness (0.729) has given the highest loadings on factor-3 whereas variable 6- Cooperativeness (0.487) and variable 4- Persistence (0.308) have given the moderate loadings on factor 3. And variable 1- Novelty seeking (-0.863) has a considerable high negative loading on factor 3. Thus this factor can be called as "**Reflective and Persistent Personality**".
"Reflective and Persistent Personality".

This personality shows reflective nature as it has negative loading on Novelty Seeking. Other variables like Persistence, Self Directedness and Cooperativeness shows a highly motivated personality. This trait is found in Total sample, commerce and life sciences groups.

**FACTOR 4.** Variable 2- Harm Avoidance (-0.878) has given a negative loading on factor 4. The highest positive loading on factor 4 is by variable 4- Persistence (0.669) with moderate loadings by variable 5- Self Directedness (0.424) and variable 6- Cooperativeness (0.383). Hence this factor-4 has been named as "Self Directed Optimistic Personality".

"Self Directed Optimistic Personality".

This personality shows optimistic nature as it has high negative loading on Harm Avoidance. Other variables like Persistence, Self Directedness and Cooperativeness shows the motivated personality is persistent. And this trait resembles the Factor ‘H’ of Cattell’s 16PF i.e, ‘Social Boldness’. The factor is found in Total sample, male, female and arts groups.

**FACTOR 5.** The highest positive loadings on factor 5 is by variable 3- Reward Dependence (0.848) with moderate loading by variable 6- Cooperativeness (0.653) and low negative loading by variable 16- Value
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Orientation (-0.376). Therefore factor 5 has been identified as "Hedonistic/ Self Centered Personality".

The personality trait is found only in female group where the individual is highly dependent on approval of others. (because of high loading on Reward Dependent and Cooperativeness) but at the same time has a negative loading on Value Orientation i.e, which shows that she cooperates for her own benefits, does not follow the principle of right or wrong set by others but has her own idea of right and wrong principles.

FACTOR 6. The highest loadings on Factor-6 is given by Variable 7- Self Transcendence (0.845) and with moderate loading by variable 16- Value Orientation (0.566), variable 8- Need Achievement (0.310) and a low negative loading by variable 9- Self Awareness (-0.301). The factor has been identified as "Towards Self Actualization".

The term "towards" is deliberately used in order to show that the person still has to strive for being more self aware (as Self Awareness has a negative loading on this factor). But inspite of this there is a high loading on Self Transcendence and Value Orientation.

The factor is found in four groups Total sample, commerce, male and female groups. Self Transcendence and Reward Dependence is common in
male, total and social sciences group. In male group, boldness is also observed because of negative loading on Harm Avoidance.

**Eigen value**

The details of eigen values of the female sample are given in Table 4.16:

**Table 4.16 Eigen values for rotated components of Female Sample**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Eigen Value</th>
<th>Percentage of Variance</th>
<th>Cumulative percentage of Variance</th>
<th>Rotated sum of squared loadings cumulative percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.690</td>
<td>29.947</td>
<td>29.947</td>
<td>19.634</td>
</tr>
<tr>
<td>2</td>
<td>2.075</td>
<td>10.923</td>
<td>40.870</td>
<td>35.586</td>
</tr>
<tr>
<td>3</td>
<td>1.642</td>
<td>8.644</td>
<td>49.514</td>
<td>44.472</td>
</tr>
<tr>
<td>4</td>
<td>1.317</td>
<td>6.932</td>
<td>56.447</td>
<td>53.289</td>
</tr>
<tr>
<td>5</td>
<td>1.170</td>
<td>6.159</td>
<td>62.605</td>
<td>60.976</td>
</tr>
<tr>
<td>6</td>
<td>1.078</td>
<td>5.675</td>
<td>68.280</td>
<td>68.280</td>
</tr>
</tbody>
</table>

The results in the Table 4.16 shows that:

1. Factor-1 has the highest eigen value therefore 29.947% variance in all the variables is accounted by factor-1.

2. Factor-2 is responsible for producing 10.923% variance in all the variables.

3. Factor-3 produces 8.644% variance in all the variables.

4. Factor-4 is responsible for 6.932% variance in all the variables.
5. Factor-5 accounts for 6.159% variance in all the variables.

6. Factor-6 produces 5.675% variance in all the variables.

Thus, 68.280% of the total variance in all the variables is accounted for by all the 6 factors showing that 31.72% variance remains unexplained which may be due to other variables not included in the present study.

**FIGURE- 4.3 SCREE PLOT OF FEMALE SAMPLE**

Cattel (1966) advocated plotting a graph of each eigen value (Y-axis) against the factor with which it is associated (X-axis). This graph is known as scree plot. By graphing the eigen values, the relative importance of each factor becomes apparent. Typically there will be a few factors with quite high eigen values and many factors with relatively low eigen values, and so this graph has a very characteristic shape, there is a sharp descent
in the curve followed by tailing off. The above scree plot depicts the eigen
dvalues and their components of female sample.

**Factor Analysis of Social Sciences Sample**

The factor analysis for the social sciences sample led to the
emergence of 5 different factors accounting for variance in 19 variables.
The detailed discussion of factor loadings, their name and their
interpretation is given below. The figures within brackets indicate the
factor loading of the concerned variables.

**TABLE- 4.17 UNROTATED MATRIX OF SOCIAL SCIENCES SAMPLE**

<table>
<thead>
<tr>
<th>VARIABLES/COMPONENTS</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1- Novelty Seeking</td>
<td>-.072</td>
<td>-.360</td>
<td>-.478</td>
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<td>.476</td>
</tr>
<tr>
<td>T2- Harm Avoidance</td>
<td>-.300</td>
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<td>.082</td>
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*Extraction Method Principal Component Analysis
5 Components extracted.*
TABLE- 4.18 ROTATED MATRIX OF SOCIAL SCIENCES SAMPLE

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<tr>
<th>VARIABLES/COMPONENTS</th>
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<th>4</th>
<th>5</th>
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</table>

Extraction Method Principal component Analysis
Rotation Method Varimax with Kaiser Normalization.
FACTORS DERIVED AND THEIR INTERPRETATION
OF SOCIAL SCIENCES SAMPLE

FACTOR 1. The highest loadings on Factor 1 are given by Variable 10-Empathy (0.866), and variable 19- Total Emotional Intelligence (0.843) whereas, variable 11- Self Motivation (0.637), variable 12- Emotional Stability (0.603), variable 15- Self Development (0.690), variable 17-Commitment (0.685), variable 16- Value Orientation (0.432), variable 8-Need Achievement (0.409), variable 9- Self Awareness (0.566), variable 14- Integrity (0.385) and variable 13- Managing Relations (0.315) have shown moderate to low loadings on this factor. The factor is thus named as "Emotional Intelligence with High Need Achievement".

"Emotional Intelligence with High Need Achievement".

The factor has been identified as Emotional Intelligence as it has significant loading on nine sub-dimensions of Emotional Intelligence (i.e, Empathy, Self Awareness, Self Development, Self Motivation, Emotional Stability, Managing Relations, Integrity, Value Orientation, and Commitment) along with high loading on Need Achievement.

This factor was found and named in all the groups except life sciences group. Though Need achievement was present with Emotional Intelligence variable in life sciences group, but with low loading. The sub
dimensions of Emotional intelligence were found to be significantly highly
related with Need Achievement. Though the sub-dimensions of
Emotional Intelligence differed in the groups, the number of sub
dimensions with positive and significant loading was five to nine out of
ten. Self Motivation is found to be common in all. The sub dimension
Managing Relations and Commitment of Emotional Intelligence did not
emerge as a variable in Total sample but it was found in rest of the groups.
Altruistic Behaviour another important dimension of emotional intelligence
was found only in female and commerce group. Value Orientation was
found in female, social sciences, arts and commerce group. Male and
female group differed in Value Orientation and Altruistic Behaviour.
Commerce is the only group having Altruistic Behaviour but lacking
Commitment which is present in arts and social sciences group. Art is the
only group having only four sub dimensions of positive and significant
loading with the Total Emotional Intelligence, namely Self Motivation,
Managing Relations, Value Orientation and Commitment.

It is seen that Need achievement is a part of Emotional Intelligence,
since high emotional intelligence have a high need achievement. Emotions
and motivation are inter-linked because no motivation can exist without
having an emotional base or vice versa.
FACTOR 2. Variable 5- Self Directedness (0.870) and variable 6-Cooperativeness (0.829) has given highest loadings on factor 2, along with moderate loadings of variable 3- Reward Dependence (0.626) and variable 4- Persistence (0.436) and negative low loading by variable 1- Novelty Seeking (-0.373) and moderate negative loading by variable 2- Harm Avoidance (-0.666). Therefore the factor-2 is identified as "Self Directed, Reflective and Optimistic Personality".

"Self Directed, Reflective and Optimistic Personality".

This personality has a high loading on Self Directedness and Cooperativeness- sub dimensions of character variable. It shows that they display a strong interest in being with people, and they seek social activities and gain satisfaction from others. The reflective and optimistic nature is so named because of the negative loading found on Novelty Seeking and Harm Avoidance, both being the dimensions of temperament variable. This personality is also said to be healthy personality. This trait is found only in social sciences group.

FACTOR 3. Variable 13- Managing Relations (0.765) and variable 18-Altruistic Behaviour (0.743) have given the highest loadings on factor-3 whereas variable 8- Need Achievement (0.540), variable 11- Self Motivation (0.411), variable 12- Emotional Stability(0.494), variable 19-Total Emotional Intelligence (0.499) and variable 4- Persistence (0.483)
have given the moderate loadings on factor 3. And variable 14- Integrity (0.368) has a considerable low loading on factor 3. Hence this factor has been named as "Extrinsically Motivated Emotional Intelligent".

This factor shows a high loading on Altruistic Behaviour. Other factors like Self Motivation, Emotional Stability, Managing Relations, Integrity are the sub-dimensions of emotional intelligence and as it is seen that all the sub-dimensions of EI as a group can be called Extraversion. And the need achievement present if of extrinsic type, more socially oriented.

This factor emerged in Total sample, social sciences, life sciences and male groups. Need achievement is common in all the four groups. It was named extrinsically motivated because of the positive significant loading on variables like Reward Dependence, Integrity and Persistence in total sample, social sciences and life sciences groups. Persistence did not show significant loading on male group. Altruistic behaviour and Integrity have a high loading on social sciences and life sciences group. It is seen that all the sub dimensions of emotional intelligence as a group can be called extraversion. And the need achievement is extrinsic type, more socially oriented.

**FACTOR 4.** Variable 7- Self Transcendence (0.876) have given the highest loading along and variable 14- Integrity (0.532), variable 16- Value
Orientation (0.486) and variable 8- Need Achievement (0.318) shows moderate loading on factor 4. The factor-4 therefore has been identified as “Religious Orientation”.

This factor has a highest loading on Self Transcendence. Therefore this factor ‘Religious Orientation’ resembles Omnibus personality traits where a person has aesthetic sensitivity, pursue spiritual values are self neglecting and have a strong value orientation and imagination.

This orientation is found in social sciences, life sciences and total group. Self Transcendence, Altruistic Behaviour and Persistence/Integrity are common in Total sample and social sciences group. In life sciences group there is an element of boldness due to negative loading on Harm Avoidance.

According to Allport (1967) religious orientation can be defined within two basic categories: extrinsic and intrinsic. The extrinsic religious orientation describes religious belief and concomitant behaviour which is primarily a function of utilitarian motivation: Religion is expedient. The intrinsic religious orientation describes religious belief that forms the basis or central focus for life: it is personal and tends to determine the consistent parameters of appropriate behaviour. Perhaps the briefest way to characterize the two poles of subjective religion is to say that, the
extrinsically motivated person uses his religion, where as the intrinsically lives his religion. (Allport and Ross 1967).

Ken and Rolan (1980) found in their study that intrinsically religious subjects ended to have a greater concern for moral standards, conscientiousness, discipline, responsibility and consistency than those who are extrinsically religious or non-religious. Intrinsically religious subjects also appeared to be more sensitive, descendent, empathetic, and to open to their emotions. In addition, they attended to reflect more constructive and traditional attitudes. Although these characteristics have positive features, they can degenerate into pathological rigidity which might lead to a neurotic style of livings such as obsessive compulsivity.

**FACTOR 5.** Variable 1- Novelty Seeking (0.756) has given the highest positive loadings on factor 5. The moderate positive loadings on factor 5 is by variable 3- Reward Dependence (0.538) and variable 15- Self Development (0.357) along with moderate negative loadings by variable 4- Persistence (-0.346), variable 16- Value Orientation (-0.345) and variable 17- Commitment (-0.392). The factor is thus named as “Materialistic and Self Centered Personality”.

“This factor has been named ‘Materialistic and Self Centered Personality’ because it has negative loading on Commitment and Value
Orientation. It has a strong positive loading on Novelty Seeking, Reward Dependence and Self Development. This shows that a person is self centered, is dependent on approval of others with impulsive nature making his approach materialistic. It resembles the Factor ‘G’ of low range description of Cattell’s 16PF, i.e, Expedient, nonconforming, disregards rules and self indulgent. (lower super ego strength). This trait is uniquely emerged in social sciences group only.

Eigen value

The details of eigen values of the social sciences sample are given in Table 4.19.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Eigen Value</th>
<th>Percentage of Variance</th>
<th>Cumulative percentage of Variance</th>
<th>Rotated sum of squared loadings cumulative percentage</th>
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<tbody>
<tr>
<td>1</td>
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<td>31.076</td>
<td>21.704</td>
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<td>44.728</td>
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<tr>
<td>3</td>
<td>1.455</td>
<td>7.660</td>
<td>52.387</td>
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<td>4</td>
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<td>58.697</td>
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<tr>
<td>5</td>
<td>1.197</td>
<td>6.301</td>
<td>65.860</td>
<td>65.860</td>
</tr>
</tbody>
</table>

The results in the Table 4.19 shows that:

1. Factor-1 has the highest eigen value therefore 31.076% variance in all the variables is accounted by factor-1.
2. Factor-2 is responsible for producing 13.651% variance in all the variables.

3. Factor-3 produces 7.660% variance in all the variables.

4. Factor-4 is responsible for 7.172% variance in all the variables.

5. Factor-5 accounts for 6.301% variance in all the variables.

Thus, 65.860% of the total variance in all the variables is accounted for by all the 5 factors showing that 34.14% variance remains unexplained which may be due to other variables not included in the present study.

**FIGURE- 4.4 SCREE PLOT OF SOCIAL SCIENCES SAMPLE**

Cattel (1966) advocated plotting a graph of each eigen value (Y-axis) against the factor with which it is associated (X-axis). This graph is known as **scree plot**. By graphing the eigen values, the relative importance of each factor becomes apparent. Typically there will be a few factors with quite high eigen values and many factors with relatively low eigen values, and so this graph has a very characteristic shape, there is a sharp descent
in the curve followed by tailing off. The above scree plot depicts the eigen values and their components of social sciences sample.

**Factor Analysis of Life Sciences Sample**

The factor analysis for the life sciences sample led to the emergence of 6 different factors accounting for variance in 19 variables. The detailed discussion of factor loadings, their name and their interpretation is given below. The figures within brackets indicate the factor loading of the concerned variables.

**TABLE- 4.20 UNROTATED MATRIX OF LIFE SCIENCES SAMPLE**

<table>
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<tr>
<th>VARIABLES/COMPONENTS</th>
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<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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*Extraction Method Principal Component Analysis
6 Components extracted.*
TABLE- 4.21  ROTATED MATRIX OF LIFE SCIENCES SAMPLE

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<tr>
<td>E5- Managing Relations</td>
<td>.523</td>
<td>.434</td>
<td>.054</td>
<td>-.035</td>
<td>.034</td>
<td>-.222</td>
</tr>
<tr>
<td>E6- Integrity</td>
<td>.694</td>
<td>-.064</td>
<td>.061</td>
<td>.194</td>
<td>-.073</td>
<td>-.147</td>
</tr>
<tr>
<td>E7- Self Development</td>
<td>-.047</td>
<td>.868</td>
<td>.037</td>
<td>-.014</td>
<td>.025</td>
<td>.129</td>
</tr>
<tr>
<td>E8- Value Orientation</td>
<td>.149</td>
<td>-.038</td>
<td>.072</td>
<td>.758</td>
<td>.104</td>
<td>-.084</td>
</tr>
<tr>
<td>E9- Commitment</td>
<td>.571</td>
<td>.376</td>
<td>-.082</td>
<td>.454</td>
<td>.085</td>
<td>.093</td>
</tr>
<tr>
<td>E10- Altruistic Behaviour</td>
<td>.604</td>
<td>-.054</td>
<td>.376</td>
<td>-.096</td>
<td>.116</td>
<td>.355</td>
</tr>
<tr>
<td>E1- Total Emotional Intelligence</td>
<td>.680</td>
<td>.674</td>
<td>-.010</td>
<td>.364</td>
<td>.024</td>
<td>.032</td>
</tr>
</tbody>
</table>

Extraction Method Principal component Analysis
Rotation Method Varimax with Kaiser Normalization.
FACTORS DERIVED AND THEIR INTERPRETATION

OF LIFE SCIENCES SAMPLE

FACTOR 1. The highest loadings on Factor 1 are given by Variable 9 - Self Awareness (0.711), variable 14 - Integrity (0.694), variable 19 - Total Emotional intelligence (0.680) and variable 12 - Emotional Stability (0.610), whereas, variable 18 - Altruistic Behaviour (0.604), variable 17 - Commitment (0.571), variable 13 - Managing Relations (0.523), variable 8 - Need Achievement (0.420) and variable 11 - Self Motivation (0.368) have shown moderate loadings on this factor. Hence the factor-1 has been named as "Extrinsically Motivated Emotional Intelligent".

"Extrinsically Motivated Emotional Intelligent".

This factor contains six dimensions of Emotional Intelligence (i.e, Self Awareness, Self Motivation, Managing Relations, Integrity, Commitment and Altruistic Behaviour). And this factor also has loading on Need Achievement, where the need is of both extrinsic and intrinsic type. The personality is emotional intelligent with understanding of feelings of oneself and other as it has strong loading on Self Awareness.

This factor emerged in Total sample, social sciences, life sciences and male groups. Need Achievement is common in all the four groups. It was named extrinsically motivated because of the positive significant loading on
variables like Reward Dependence, Integrity, Persistence in Total sample, social sciences and life sciences groups. Persistence did not show a significant loading in male sample. Altruistic behaviour, integrity have a high loading on social sciences and life sciences groups. It is seen that most of the sub dimensions of Emotional Intelligence as a group can be called extraversion. And the Need Achievement is extrinsic type, more socially oriented.

**FACTOR 2.** Variable 15- Self Development (0.868) and variable 10- Empathy (0.752) have given highest loadings on factor 2, along with moderate loadings of variable 19- Total Emotional Intelligence (0.674), variable 11- Self Motivation (0.640), variable 12- Emotional Stability (0.523), variable 13- Managing Relations (0.434), variable 8- Need Achievement (0.349) and low loading by variable 9- Self Awareness (0.328) and variable 17- Commitment (0.376). This factor has been identified as "*Emotional Intelligence directed towards being Self Centered*."

"*Emotional Intelligence directed towards being Self Centered*.

The factor has been so named because it has strong loading on most of the sub-dimensions of Emotional Intelligence (i.e., Self Awareness, Empathy, Self Motivation, Emotional Stability, Managing Relations, Self Development, Commitment and the Total Emotional Intelligence). The highest loading is on Self Development and Empathy where the personality
is being self centered, even the empathy does not necessarily imply compassion, or empathic concern because this capacity can also be present in context of compassionate or selfish behaviour.

**FACTOR 3.** Variable 4- Persistence (0.737) has given the highest loadings on factor-3 whereas variable 7-Self Transcendence (0.686) and variable 18- Altruistic Behaviour (0.376) has given the moderate loadings on factor 3. And variable 2- Harm Avoidance (-0.629) has a considerable moderate negative loading on factor 3. The factor-3 thus has been named as "**Spiritually Oriented Personality**".

This factor has been named spiritually oriented but of a bold type because of the negative loading shown on Harm Avoidance. Strong positive loading is found on Self Transcendence, Persistence and Altruistic Behaviour. Hence making the personality persistence, bold and spiritually oriented.

This orientation is found in social sciences, life sciences and total group. Self Transcendence, Altruistic Behaviour and Persistence/Integrity are common in both the groups (i.e. social sciences group and Total sample). In life sciences group there is an element of boldness due to negative loading on Harm Avoidance.
According to Allport (1967) religious orientation can be defined within two basic categories: extrinsic and intrinsic. The extrinsic religious orientation describes religious belief and concomitant behaviour which is primarily a function of utilitarian motivation: Religion is expedient. The intrinsic religious orientation describes religious belief that forms the basis or central focus for life: it is personal and tends to determine the consistent parameters of appropriate behaviour. Perhaps the briefest way to characterize the two poles of subjective religion is to say that, the extrinsically motivated person uses his religion, where as the intrinsically lives his religion. (Allport and Ross 1967).

Ken and Rolan (1980) found in their study that intrinsically religious subjects ended to have a greater concern for moral standards, conscientiousness, discipline, responsibility and consistency than those who are extrinsically religious or non-religious. Intrinsically religious subjects also appeared to be more sensitive, descendent, empathetic, and to open to their emotions. In addition, they attended to reflect more constructive and traditional attitudes. Although these characteristics have positive features, they can degenerate into pathological rigidity which might lead to a neurotic style of living such as obsessive compulsivity.

**FACTOR 4.** The highest positive loadings on factor 4 is by variable 16- Value Orientation (0.758) and variable 6- Cooperativeness (0.649) with
moderate loadings by variable 17- Commitment (0.454), variable 8- Need achievement (0.373), variable 10- Empathy (0.386) and variable 19- Total Emotional Intelligence (0.364). The factor-4 has been identified as "Leadership".

"Leadership"

This constellation of high loading on Value Orientation, Commitment, Empathy, Need Achievement and Total Emotional Intelligence shows that there is a tendency of being a leader. As a key leader includes traits like drive (Need Achievement), honesty, empathy towards others, emotional maturity/ emotional stability and is a staunch follower of principles and values.

This quality of leadership is found in male and life sciences group only. In both the groups the constellation of high loading on Value Orientation, Commitment, Empathy, Need Achievement and Total Emotional Intelligence shows that there is a tendency of being a leader. Cooperativeness (a sub dimension of character) is further seen in life sciences group. This can be supported by Hendrix et al. (2003) studied that in leadership capacity, character is seen as “more excellence” and (Likana 1991) character has been elsewhere seen as an essential leadership attribute.

**FACTOR 5.** The highest positive loadings on factor 5 is by variable 3- Reward Dependence (0.675) and variable 2- Harm Avoidance (0.546) and
negative loading by variable 5- Self Directedness (-0.771). The factor has been name as “Timid and Suggestible personality”.

“Timid and Suggestible Personality”.

This personality displays a person as having poor impulse control, irresponsible and aimless because of the strong negative loading on Self Directedness - a dimension of character. However at the same time the personality displays a pessimistic, worrying person dependent on the approval of others because of positive loading found on Harm Avoidance. The factor also resembles the low description of Factor ‘H’ (Social Boldness) of Cattell’s 16PF.

**FACTOR 6.** The moderate loadings on Factor-6 is given by Variable 18- Altruistic Behaviour (0.355), variable 7- Self Transcendence (0.325), variable 5- Self Directedness (0.330), variable 6- Cooperativeness (0.314) and high negative loading by variable 1- Novelty Seeking (-0.841). The factor has been named as “Spiritually Oriented Personality”.

“Spiritually Oriented Personality”.

This personality shows reflective nature as it has negative loading on Novelty Seeking and other variables like Self Transcendence, Self Directedness, Cooperativeness and Altruistic Behaviour shows the motivated personality which is socially oriented and highly reflective and aesthetically sensitive.
This orientation is found in social sciences, life sciences and total group. Self Transcendence, Altruistic Behaviour and Persistence/Integrity are common in all the groups.

According to Allport (1967) religious orientation can be defined within two basic categories: extrinsic and intrinsic. The extrinsic religious orientation describes religious belief and concomitant behaviour which is primarily a function of utilitarian motivation: Religion is expedient. The intrinsic religious orientation describes religious belief that forms the basis or central focus for life: it is personal and tends to determine the consistent parameters of appropriate behaviour. Perhaps the briefest way to characterize the two poles of subjective religion is to say that, the extrinsically motivated person uses his religion, where as the intrinsically lives his religion. (Allport and Ross 1967).

Ken and Rolan (1980) found in their study that intrinsically religious subjects ended to have a greater concern for moral standards, conscientiousness, discipline, responsibility and consistency than those who are extrinsically religious or non-religious. Intrinsically religious subjects also appeared to be more sensitive, descendent, empathetic, and to open to their emotions. In addition, they attended to reflect more constructive and traditional attitudes. Although these characteristics have positive features, they can degenerate into pathological rigidity which might lead to a neurotic style of livings such as obsessive compulsivity.
Eigen value

The details of eigen values of the life sciences sample are given in Table 4.22.

**Table 4.22 Eigen values for rotated components of Life Sciences**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Eigen Value</th>
<th>Percentage of Variance</th>
<th>Cumulative percentage of Variance</th>
<th>Rotated sum of squared loadings cumulative percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.114</td>
<td>26.915</td>
<td>26.915</td>
<td>16.969</td>
</tr>
<tr>
<td>2</td>
<td>1.937</td>
<td>10.197</td>
<td>37.112</td>
<td>32.566</td>
</tr>
<tr>
<td>3</td>
<td>1.611</td>
<td>8.481</td>
<td>45.594</td>
<td>41.742</td>
</tr>
<tr>
<td>4</td>
<td>1.468</td>
<td>7.729</td>
<td>53.322</td>
<td>50.481</td>
</tr>
<tr>
<td>5</td>
<td>1.204</td>
<td>6.338</td>
<td>59.661</td>
<td>58.216</td>
</tr>
<tr>
<td>6</td>
<td>1.141</td>
<td>6.005</td>
<td>65.666</td>
<td>65.666</td>
</tr>
</tbody>
</table>

The results in the Table 4.22 shows that:

1. Factor-1 has the highest eigen value therefore 26.915% variance in all the variables is accounted by factor-1.
2. Factor-2 is responsible for producing 10.197% variance in all the variables.
3. Factor-3 produces 8.481% variance in all the variables.
4. Factor-4 is responsible for 7.729% variance in all the variables.
5. Factor-5 accounts for 6.338% variance in all the variables.
6. Factor-6 produces 6.005% variance in all the variables.
Thus, 65.666% of the total variance in all the variables is accounted for by all the 6 factors showing that 34.334% variance remains unexplained which may be due to other variables not included in the present study.

**FIGURE- 4.5 SCREE PLOT OF LIFE SCIENCES SAMPLE**

Cattel (1966) advocated plotting a graph of each eigen value (Y-axis) against the factor with which it is associated (X-axis). This graph is known as scree plot. By graphing the eigen values, the relative importance of each factor becomes apparent. Typically there will be a few factors with quite high eigen values and many factors with relatively low eigen values, and so this graph has a very characteristic shape, there is a sharp descent in the curve followed by tailing off. The above scree plot depicts the eigen values and their components of life sciences sample.
Factor Analysis of Commerce Sample

The factor analysis for the commerce sample led to the emergence of 6 different factors accounting for variance in 19 variables. The detailed discussion of factor loadings, their name and their interpretation is given below. The figures within brackets indicate the factor loading of the concerned variables.

<table>
<thead>
<tr>
<th>VARIABLES/COMPONENTS</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1- Novelty Seeking</td>
<td>.060</td>
<td>-.495</td>
<td>.529</td>
<td>.559</td>
<td>.145</td>
<td>-.050</td>
</tr>
<tr>
<td>T2- Harm Avoidance</td>
<td>-.124</td>
<td>-.043</td>
<td>-.841</td>
<td>-.159</td>
<td>.223</td>
<td>-.054</td>
</tr>
<tr>
<td>T3- Reward Dependence</td>
<td>.016</td>
<td>.580</td>
<td>-.330</td>
<td>.337</td>
<td>-.384</td>
<td>.144</td>
</tr>
<tr>
<td>T4- Persistence</td>
<td>.085</td>
<td>.332</td>
<td>.638</td>
<td>-.348</td>
<td>-.022</td>
<td>.244</td>
</tr>
<tr>
<td>C1- Self Directedness</td>
<td>.016</td>
<td>.718</td>
<td>.151</td>
<td>-.252</td>
<td>.483</td>
<td>-.018</td>
</tr>
<tr>
<td>C2- Cooperativeness</td>
<td>-.034</td>
<td>.860</td>
<td>.136</td>
<td>.012</td>
<td>-.028</td>
<td>.202</td>
</tr>
<tr>
<td>C3- Self Transcendence</td>
<td>.040</td>
<td>.513</td>
<td>.018</td>
<td>.348</td>
<td>-.521</td>
<td>-.258</td>
</tr>
<tr>
<td>NA- Need Achievement</td>
<td>.770</td>
<td>.132</td>
<td>.117</td>
<td>-.034</td>
<td>-.029</td>
<td>.158</td>
</tr>
<tr>
<td>E1- Self Awareness</td>
<td>.695</td>
<td>-.123</td>
<td>-.072</td>
<td>-.315</td>
<td>-.183</td>
<td>-.045</td>
</tr>
<tr>
<td>E2- Empathy</td>
<td>.718</td>
<td>.043</td>
<td>-.028</td>
<td>-.148</td>
<td>.246</td>
<td>.094</td>
</tr>
<tr>
<td>E3- Self Motivation</td>
<td>.723</td>
<td>.019</td>
<td>-.171</td>
<td>.079</td>
<td>.203</td>
<td>-.036</td>
</tr>
<tr>
<td>E4- Emotional Stability</td>
<td>.780</td>
<td>.027</td>
<td>.122</td>
<td>-.271</td>
<td>-.044</td>
<td>-.327</td>
</tr>
<tr>
<td>E5- Managing Relations</td>
<td>.532</td>
<td>-.160</td>
<td>-.098</td>
<td>.117</td>
<td>-.240</td>
<td>.597</td>
</tr>
<tr>
<td>E6- Integrity</td>
<td>.650</td>
<td>-.183</td>
<td>-.077</td>
<td>.139</td>
<td>-.118</td>
<td>-.069</td>
</tr>
<tr>
<td>E7- Self Development</td>
<td>.635</td>
<td>.014</td>
<td>.094</td>
<td>-.053</td>
<td>-.067</td>
<td>.286</td>
</tr>
<tr>
<td>E8- Value Orientation</td>
<td>.335</td>
<td>.368</td>
<td>.137</td>
<td>.505</td>
<td>.357</td>
<td>-.287</td>
</tr>
<tr>
<td>E9- Commitment</td>
<td>.391</td>
<td>.060</td>
<td>-.157</td>
<td>.537</td>
<td>.338</td>
<td>.156</td>
</tr>
<tr>
<td>E10- Altruistic Behaviour</td>
<td>.569</td>
<td>.022</td>
<td>-.023</td>
<td>-.023</td>
<td>-.290</td>
<td>-.562</td>
</tr>
<tr>
<td>EI- Total Emotional Intelligence</td>
<td>.995</td>
<td>-.014</td>
<td>.010</td>
<td>.017</td>
<td>.018</td>
<td>-.119</td>
</tr>
</tbody>
</table>

Extraction Method Principal Component Analysis

6 Components extracted.
**TABLE - 4.24 ROTATED MATRIX OF COMMERCE SAMPLE**

<table>
<thead>
<tr>
<th>VARIABLES/COMPONENTS</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1- Novelty Seeking</td>
<td>-0.105</td>
<td>-0.380</td>
<td>-0.246</td>
<td>0.423</td>
<td>0.682</td>
<td>0.036</td>
</tr>
<tr>
<td>T2- Harm Avoidance</td>
<td>-0.066</td>
<td>-0.090</td>
<td>-0.054</td>
<td>0.048</td>
<td>-0.884</td>
<td>-0.055</td>
</tr>
<tr>
<td>T3- Reward Dependence</td>
<td>-0.055</td>
<td>0.120</td>
<td>0.765</td>
<td>0.124</td>
<td>-0.237</td>
<td>0.228</td>
</tr>
<tr>
<td>T4- Persistence</td>
<td>-0.094</td>
<td>0.620</td>
<td>-0.054</td>
<td>-0.269</td>
<td>0.470</td>
<td>0.121</td>
</tr>
<tr>
<td>C1- Self Directedness</td>
<td>-0.025</td>
<td>0.864</td>
<td>-0.015</td>
<td>0.176</td>
<td>-0.125</td>
<td>-0.207</td>
</tr>
<tr>
<td>C2- Cooperativeness</td>
<td>-0.085</td>
<td>0.735</td>
<td>0.488</td>
<td>0.073</td>
<td>0.022</td>
<td>0.099</td>
</tr>
<tr>
<td>C3- Self Transcendence</td>
<td>-0.177</td>
<td>0.031</td>
<td>0.824</td>
<td>0.018</td>
<td>0.124</td>
<td>-0.167</td>
</tr>
<tr>
<td>NA- Need Achievement</td>
<td>0.701</td>
<td>0.107</td>
<td>0.081</td>
<td>0.168</td>
<td>-0.078</td>
<td>0.327</td>
</tr>
<tr>
<td>E1- Self Awareness</td>
<td>0.758</td>
<td>-0.053</td>
<td>-0.069</td>
<td>-0.186</td>
<td>0.018</td>
<td>0.127</td>
</tr>
<tr>
<td>E2- Empathy</td>
<td>0.688</td>
<td>0.170</td>
<td>-0.191</td>
<td>0.219</td>
<td>-0.068</td>
<td>0.095</td>
</tr>
<tr>
<td>E3- Self Motivation</td>
<td>0.651</td>
<td>0.031</td>
<td>-0.061</td>
<td>0.376</td>
<td>-0.133</td>
<td>0.120</td>
</tr>
<tr>
<td>E4- Emotional Stability</td>
<td>0.872</td>
<td>0.075</td>
<td>-0.035</td>
<td>-0.030</td>
<td>0.105</td>
<td>-0.164</td>
</tr>
<tr>
<td>E5- Managing Relations</td>
<td>0.361</td>
<td>-0.125</td>
<td>0.033</td>
<td>0.040</td>
<td>0.129</td>
<td>0.755</td>
</tr>
<tr>
<td>E6- Integrity</td>
<td>0.576</td>
<td>-0.242</td>
<td>0.029</td>
<td>0.178</td>
<td>0.058</td>
<td>0.268</td>
</tr>
<tr>
<td>E7- Self Development</td>
<td>0.551</td>
<td>0.074</td>
<td>0.073</td>
<td>0.068</td>
<td>0.050</td>
<td>0.419</td>
</tr>
<tr>
<td>E8- Value Orientation</td>
<td>0.313</td>
<td>0.209</td>
<td>0.302</td>
<td>0.720</td>
<td>0.148</td>
<td>-0.241</td>
</tr>
<tr>
<td>E9- Commitment</td>
<td>0.171</td>
<td>-0.040</td>
<td>0.202</td>
<td>0.715</td>
<td>-0.063</td>
<td>0.247</td>
</tr>
<tr>
<td>E10- Altruistic Behaviour</td>
<td>0.691</td>
<td>-0.171</td>
<td>0.361</td>
<td>-0.029</td>
<td>0.165</td>
<td>-0.358</td>
</tr>
<tr>
<td>E11- Total Emotional Intelligence</td>
<td>0.933</td>
<td>-0.012</td>
<td>-0.082</td>
<td>0.268</td>
<td>0.049</td>
<td>0.212</td>
</tr>
</tbody>
</table>

*Extraction Method Principal component Analysis*

*Rotation Method Varimax with Kaiser Normalization.*
FACTORS DERIVED AND THEIR INTERPRETATION

OF COMMERCE SAMPLE

FACTOR 1. The highest loadings on Factor 1 are given by Variable 19- Total Emotional Intelligence (0.933), variable 12- Emotional Stability (0.872), variable 9- Self Awareness (0.758) and variable 8- Need Achievement (0.701), whereas, variable 18- Altruistic Behaviour (0.691), variable 10- Empathy (0.688), variable 11- Self Motivation (0.651), variable 14- Integrity (0.576), variable 15- Self Development (0.551) and variable 13- Managing Relations (0.361) have shown moderate loadings on this factor with variable 16- Value Orientation (0.313) showing low loading on factor-1. The factor has been named as "Emotional Intelligence with High Need Achievement".

"Emotional Intelligence with High Need Achievement".

The factor has been identified as Emotional Intelligence as it has significant loading on nine sub-dimensions of Emotional Intelligence (i.e, Empathy, Self Awareness, Self Motivation, Emotional Stability, Managing Relations, Integrity, Value Orientation, Altruistic Behaviour and Self Development) along with high loading on Total Emotional Intelligence and Need Achievement.

This factor was found and named in all the groups except life sciences group. Though Need Achievement was present with Emotional
Intelligence variable in life sciences group, but with low loading. The sub dimensions of Emotional intelligence were found to be significantly highly correlated with need achievement. Though the sub-dimensions of emotional intelligence differed in the groups, the number of sub dimensions with positive and significant loading was five to nine out of ten. Self Motivation is found to be common in all. The sub dimension Managing Relations and Commitment of Emotional Intelligence did not emerge as a variable in total sample but it was found in rest of the groups. Altruistic Behaviour another important dimension of emotional intelligence was found only in female and commerce group. Value Orientation was found in female, social sciences, arts and commerce group. Male and female group differed in Value Orientation and Altruistic Behaviour. Commerce is the only group having Altruistic Behaviour but lacking commitment which is present in arts and social sciences group. Art is the only group having only four sub dimensions of positive and significant loading with the Total Emotional Intelligence, namely Self Motivation, Managing Relations, Value Orientation and Commitment.

It is seen that Need achievement is a part of Emotional Intelligence, since high emotional intelligence have a high need achievement. Emotions and motivation are inter-linked because no motivation can exist without having an emotional base or vice versa.
FACTOR 2. Variable 5- Self Directedness (0.864) and variable 6- Cooperativeness (0.735) have given highest loadings on factor 2, along with moderate loadings of variable 4- Persistence (0.620) and negative loading by variable 1- Novelty Seeking (-0.380). The factor thus has been identified as "Reflective and Persistent Personality".

"Reflective and Persistent Personality".

This personality shows reflective nature as it has negative loading on Novelty Seeking. Other variables like Persistence, Self Directedness and Cooperativeness shows a highly motivated personality. This trait is found in Total sample, commerce and life sciences groups.

FACTOR 3. Variable 7- Self Transcendence (0.824) has given the highest loadings on factor-3 whereas variable 3- Reward Dependence (0.765) and variable 6- Cooperativeness (0.488) has given the moderate loadings on factor 3. And variable 16- Value Orientation (0.302) and variable 18- Altruistic Behaviour (0.361) have a low loading on factor-3. Therefore the factor has been named as "Self Actualization Orientation".

"Self Actualization Orientation".

As this factor has a high loading on Self Transcendence and Reward Dependence, it shows that the personality has an orientation towards being
self actualized. But it is not so self neglecting as it has significant loading on Cooperativeness and Altruistic Behaviour.

The factor is found in four groups, namely Total sample, commerce, male and female groups. Self Transcendence and Reward Dependence is common in male, total and social sciences group. In male group, boldness is observed because of negative loading on Harm Avoidance. In female group, the trait is named ‘towards’ being self actualized because the person still has to strive for being more self-aware (because of negative loading on self awareness). But inspite of this there is a high loading on Self Transcendence and Value Orientation.

**FACTOR 4.** The highest positive loadings on factor 4 is by variable 16-Value Orientation (0.720) and variable 17- Commitment (0.715) with moderate loadings by variable 1- Novelty seeking (0.423) and variable 11- Self Motivation (0.376). The factor has been named as “**Lively and Conscientious Personality**”.

“**Lively and Conscientious Personality**”.

The person is enthusiastic and impulsive because of positive loading on Novelty Seeking. Moreover a significant loading on Commitment, Value Orientation and Self Motivation makes a person conscientious towards others. This trait resembles factor ‘F’ (Liveliness) of Cattell’s 16 PF.
FACTOR 5. The highest positive loadings on factor 5 is by variable 1- Novelty seeking (0.682) and variable 4- Persistence (0.470) and negative loading by variable 2- Harm Avoidance (-0.884). The factor-5 has been identified as “Bold and Enthusiastic Personality”.

“Bold and Enthusiastic Personality”.

Personality displays a bold, uninhibited and spontaneous nature because of negative loading on Harm Avoidance. Positive loading on Novelty Seeking and Persistence gives a shade of persistent flexibility and impulsivity in his/her nature. This factor resembles Factor ‘Q1’ (Openness to Change) of Cattell’s 16PF.

FACTOR 6. The highest loading is by variable 13- Managing Relations (0.755) on Factor-6 and low loadings is given by variable 15- Self Development (0.419), variable 8- Need Achievement (0.327) and with low negative loading by variable 18- Altruistic Behaviour (-0.358). Hence the factor has been named as “Motivated for Self development with Self Centered Attitude”.

“Motivated for Self development with Self Centered Attitude”.

The factor is so named because there is a strong tendency for Self Development and manages relations well in social setting. The negative loading on Altruistic Behaviour makes him/her self centered as he does not
work for the welfare of others. This factor resembles the low scorer description of ‘Extraversion’, namely being introvert, as described by Goldberg in his BIG FIVE Personality Model.

Eigen value

The details of eigen values of the commerce sample are given in Table 4.25.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Eigen Value</th>
<th>Percentage of Variance</th>
<th>Cumulative percentage of Variance</th>
<th>Rotated sum of squared loadings cumulative percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.439</td>
<td>28.624</td>
<td>28.624</td>
<td>26.050</td>
</tr>
<tr>
<td>2</td>
<td>2.446</td>
<td>12.876</td>
<td>41.500</td>
<td>36.797</td>
</tr>
<tr>
<td>3</td>
<td>1.659</td>
<td>8.734</td>
<td>50.234</td>
<td>45.925</td>
</tr>
<tr>
<td>4</td>
<td>1.539</td>
<td>8.101</td>
<td>58.335</td>
<td>54.875</td>
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<tr>
<td>5</td>
<td>1.264</td>
<td>6.653</td>
<td>64.987</td>
<td>63.681</td>
</tr>
<tr>
<td>6</td>
<td>1.187</td>
<td>6.248</td>
<td>71.235</td>
<td>71.235</td>
</tr>
</tbody>
</table>

The results in the Table 4.25 shows that:

1. Factor-1 has the highest eigen value therefore 28.624% variance in all the variables is accounted by factor-1.

2. Factor-2 is responsible for producing 12.876% variance in all the variables.

3. Factor-3 produces 8.734% variance in all the variables.
4. Factor-4 is responsible for 8.101% variance in all the variables.

5. Factor-5 accounts for 6.653% variance in all the variables.

6. Factor-6 produces 6.248% variance in all the variables.

Thus, 71.235% of the total variance in all the variables is accounted for by all the 6 factors showing that 28.765% variance remains unexplained which may be due to other variables not included in the present study.

**FIGURE- 4.6 SCREE PLOT OF COMMERCE SAMPLE**

Cattel (1966) advocated plotting a graph of each eigen value (Y-axis) against the factor with which it is associated (X-axis). This graph is known as scree plot. By graphing the eigen values, the relative importance of each factor becomes apparent. Typically there will be a few factors with quite high eigen values and many factors with relatively low eigen values, and so this graph has a very characteristic shape, there is a sharp descent
in the curve followed by tailing off. The above scree plot depicts the eigen values and their components of commerce sample.

**Factor Analysis of Arts Sample**

The factor analysis for the arts sample led to the emergence of 7 different factors accounting for variance in 19 variables. The detailed discussion of factor loadings, their name and their interpretation is given below. The figures within brackets indicate the factor loading of the concerned variables.

**TABLE- 4.26 UNROTATED MATRIX OF ARTS SAMPLE**

<table>
<thead>
<tr>
<th>VARIABLES/COMPONENTS</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1- Novelty Seeking</td>
<td>.092</td>
<td>-.643</td>
<td>-.071</td>
<td>-.075</td>
<td>-.025</td>
<td>.392</td>
<td>.531</td>
</tr>
<tr>
<td>T2- Harm Avoidance</td>
<td>-.184</td>
<td>.088</td>
<td>.345</td>
<td>-.666</td>
<td>.118</td>
<td>-.267</td>
<td>-.222</td>
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<tr>
<td>T3- Reward Dependence</td>
<td>.416</td>
<td>-.347</td>
<td>.394</td>
<td>.092</td>
<td>.398</td>
<td>.206</td>
<td>-.222</td>
</tr>
<tr>
<td>T4- Persistence</td>
<td>-.122</td>
<td>.454</td>
<td>-.055</td>
<td>.647</td>
<td>.079</td>
<td>-.111</td>
<td>-.010</td>
</tr>
<tr>
<td>C1- Self Directedness</td>
<td>.033</td>
<td>.716</td>
<td>-.057</td>
<td>.114</td>
<td>.052</td>
<td>.429</td>
<td>.042</td>
</tr>
<tr>
<td>C2- Cooperativeness</td>
<td>.059</td>
<td>.570</td>
<td>.512</td>
<td>-.090</td>
<td>.350</td>
<td>.187</td>
<td>.061</td>
</tr>
<tr>
<td>C3- Self Transcendence</td>
<td>.270</td>
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<td>.564</td>
<td>.316</td>
<td>.356</td>
<td>-.011</td>
<td>.237</td>
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<tr>
<td>NA- Need Achievement</td>
<td>.526</td>
<td>.061</td>
<td>.372</td>
<td>-.057</td>
<td>-.532</td>
<td>.074</td>
<td>-.123</td>
</tr>
<tr>
<td>E1- Self Awareness</td>
<td>.577</td>
<td>-.179</td>
<td>-.200</td>
<td>.266</td>
<td>.068</td>
<td>-.395</td>
<td>-.185</td>
</tr>
<tr>
<td>E2- Empathy</td>
<td>.577</td>
<td>.369</td>
<td>-.112</td>
<td>-.183</td>
<td>.320</td>
<td>-.060</td>
<td>.320</td>
</tr>
<tr>
<td>E3- Self Motivation</td>
<td>.733</td>
<td>-.108</td>
<td>.201</td>
<td>-.201</td>
<td>-.034</td>
<td>-.162</td>
<td>.166</td>
</tr>
<tr>
<td>E4- Emotional Stability</td>
<td>.705</td>
<td>-.212</td>
<td>-.388</td>
<td>-.027</td>
<td>.335</td>
<td>.031</td>
<td>-.216</td>
</tr>
<tr>
<td>E5- Managing Relations</td>
<td>.406</td>
<td>-.082</td>
<td>.430</td>
<td>.405</td>
<td>-.388</td>
<td>-.061</td>
<td>-.057</td>
</tr>
<tr>
<td>E6- Integrity</td>
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<td>.013</td>
<td>-.215</td>
<td>.320</td>
<td>-.012</td>
<td>.034</td>
<td>-.033</td>
</tr>
<tr>
<td>E7- Self Development</td>
<td>.662</td>
<td>.102</td>
<td>-.208</td>
<td>-.168</td>
<td>.099</td>
<td>-.238</td>
<td>.155</td>
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<tr>
<td>E8- Value Orientation</td>
<td>.586</td>
<td>.481</td>
<td>-.244</td>
<td>-.177</td>
<td>-.330</td>
<td>.329</td>
<td>.118</td>
</tr>
<tr>
<td>E9- Commitment</td>
<td>.469</td>
<td>.174</td>
<td>.267</td>
<td>-.177</td>
<td>-.319</td>
<td>-.105</td>
<td>.100</td>
</tr>
<tr>
<td>E10- Altruistic Behaviour</td>
<td>.436</td>
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<td>-.032</td>
<td>.125</td>
<td>.045</td>
<td>.474</td>
<td>-.538</td>
</tr>
<tr>
<td>E1- Total Emotional Intel</td>
<td>.987</td>
<td>.042</td>
<td>-.063</td>
<td>.011</td>
<td>.027</td>
<td>-.074</td>
<td>-.064</td>
</tr>
</tbody>
</table>

*Extraction Method Principal Component Analysis
7 Components extracted.*
**TABLE- 4.27 ROTATED MATRIX OF ARTS SAMPLE**

<table>
<thead>
<tr>
<th>VARIABLES/COMPONENTS</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1- Novelty Seeking</td>
<td>.029</td>
<td>-.056</td>
<td>-.202</td>
<td>.182</td>
<td>.110</td>
<td>.013</td>
<td>.883</td>
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<tr>
<td>T2- Harm Avoidance</td>
<td>-.063</td>
<td>.011</td>
<td>.036</td>
<td>-.013</td>
<td>-.834</td>
<td>-.016</td>
<td>-.194</td>
</tr>
<tr>
<td>T3- Reward Dependence</td>
<td>.156</td>
<td>.050</td>
<td>-.019</td>
<td>.675</td>
<td>-.057</td>
<td>.467</td>
<td>.063</td>
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<tr>
<td>T4- Persistence</td>
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<td>-.039</td>
<td>.337</td>
<td>.015</td>
<td>.556</td>
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<td>-.466</td>
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<tr>
<td>C1- Self Directedness</td>
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<td>.014</td>
<td>.766</td>
<td>-.219</td>
<td>.748</td>
<td>.081</td>
<td>-.119</td>
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<tr>
<td>C2- Cooperativeness</td>
<td>.076</td>
<td>.061</td>
<td>.751</td>
<td>.335</td>
<td>.072</td>
<td>-.088</td>
<td>.117</td>
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<td>C3- Self Transcendence</td>
<td>.089</td>
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<td>.037</td>
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<td>.072</td>
<td>-.088</td>
<td>.111</td>
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<tr>
<td>NA- Need Achievement</td>
<td>.133</td>
<td>.820</td>
<td>.028</td>
<td>.029</td>
<td>-.029</td>
<td>.182</td>
<td>.013</td>
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<tr>
<td>E1- Self Awareness</td>
<td>.565</td>
<td>.099</td>
<td>-.412</td>
<td>.165</td>
<td>.352</td>
<td>.113</td>
<td>.262</td>
</tr>
<tr>
<td>E2- Empathy</td>
<td>.745</td>
<td>-.018</td>
<td>.390</td>
<td>.037</td>
<td>-.042</td>
<td>-.096</td>
<td>.058</td>
</tr>
<tr>
<td>E3- Self Motivation</td>
<td>.618</td>
<td>.429</td>
<td>-.066</td>
<td>.248</td>
<td>-.160</td>
<td>.026</td>
<td>.164</td>
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<tr>
<td>E4- Emotional Stability</td>
<td>.745</td>
<td>-.120</td>
<td>-.016</td>
<td>.016</td>
<td>.146</td>
<td>.460</td>
<td>-.070</td>
</tr>
<tr>
<td>E5- Managing Relations</td>
<td>-.053</td>
<td>.663</td>
<td>.217</td>
<td>.384</td>
<td>.381</td>
<td>.037</td>
<td>-.045</td>
</tr>
<tr>
<td>E6- Integrity</td>
<td>.441</td>
<td>.153</td>
<td>.080</td>
<td>.032</td>
<td>.440</td>
<td>.174</td>
<td>-.071</td>
</tr>
<tr>
<td>E7- Self Development</td>
<td>.759</td>
<td>.111</td>
<td>-.081</td>
<td>-.024</td>
<td>-.027</td>
<td>-.015</td>
<td>.065</td>
</tr>
<tr>
<td>E8- Value Orientation</td>
<td>.431</td>
<td>.389</td>
<td>.150</td>
<td>-.317</td>
<td>.160</td>
<td>.263</td>
<td>.347</td>
</tr>
<tr>
<td>E9- Commitment</td>
<td>.346</td>
<td>.615</td>
<td>.341</td>
<td>-.105</td>
<td>-.130</td>
<td>-.133</td>
<td>-.129</td>
</tr>
<tr>
<td>E10- Altruistic Behaviour</td>
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<td>.087</td>
<td>.039</td>
<td>-.093</td>
<td>.841</td>
<td>.061</td>
</tr>
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<td>E11- Total Emotional Inteelligence</td>
<td>.849</td>
<td>.803</td>
<td>-.072</td>
<td>.145</td>
<td>.145</td>
<td>.246</td>
<td>.019</td>
</tr>
</tbody>
</table>

*Extraction Method Principal component Analysis*
*Rotation Method Varimax with Kaiser Normalization.*
FACTORS DERIVED AND THEIR INTERPRETATION

OF ARTS SAMPLE

FACTOR 1. The highest loadings on Factor 1 are given by Variable 19- Total Emotional Intelligence (0.849), variable 10- Empathy (0.745), variable 15- Self Development (0.759) and variable 12- Emotional Stability (0.745), whereas, variable 9- Self Awareness (0.565), variable 11- Self Motivation (0.618), variable 14- Integrity (0.441), variable 16- Value Orientation (0.431) and variable 17- Commitment (0.346) have shown moderate loadings on this factor. The factor has been named as “Emotional Intelligent”.

The factor has been identified as Emotional Intelligence Personality as it has significant loading on eight sub-dimensions of Emotional Intelligence (i.e, Empathy, Self Awareness, Self Motivation, Emotional Stability, Integrity, Value Orientation, Commitment and Self Development) along with high loading on Total Emotional Intelligence.

FACTOR 2. Variable 8- Need Achievement (0.820) and variable 19- Total Emotional intelligence (0.803) has given highest loadings on factor 2, along with moderate loadings of variable 13- Managing Relations (0.663), variable 17- Commitment (0.615), variable 11- Self Motivation (0.429),
and variable 16- Value Orientation (0.389). Hence factor-2 has been identified as "Emotional Intelligence with High Need Achievement".

"Emotional Intelligence with High Need Achievement".

The factor has been identified as Emotional Intelligence as it has significant loading on four sub-dimensions of emotional intelligence (i.e., Self Motivation, Managing Relations, Value Orientation and Commitment) along with high loading on Total Emotional Intelligence and Need Achievement.

This factor was found and named in all the groups except life sciences group. Though Need Achievement was present with Emotional Intelligence variable in life sciences group, but with low loading. The sub dimensions of Emotional Intelligence were found to be significantly highly correlated with Need Achievement. Though the sub-dimensions of emotional intelligence differed in the groups, the number of sub dimensions with positive and significant loading was five to nine out of ten. Self Motivation is found to be common in all. The sub dimension Managing Relations and Commitment of Emotional Intelligence did not emerge as a variable in total sample but it was found in rest of the groups. Altruistic Behaviour another important dimension of Emotional Intelligence was found only in female and commerce group. Value Orientation was found in female, social sciences, arts and commerce group. Male and female group differed in Value Orientation and Altruistic Behaviour.
Commerce is the only group having Altruistic Behaviour but lacking Commitment which is present in arts and social sciences group. Art is the only group having only four sub dimensions of positive and significant loading with the Total Emotional Intelligence, namely Self Motivation, Managing Relations, Value Orientation and Commitment.

It is seen that Need Achievement is a part of Emotional Intelligence, since high emotional intelligence have a high need achievement. Emotions and motivation are inter-linked because no motivation can exist without having an emotional base or vice versa.

**FACTOR 3.** Variable 5- Self Directedness (0.766) and variable 6- Cooperativeness (0.751) have given the highest loadings on factor-3 whereas variable 10- Empathy (0.390), variable 17- Commitment (0.341) and variable 4- Persistence (0.337) have given the low loadings on factor 3. And variable 9- Self Awareness (-0.412) have a considerable low negative loading on factor 3. Therefore the factor has been named as "High Extrinsic motivation with lack of Self Awareness".

The factor has been named 'High Extrinsic Motivation' because of significant high loading found on Self Directedness and Cooperativeness. Other variables like empathy, Commitment and Persistent shows that a person is persistently motivated of extrinsic nature. The personality also
displays a significant negative loading on Self Awareness showing that one exists as a separate individual with private thoughts. Such a person are likely to be failure even though they are highly motivated and persistence because they do not know themselves neither others.

**FACTOR 4.** Variable 7- Self Transcendence (0.839) have given the highest loading along and variable 3- Reward Dependence (0.675), variable 13- Managing Relations (0.384), variable 6- Cooperativeness (0.335) show moderate loading on factor 4 with low negative loading by variable 16- Value Orientation (-0.317). The factor-4 has been named as “Extrinsic Religious Orientation”.

The positive high loading on Self Transcendence makes the personality religiously/ spiritually oriented but a negative loading on Value Orientation shows that religiosity is superficial.

According to Ken and Rolan (1980) in their study described the extrinsically religious and non religious subjects seemed to reflect greater self indulgence, indolence, and undependability. They tended to be more flexible, self reliant, skeptical, pragmatic and less sentimental. They also seem to have been more innovative, analytical, and free thinking. They tended to be less rigid, and this tendency may decrease their propensity towards pathology. An examination of the research reveals an interesting trend in terms of
personality and religious orientation. Extrinsically religious subjects tend to be similar to non-religious subjects but different from intrinsically religious subjects.

Research concerning emotional stability, has yielded contradictory results. Religious subjects have in some studies have been found to be more emotional, tense an insecure than non-religious subjects (Barton and Vaughan, 1976 and Slater, 1947). However Brown and Lowe (1951) report non-religious subjects as more insecure and tense. In addition, extrinsically religious and non-religious subjects ten to be more emotional than those who are intrinsically religious. (Hamby, 1973 and Kahoe, 1974).

FACTOR 5. Variable 2- Harm Avoidance (-0.834) has given the high negative loadings on factor 5. The variable 5- Self Directedness (0.748) show a high positive loading with moderate positive loadings by variable 4- Persistence (0.556), variable 14- Integrity (0.440) along with low loadings by variable 13- Managing Relations (0.381) and variable 9- Self Awareness (0.352). The factor has been identified as "Self Directed Optimistic Personality".

"Self Directed Optimistic Personality".

This personality has a high loading on Self Directedness- a sub dimension of character variable. Along with Self Directedness; Persistence, integrity, Managing Relations shows that the personality is socially oriented.
Self Awareness having a significant loading on this factor shows that a person is well aware of his/her feelings/emotions. The optimistic nature is so named because of the negative loading on Harm Avoidance, a dimension of temperament variable. The factor is found in Total sample, male, female and arts groups.

**FACTOR 6.** The highest loadings on Factor-6 is given by variable 18- Altruistic Behaviour (0.841) and with moderate loading by variable 12- Emotional Stability (0.460) and variable 3- Reward Dependence (0.467). The factor identified has been named as "**Extrinsic Motivation with Altruism**".

**“Extrinsic Motivation with Altruism”**.

The trait has been named as ‘Extrinsic Motivated with Altruism’ because of significant loading on Altruistic Behaviour and Reward Dependence. The personality is dependent on approval of others, is a staunch follower of principles and values, is also emotionally stable and works on the welfare of others. The strong loading on altruism shows that one is trusting and very ethical in his relations with others.

**FACTOR 7.** Variable 1- Novelty Seeking (0.883) has given highest positive loadings and variable 16- Value Orientation (0.347) has given moderate positive loading on factor 7 along with moderate negative loading
by variable 4- Persistence (-0.466). The factor has been named as “Impulsive and Enthusiastic Personality”.

The factor has been named impulsive and enthusiastic because of positive high loading on Novelty Seeking. Moreover this personality follows principles laid down by individual and social group but is not persistence in his nature and may display frustration and fatigue (as it has negative loading on Persistence). This factor resembles Factor “Q4” (High Ergic Tension) of Cattell’s 16PF, i.e, Tense, high energy, impatient, driven, frustrated, over wrought and time driven.

Eigen value

The details of eigen values of the arts sample are given in Table 4.28.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Eigen Value</th>
<th>Percentage of Variance</th>
<th>Cumulative percentage of Variance</th>
<th>Rotated sum of squared loadings cumulative percentage</th>
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</thead>
<tbody>
<tr>
<td>1</td>
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<td>2.170</td>
<td>11.419</td>
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<td>30.424</td>
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<tr>
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<td>1.658</td>
<td>8.728</td>
<td>45.961</td>
<td>39.742</td>
</tr>
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<tr>
<td>7</td>
<td>1.010</td>
<td>5.316</td>
<td>71.881</td>
<td>71.881</td>
</tr>
</tbody>
</table>

The results in the Table 4.28 shows that:

1. Factor-1 has the highest eigen value therefore 25.815% variance in all the variables is accounted by factor-1.
2. Factor-2 is responsible for producing 11.419% variance in all the variables.

3. Factor-3 produces 8.728% variance in all the variables.

4. Factor-4 is responsible for 7.949% variance in all the variables.

5. Factor-5 accounts for 6.853% variance in all the variables.

6. Factor-6 produces 5.802% variance in all the variables.

7. Factor-7 accounts for 5.316% variance in all the variables.

Thus, 71.881% of the total variance in all the variables is accounted for by all the 7 factors showing that 28.119% variance remains unexplained which may be due to other variables not included in the present study.

**FIGURE- 4.7 SCREE PLOT OF ARTS SAMPLE**

Scree Plot for Arts Sample

Cattel (1966) advocated plotting a graph of each eigen value (Y-axis) against the factor with which it is associated (X-axis). This graph is known as scree plot. By graphing the eigen values, the relative importance of
each factor becomes apparent. Typically there will be a few factors with quite high eigen values and many factors with relatively low eigen values, and so this graph has a very characteristic shape, there is a sharp descent in the curve followed by tailing off. The above scree plot depicts the eigen values and their components of arts sample.

RESULT AND DISCUSSION OF FACTOR ANALYSIS

Many factors of personality have been derived by different psychologist. The findings of the present study shows that a person/ groups of person exhibit different constellation/organization of personality traits. This may be related to the sample under study. Besides different constellation of personality traits, evidence for bipolar dimension have been found in the present study. For example: external- internal orientation (in both religiousness and emotional intelligence), reflective – impulsive orientation and optimism – pessimism orientation. When Emotional Intelligence is in a way very similar to Social Intelligence (Thordike, 1920), (Ahmed and Zainuddin, 2003) it exhibits itself in social orientation; however, when combined with Self Transcendence (dimension of Character) it might take an internal orientation in the personality. A developed sense of spiritual orientation/ spiritual intelligence is an evolutionary advantage- those who have it are better able to keep going in conditions when other might give up.
Chapter 4

Analysis And Interpretation of Data

The sense of purpose gives a heightened intrinsic motivation and a reason for living.

The factor named 'Spiritual Orientation' has the variables of Emotional Intelligence, namely, Altruistic Behaviour, Emotional Stability, Self Awareness and Integrity; along with Need Achievement and Self Transcendence- a dimension of Character, having transpersonal identity and spiritual acceptance. This gives Character a moral base. Self awareness is one of the domain of emotional intelligence. Within self awareness, we find self esteem. Self esteem seems to be higher in those who are religiously active. (Thompson, 2006)

Emotional Intelligence having sub dimensions of Empathy, Commitment, Self Awareness (negatively loading) has also been found to form a cluster with Self Directedness (a dimension of Character having responsibility) and Cooperativeness (another dimension of Character having social acceptance, helpfulness, empathy and integrated conscience). The factor has been named as 'High Extrinsic Motivation with lack of Self Awareness'.

Another factor which has been named as 'Spiritually Oriented Personality' has Altruistic Behaviour- a dimension of Emotional Intelligence which again forms a cluster with all the three dimensions of Character, namely, Self Directedness, Self Transcendence and Cooperativeness.
Another factor which has been named as 'Materialistic and Self Centered Personality', has variables like Novelty Seeking, Persistence (negative loaded) and Reward dependence (the sub dimensions of temperament) along with Self development, Value Orientation (negative loaded) and Commitment (negatively loaded)- the sub dimensions of Emotional intelligence. A genius could use his intellect either to cure cancer or engineer a deadly virus. Emotional Intelligence can be used for good as well as evil or for selfish vested interest. Someone with a high emotional intelligence can inspire colleagues, or exploit them without a moral compass to guide people. (Thompson, 2006). For example Cooperativeness has an integrated conscience which also is of course related to morality, and the moral values and its development not only occurs through religious practice but also with how one knows and manages his emotions.

Just as motives are central to our personality and behaviour, so are emotions. Emotions are products of Autonomous nervous system. Emotions and autonomous nervous system plays a central role in 'will'. Also Persistence – a sub dimension of Temperament, Need Achievement, Self Directedness, Self Transcendence and Cooperativeness- the sub dimensions of Character, Integrity, Value Orientation, Empathy, Altruistic Behaviour (sub dimenions of Emotional Intelligence) may all be related to the ‘will power’ of an individual. Will then could be thought of as an important thread running in various personality factors. Existentialists also believe in free will in man.
Will may be treated as partly inherited and partly learned. According to certain religious beliefs will is a ‘given in nature’ through which one decides between good and evil path. Therefore the constellation of Persistence- a sub dimension of Temperament, which is biologically determined and Self Directness along with Cooperativeness and in some cases with Self Transcendence (the three sub dimensions of Character) appeared.

The idea that Will is the motive power of the personality— the faculty or function of the person, generally based on intuitive grounds, is associated with Plato, Aristotle, Lucretius, St. Thomas Aquinas, René Descartes, and Immanuel Kant. Others have considered it the externalized result of the interaction of conflicting elements. These include Baruch Spinoza, G. W. von Leibniz, David Hume, J. G. Herbert, Wilhelm Wundt, Herbert Spencer, and Hugo Münsterberg. Still others have considered the will to be the manifestation of the personality striving to accomplish its purposes. Among these are St. Augustine, Duns Scotus, Thomas Hobbes, Arthur Schopenhauer, Friedrich Nietzsche, William McDougall, and John Dewey. (Columbia Encyclopedia)

Goal Orientation is a part of Self Directedness. Recently educational psychologists have emphasized goal orientation which leads to better performance, learning and achievement.

The present day scenario is sometimes full of moral chaos and its resulting negative effects on various aspects of life. Educationists must deal
with character in its psychological aspects for a fuller development of
personality. Persistence need not be emphasized as for every task and
endeavor this attitude is very essential. Cooperativeness has an integrated
conscience which also is of course related to morality, and the moral values
and its development not only occurs through religious practice but also with
how one knows and manages his emotions.
Chapter 5

SUMMARY, CONCLUSION, SUGGESTIONS AND EDUCATIONAL IMPLICATIONS
SUMMARY, CONCLUSION, SUGGESTIONS AND EDUCATIONAL IMPLICATIONS

The question raised in the mind of the researcher is whether Emotional Intelligence has any relation with Need Achievement. According to Goleman (1998) in Emotional Intelligence there is a dimension called ‘Achievement Drive’ which seems to be directly related to Need Achievement. However whether other dimensions like: Self Awareness, Self –Regulation, Empathy and Social Skills of Emotional Intelligence are also related to Need Achievement.

As far as the Character and Temperament are concerned, there are seven (7) dimensions and again we want to know whether Emotional Intelligence is any way related to or has any relationship with these factors. For example, Reward Dependence is dependence on approval of others therefore it is quite possible that students high in Need Achievement may depend highly on approval of others. Similarly in recent times Self Regulation and Self Monitoring has been emphasized in learning situations. Self regulation and monitoring studies are done in the context of cognitive and metacognitive studies. (eg. Kluwe, 1982). Since we consider personality characteristics as generalized in different walks of life including learning, perception etc, therefore the study of personality factors seems to be relevant to Need Achievement as well as to Emotional Intelligence.
Moreover, the investigator chose these four variables on the basis that firstly Emotional Intelligence has recently gained utmost importance and is being applied in all the fields and has earned an edge over IQ in the last decade. Temperament and Character variables are together used mostly in clinical studies. Just like motives are central to any theory of personality and therefore has a strong education implication so are our emotions. Motives are emotions in actions. Temperament and character are both biological and psychological. We cannot disregard temperament and character from any understanding of human behaviour and therefore these implications to the field of education cannot be overlooked. It was felt that these variables as a major part of personality should be dealt in educational field and lastly the ‘need’ for “Need Achievement” was because as the study is a research in education, it becomes immensely important to apply these variables in the educational field and classroom environment where the achievement motivation is of paramount importance for the students.

OBJECTIVES OF THE STUDY

The objectives of the present study are given below:

1. To study the relationship between ten sub dimensions of Emotional Intelligence and Need Achievement.

2. To study the relationship between ten sub dimensions of Emotional Intelligence and four sub dimensions of Temperament.
3. To study the relationship between the ten sub dimensions of Emotional Intelligence and three sub dimensions of Character.

4. To study the relationship between the four sub dimensions of Temperament and Need Achievement.

5. To study the relationship between the three sub dimensions of Character and Need Achievement.

6. To study the relationship between the four sub dimensions of Temperament and three sub dimensions of Character.

7. To search the factors involved in Emotional Intelligence, Need Achievement, Temperament and Character.

The main objective of the study is to find out the common factors that account for the relationship between Emotional Intelligence, Need Achievement, Temperament and Character.

HYPOTHESES

In order to study the objectives the following hypotheses were formulated in the form of null-hypothesis:

1. There is no relationship between any sub dimensions of Emotional Intelligence and Need Achievement.

2. There is no relationship between any sub dimensions of Emotional Intelligence and any sub dimensions of Temperament.
3. There is no relationship between any sub dimensions of Emotional Intelligence and any sub dimensions of Character.

4. There is no relationship between any sub dimensions of Temperament and Need Achievement.

5. There is no relationship between any sub dimensions of Character and Need Achievement.

6. There is no relationship between any sub dimensions of Temperament and any sub dimensions of Character.

For objectives from one (1) to six (6), the investigator employed the product moment correlation. In order to test the hypotheses from one to six, product moment correlation was found between the four variables along with their sub dimensions.

In order to study the seventh (7th) objective the investigator used the rotated varimax techniques of Factor Analysis.

**FINDINGS BASED ON INTER CORRELATION**

In order to study the six objectives namely:

1. Relationship between ten sub dimensions of Emotional Intelligence and Need Achievement.

2. Relationship between ten sub dimensions of Emotional Intelligence and four sub dimensions of Temperament.
3. Relationship between ten sub dimensions of Emotional Intelligence and three sub dimensions of Character.

4. Relationship between four sub dimensions of Temperament and Need Achievement.

5. Relationship between three sub dimensions of Character and Need Achievement.

6. Relationship between four sub dimensions of Temperament and three sub dimensions of Character.

The product moment correlation coefficient yielded the following results. Only the important and significant results have been summarized as follows:

1) **Temperament: Novelty Seeking** - a sub dimension of temperament has significant negative correlation with Harm Avoidance, Reward Dependence and Persistence (sub dimensions of Temperament) along with Self Directedness, Cooperativeness and Self Transcendence (all the sub dimensions of Character) in all the groups.

   **Harm Avoidance** - a sub dimension of temperament has significant negative correlation with Reward Dependence, Novelty seeking and Persistence (sub dimensions of Temperament) and Self Directedness, Cooperativeness and Self Transcendence (all the sub dimensions of Character) in all the groups. In life sciences and female
groups Harm Avoidance has a significant positive correlation with Reward Dependence (a sub dimension of Temperament).

**Reward Dependence**- a sub dimension of temperament has a positive significant correlation with Self Directedness, Cooperativeness and Self Transcendence (the three sub dimensions of Character). Reward Dependence has positive correlation with Emotional intelligence having sub dimensions like Self Motivation, Self Development, Managing relations and Total Emotional Intelligence in Total sample and with the same sub dimensions of Emotional Intelligence in addition to Altruistic Behaviour (another sub dimension of Emotional intelligence) was observed in arts group. Reward Dependence is negatively correlated to Harm avoidance (a sub dimension of Temperament) in male group and negatively correlated to Novelty Seeking (a sub dimension of Temperament) in commerce group.

**Persistence**- a sub dimension of temperament is significantly and positively correlated to Self Directedness, Cooperativeness (sub dimensions of Character) and Reward Dependence (a sub dimension of Temperament). The common variable negatively correlated to Persistence in all the groups is Harm Avoidance (a sub dimension of Temperament). Persistence is also negatively correlated to Novelty Seeking (a sub dimension of Temperament) in arts group. Persistence
is positively correlated to Need Achievement; Managing Relations, Self Awareness, Integrity (sub dimensions of Emotional Intelligence) and Total Emotional Intelligence in social sciences group. And Persistence is significantly correlated to Need Achievement and Managing Relations in Total sample.

2) Character: **Self Directedness**- a sub dimension of Character is positively correlated to Persistence (a sub dimension of Temperament) and Cooperativeness (a sub dimension of Character) in all the groups except in life sciences group, where Self directedness is only negatively correlated to Harm Avoidance (a sub dimension of Temperament). Managing Relations (a sub dimension of Emotional Intelligence) is positively correlated to Self Directedness in social sciences group and Value Orientation (a sub dimension of Emotional Intelligence) is positively correlated to Self Directedness in commerce group. Commitment (a sub dimension of Emotional intelligence) is positively correlated to Self Directedness in arts group. Self Directedness is negatively correlated to Novelty Seeking (a sub dimension of Temperament) in Total sample, female, social sciences, commerce and arts groups.

**Cooperativeness**- a sub dimension of character is positively correlated to Reward Dependence and Persistence (sub dimensions of
Temperament) and Self Directedness (a sub dimension of Character) in all the groups. Cooperativeness is also significantly and positively correlated to Need Achievement in Total sample only. And it is found that Cooperativeness is positively correlated to Empathy (a sub dimension of Emotional Intelligence) in female group and with Self Transcendence (a sub dimension of Character) in commerce group only. Cooperativeness is significantly and negatively correlated to Novelty Seeking (a sub dimension of Temperament) in all the groups except life sciences group and also Cooperativeness is negatively correlated to Harm Avoidance (a sub dimension of Temperament) in social sciences group.

*Self Transcendence*- a sub dimension of character is positively correlated to Reward Dependence (a sub dimension of Temperament) and Cooperativeness (a sub dimension of Character) in Total sample, male, female, commerce and arts groups only. Self Transcendence is positively correlated to Need Achievement in social sciences group only. Self Transcendence is positively correlated to Value Orientation (a sub dimension of Emotional Intelligence) in female group; with Self Awareness, Self Motivation and Managing Relations (sub dimensions of Emotional Intelligence) in arts group only. Self Transcendence is significantly negatively correlated to Harm Avoidance (a sub
dimension of Temperament) in Total sample, male, and life sciences group only.

3) **Need Achievement**: Need Achievement is significantly and positively correlated with Persistence (a sub dimension of Temperament) in Total sample; with Self Directedness and Cooperativeness (sub dimensions of Character) in Total sample, male and female groups. Need Achievement has maintained a positive and significant relationship with almost all the sub dimensions of Emotional Intelligence in all the groups.

4) **Emotional Intelligence**: Emotional Intelligence has yielded a constant positive and significant relationship with Need Achievement in all the groups. Emotional Intelligence is positively correlated to Reward Dependence (a sub dimension of Temperament) in Total sample and arts group; with Persistence (a sub dimension of Temperament) in social sciences group only and with Cooperativeness (a sub dimension of Character) in life sciences group only. Further Emotional Intelligence is negatively correlated to Harm Avoidance (a sub dimension of Temperament) in the Total sample.

Therefore the researcher has rejected all the null hypotheses as significant relationships were observed in some or the other sub dimensions
of all the four variables, namely, Emotional Intelligence, Need Achievement, Temperament and Character.

**FINDINGS BASED ON FACTOR ANALYSIS**

In order to study the seventh objective namely *The factors involved in Emotional Intelligence, Need Achievement, Temperament and Character*, varimax techniques of factor analysis was used and the findings are summarized as follows:

**FINDINGS**

Considering all the result 23 factors/traits have emerged, namely:

1) Emotional Intelligence with High Need Achievement.
2) Extrinsically motivated Emotional Intelligent.
3) Spiritual Orientation/ Religious Orientation.
4) Reflective and Persistent Personality.
5) Self Actualization Orientation.
6) Self Directed Optimistic Personality.
7) Leadership.
8) Self Confident/Self Dependent Personality
9) Extrinsically Motivated, Cautious/Pessimistic and Reflective Personality.
10) Highly Motivated for Self Development.
11) Hedonistic/ Self Centered Personality.
12) Self Directed, Reflective and Optimistic Personality.
13) Materialistic and Self Centered Personality.
14) Emotional Intelligent directed towards being Self Centered.
15) Timid and Suggestible Personality.
16) Lively and Conscientious Personality.
17) Bold and Enthusiastic Personality.
18) Motivated for Self Development with Self Centered Attitude.
19) Emotional Intelligent.
20) High Extrinsic Motivation with lack of Self Awareness.
22) Extrinsic Motivation with Altruism.
23) Impulsive and Enthusiastic.

SUMMARY OF THE RESULT

The statistical results and their interpretation have led to certain significant findings. On the basis of these findings, certain significant suggestions are made. Considering all the result, 23 factors have emerged and in a nut shell the result is summarized and concluded as:

1) We find that factor 'Emotional Intelligence with High Need Achievement' is common in all the groups except life sciences group
(Though Need Achievement was present with Emotional Intelligence variable in life sciences group, but with low loading).

2) The three factors common in male and female samples are ‘Emotional Intelligence with High Need Achievement’, ‘Self Actualization Orientation’ and ‘Self Directed Optimistic Personality’.

3) The male sample differed from female sample by having factors like ‘Extrinsically Motivated Emotional Intelligent’, ‘Leadership’ and ‘Self Confident/Self Dependent Personality’.

4) The female sample differed from male sample by having factors like: ‘Highly Motivated for Self Development and Hedonistic/Self Centered Personality’.

5) Male and female sample also have one factor i.e, ‘Extrinsically Motivated personality’, which is ‘reflective’ in female sample and which is ‘reflective and cautious/pessimistic’ in the male sample.

6) The factor ‘Religious Orientation’ with intrinsic orientation is present in social sciences group and the same factor with extrinsic orientation is present in arts group.

7) There is a proof for intrinsic and extrinsic religious orientation of Allport (1967). Factor like ‘Self Actualization Orientation’ is found in Total sample, male, female and commerce groups.

8) Factor ‘Spiritual Orientation’ i.e., intrinsically religious orientation according to Allport is found in total sample and life sciences sample.
9) Life sciences group showed unique qualities like ‘Timid and Suggestible personality’ and ‘Leadership’.

10) ‘Leadership’ was found only in two groups, namely male and life sciences group.

11) The peculiar quality present in social sciences group is ‘Materialistic and Self Centered Personality’.

12) The commerce group proved its unique qualities by having factors like ‘Live and Conscientious Personality’ and ‘Bold and Enthusiastic Personality’.

13) Arts group has stood out from the rest of the group by having qualities like ‘Extrinsic Religious Orientation’, ‘Extrinsic Motivation with Altruism’ and ‘Impulsive and Enthusiastic Personality’.

14) The combination of Self Centered Attitude is present in three groups. In social sciences group ‘Materialistic and Self Centered Personality’ is present. In life sciences group ‘Emotional Intelligent directed towards being Self Centered Personality’ is present and in commerce group ‘Motivated for Self Development with Self Centered Attitude’ is present. The reason being that the sub dimension ‘Self Development’ is common in all with different combination with other sub dimensions. The variable emotional intelligence with predominance of self centeredness may be related to the present sample, more specifically
Chapter- 5 Summary, Conclusion, Suggestions & Educational Implications

'age' may be responsible for self centeredness. Once a person gains self-confidence he/she may turn towards others development.

15) Persistence - a dimension of temperament has quite often been found to form a constellation along with Self Directedness and Cooperativeness- the two dimensions of Character. It seems that a temperament having persistence leads to high character in terms of Self-Directedness and Cooperativeness.

EDUCATIONAL IMPLICATIONS

The educational implications of the study are discussed as follows:

The teacher's level of EQ is an important variable in creating a classroom where EI can be developed more effectively. And the single most important variable in the teacher's EQ is how they handle their own emotions, especially their negative emotions. An effective, successful teacher is largely one who can handle his or her negative feelings in an authentic, real and healthy way.

Suggestion for teachers:

1. To identify one's feelings- Taking responsibility for them and not blaming the children for one's feelings. There is a little space between stimulus and response, and in this space lies the power to choose one's reaction.
2. Use one's emotional awareness to learn about oneself. One's negative feelings reveal one's unmet emotional needs. The children are not there to meet a teacher's needs, but a teacher is there to meet theirs. Thus, one must either get one's needs met somewhere else, or one must "let go" of some of his/her needs, such as a need to have control, or to feel obeyed. Respect is something you earn, not demand. The easiest way to do this is to show respect for each individual child's feelings, and remember his negative feelings are indications of unmet emotional needs. The more help the child identify and meet the needs, the happier and contended everyone will be.

3. Work on keeping one's area of acceptance wide open. When a person feels good about oneself he/she is more accepting, tolerant, patient, understanding and predictable. This helps the students feel accepted, approved of, secure, relaxed, good about themselves. These contribute to healthy self-esteem, openness to learn and willingness to cooperate.

4. Encouraging students to express their feelings with appropriate vocabulary (giving words to emotions/feelings). And helping students to resolve their own conflicts.

Character is at the core of leadership. We need sincere leaders who can build the Nation. Persistence - an aspect of temperament and Self Directedness, Cooperativeness and Self Transcendence have to be taken into
consideration while planning strategies for teaching into classroom. These factors are important for personality development.

Self Transcendence is necessary for self actualization which is the highest motive in Maslow's hierarchy of Needs. It has to be gradually inculcated and age variable along with other factors should be taken into consideration while teaching for Self Transcendence.

Excessive Harm Avoidance can be related to social phobia which has to be controlled by a competent teacher. There is a need to change the cognitive structure of the students for better social development. In place of excessive Harm Avoidance self confidence, a mature self assertion and self directedness have to be created.

This study emphasizes a holistic approach to personality development among students. They have to be taught actions, choice and responsibility (Character). Self Directedness is very important as Self Directedness includes responsibility, purposefulness, resourcefulness and self acceptance. Goal Orientation is a part of Self Directedness. Recently educational psychologists have emphasized goal orientation which leads to better performance, learning and achievement.

The present day scenario is sometimes full of moral chaos and its resulting negative effects on various aspects of life. Educationists must deal with character in its psychological aspects for a fuller development of personality. Persistence need not be emphasized as for every task and
endeavor this attitude is very essential. Cooperativeness has a component namely ‘integrated conscience’ which of course is related to morality and its development not only occurs through religious practice but also with how one knows and manages his emotions. A constellation of personality factors such as Persistence, Cooperativeness, Self Directedness and if possible Self Transcendence along with Emotional Intelligence is desirable.

SUGGESTIONS FOR FURTHER RESEARCH

Though the present investigation has been carried out with due care and thought regarding various aspects of the research work, it may continue to have some shortcomings which have been realized during the conduction of the research. Being conscious of the shortcomings some suggestions are being made here for further investigations in this area:

- Cloninger (1993) has developed the Temperament and Character Inventory (TCI) with 226 items. The administration of the test with other variables has proved very comprehensive. Hence another test on temperament and character should be developed with fewer items and standardized in our Asian environment.

- The sample was restricted to Aligarh city only. The sample for the data collection could be outside Aligarh city so that a comparative study between the different departments of two or more universities can be studied. Moreover in Aligarh, only Aligarh Muslim University,
selected departments were approached for data collection and affiliated colleges were excluded.

- The sample of the study can include Department of Medicine, Department of Engineering and Department of Business Administration other than the targeted departments of the study, i.e., arts, life sciences, commerce and social sciences only.

- Other variables suggested for further research for factor analytic study are spiritual intelligence, cultural intelligence, aptitude creativity, study habits etc.
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APPENDICES
QUESTIONNAIRE

In this booklet you will find statements people might use to describe their attitudes, opinions, interests and other personal feelings.

Read the statement and decide which choice best describes you. Try to describe the way you usually or generally act or feel, not just how you are feeling right now. Please answer every statement, even if you are not completely sure of the answer. Remember there are no right or wrong answers- just describes your own personal opinions and feelings.

Do not put any mark on the statements. Response must be made to each statement. The purpose behind collecting this information is research work. And the success of the research depends upon the sincerity in giving the response. Your identity will he kept confidential.

SECTION-A

1. I often try new things just for fun or trills, even if most people think it is waste of time.
2. I usually am confident that everything will go well, even in situations that worry most people.
3. I am often moved deeply by a fine speech or poetry.
4. I often feel that I am the victim of circumstances.
5. I can usually accept other people as they are, even when they are very different from me.
6. I believe that miracles happen.
7. I enjoy getting revenge on people who hurt me.
8. Often when I am concentrating on something, I lose awareness of the passage of time.
9. Often I feel that my life has little purpose or meaning.
10. I like to help find a solution to problems so that everyone comes out ahead.
11. I could probably accomplish more than do, but I don't see the point in pushing myself harder than is necessary to get by.
12. I often feel tense and worried in unfamiliar situations, even when others feel there is little to worry about.
13. I often do things based on how I feel at the moment without thinking about how they were done in the past.
14. I usually do things my own way - rather than giving in to the wishes of other people.
15. I often feel so connected to the people around me that it is like there is no separation between us.
16. I generally don't like people who have different ideas from me.
17. In most situations my natural responses are based on good habits that I have developed.
18. I would do almost anything legal in order to become rich and famous, even if I would lose the trust of many old friends.
19. I am much more reserved and controlled than most people.
20. I often have to stop what I am doing because I start worrying about what might go wrong.
21. I like to discuss my experiences and feelings openly with friends instead of keeping them to myself.
22. I have less energy and get tired more quickly than most people.
23. I am often called 'absent-minded' because I get so wrapped up in what I am doing that I lose track of everything else.
24. I seldom feel free to choose what I want to do.
25. I often consider another person's feelings as much as my own.
26. Most of the time I would prefer to do something a little risky (like riding in a automobile over steep hills and sharp turns) rather than having to stay quiet and in active for a few hours.
27. I often avoid meeting strangers because I lack confidence with people I do not know.
28. I like to please other people as much as I can.
29. I like old "tried and true" ways of doing things much better then trying "new and improved" ways.
30. Usually I am not able to do things according to their priority of importance to me because of lack of time.
31. I often do things to help protect animals and plants from extinction.
32. I often wish that I was smarter than everyone else.
33. It gives me pleasure to see my enemies suffer.
34. I like to be very organized and set up rules for people whenever I can.
35. It is difficult for me to keep the same interests for a long time because my attention often shifts to something else.
36. Repeated practice has given me good habits that are stronger than most momentary impulses or persuasion.
37. I am usually so determined that I continued to work long after other people have given up.
38. I am fascinated by the many things in life that cannot be scientifically explained.
39. I have many habits that I wish I could break.
40. I often wait for someone else to provide a solution to my problems.
41. I often spend money until I run of cash or get into debt from using too much credit.
42. I think I will have very good luck in the future.
43. I recover more slowly than most people from minor illnesses or stress.
44. It wouldn't bother me to be alone all the time.
45. Often I have unexpected flashes of insight or understanding while relaxing.
46. I don't care very much whether other people like me or the way I do things.
47. I usually try to get just what I want for myself because it is not possible to satisfy everyone anyway.
48. I have no patience with people who don't accept my views.
49. I don't seem to understand most people well.
50. You don't have to be dishonest to succeed in business.
51. I sometimes feel so connected to nature that everything seems to be part of one living organism.
52. In conversations I am much better as a listener than as a talker.
53. I lose my temper more quickly than most people.
54. When I have to meet a group of strangers, I am more shy than most people.
55. I am more sentimental than most people.
56. I seem to have a "sixth sense" that sometimes allows me to know what is going to happen.
57. When someone hurts me in any way, I usually try to get even.
58. My attitudes are determined largely by influences outside my control.
59. Each day I try to take another step toward my goals.
60. I often wish I was stronger than everyone else.
61. I like to think about things for a long time before I make a decision.
62. I am more hard working than most people.
63. I often need naps or extra rest periods because I get tired so easily.
64. I like to be of service to others.
65. Regardless of any temporary problem that I have to overcome, I always think it will turnout well.
66. It is hard for me to enjoy spending money on myself, even when I have saved plenty of money.
67. I usually stay calm and secure in situations that most people would find physically dangerous.
68. I like to keep my problems to myself.
69. I like to stay at home better than to travel or explore new places.
70. I do not think it is smart to help weak people who cannot help themselves.
71. I cannot have any peace of mind if I treat other people unfairly, even if they are unfair to me.
72. People will usually tell me how they feel.
73. I often wish I could stay young forever.
74. Sometimes I have felt I was part of something with no limits or boundaries in time and space.
75. I sometimes feel a spiritual connection to other people that I cannot explain in words.
76. I try to be considerate of other people's feelings, even when they have been unfair to me in the past.
77. I like it when people can do whatever they want without strict rules and regulations.
78. I would probably stay relaxed and outgoing when meeting a group of strangers, even if I were told they are unfriendly.
79. Usually I am more worried than most people that something might go wrong in the future.
80. I usually think about all the facts in detail before I make a decision.
81. I feel it is more important to be sympathetic and understanding of other people than to be practical and tough minded.
82. I often feel a strong sense of unity with all the things around me.
83. I often wish I had special powers like Superman.
84. Other people control me too much.
85. I like to share what I have learned with other people.
86. Religious experiences have helped me understand the real purpose of my life.
87. I often learn a lot from people.
88. Repeated practice has allowed me to become good at many
things that help me to be successful.

89. I am usually able to get other people to believe me, even when I know that what I am saying is exaggerated or untrue.

90. I need much extra rest support, or reassurance to recover from minor illness or stress.

91. I know there are principles for living that no one can violate without suffering in the long run.

92. I don't want to be richer than everyone else.

93. I would gladly risk my own life to make the world a better place.

94. Even after thinking about something a long time, I have learned to trust my feelings more than my logical reasons.

95. Sometimes I have felt my life was being directed by spiritual force greater than any human being.

96. I usually enjoy being mean to anyone who has been mean to me.

97. I have a reputation as someone who is very practical and does not act on emotion.

98. It is easy for me to organize my thoughts while talking to someone.

99. I am strongly moved by sentimental appeals (like when asked to help crippled children).

100. I usually push myself harder than most people do because I want to do as well as I possibly can.

101. I have so many faults that I don't like myself very much.

102. I have too little time to look for long-term solutions for my problems.

103. I often cannot deal with problems because I just don't know what to do.

104. I often wish I could stop the passage of time.

105. I hate to make decisions based only on my first impressions.

106. I prefer spending money rather than saving it.

107. I can usually do a good job of stretching the truth to tell a funnier story or to play a joke on someone.

108. If I am embarrassed or humiliated, I get over it very quickly.

109. It is extremely difficult for me to adjust to changes in my usual way of doing things because I get so tense, tired, or worried.

110. I usually demand very good practical reasons before I am willing to change my old ways of doing things.

111. I need a lot of help from other people to train me to have good habits.
112. I think that extra-sensory perception (EPS, like telepathy or precognition) is really possible.
113. I would like to have warm and close friends with me most of the time.
114. I nearly always stay relaxed and carefree, even when nearly everyone else is fearful.
115. I find sad songs and movies pretty boring.
116. Circumstances often force me to do things against my will.
117. It is hard for me to tolerate people who are different from me.
118. I think that most things that are called miracles are just chance.
119. I would rather be kind than to get revenge when someone hurts me.
120. I often become so fascinated with what I'm doing that I get lost in the moment- like I'm detached from time and place.
121. I do not think I have a real sense of purpose for my life.
122. I try to cooperate with others as much as possible.
123. I am satisfied with my accomplishments, and have little desire to do better.
124. I often feel tense and worried in unfamiliar situations, even when others feel there is no danger at all.
125. I often follow my instincts, hunches or intuitions without thinking through all the details.
126. Other people often think that I am too independent because I won't do what they want.
127. I often feel a strong spiritual or emotional connection with all the people around me.
128. It is usually easy for me to like people who have different values from me.
129. Good habits have become "second nature" to me- they are automatic and spontaneous actions nearly all the time.
130. I don't mind the fact that other people often know more than I do about something.
131. I usually try to imagine myself "in other people's shoes", so I can really understand them.
132. Principles like fairness and honesty have little role in some aspects of my life.
133. I am better at saving money than most people.
134. Even when most people feel it is not important, I often insist on things being done in a strict and orderly way.
135. I feel very confident and sure of myself in almost all social
situations.

136. My friends find it hard to know my feelings because I seldom tell them about my private thoughts.

137. I hate to change the way I do things, even if many people tell me there is a new and better way to do it.

138. I think it is unwise to believe in things that cannot be explained scientifically.

139. I like to imagine my enemies suffering.

140. I am more energetic and tire less quickly than most people.

141. I like to pay close attention to details in everything I do.

142. I often stop what I am doing because I get worried, even when my friends tell me everything will go well.

143. I often wish I was more powerful than everyone else.

144. I usually am free to choose what I will do.

145. Often I become so involved in what I am doing that I forget where I am for a while.

146. Members of a team rarely get their fair share.

147. Most of the time I would prefer to do something risky (like hang-gliding or parachute jumping) -rather than having to stay quite and inactive for a few hours.

148. Because I so often spend too much money on impulse, it is hard for me to save money even for special plans like a vacation.

149. I don't go out of my way to please other people.

150. I am not shy with strangers at all.

151. I often give in to the wishes of friends.

152. I spend most of my time doing things that seem necessary but not really important to me.

153. I don't think that religious or ethical principles about what is right and wrong should have much influence in business decisions.

154. I often try to put aside my own judgment so that I can better understand what other people are experienced.

155. Many of my habits make it hard for me to accomplish worthwhile goals.

156. I have made real personal sacrifices in order to make the world a better place - like trying to prevent war, poverty and injustice.

157. I never worry about terrible things that might happen in the future.

158. I almost never get so excited that I lose control of myself.

159. I often give up a job if it takes much longer than I thought it would.
160. I prefer to start conversations, rather than waiting for others to talk to me.

161. Most of the time I quickly forgive anyone who does me wrong.

162. My actions are determined largely by influences outside my control.

163. I prefer to wait for someone else to take the lead in getting things done.

164. I usually respect the opinions of others.

165. I have had experiences that made my role in life so clear to me I felt very excited and happy.

166. It is fun for me to buy things for myself.

167. I believe that I have experienced extra-sensory perception myself.

168. My behavior is strongly guided by certain goals that I have set for my life.

169. It is usually foolish to promote the success of other people.

170. I often wish I could live forever.

171. I usually like to stay cool and detached from other people.

172. I am more likely to cry at a sad movie than most people.

173. I recover more quickly than most people from minor illness or stress.

174. I often break rules and regulations when I think I can get away with it.

175. I need much more practice in developing good habits before I will be able to trust myself in many tempting situations.

176. I wish other people didn’t talk as much as they do.

177. Everyone should be treated with dignity and respect, even if they seem to be unimportant or bad.

178. I like to make quick decisions so I can get on with what has to be done.

179. I usually have good luck in whatever I try to do.

180. I am usually confident that I can easily do things that most people would consider dangerous (such as driving an automobile fast on a wet or icy road).

181. I like to explore new ways to do things.

182. I enjoy saving money more than spending it on entertainment or thrills.

183. Individual rights are more important than the needs of any group.

184. I have had personal experiences in which I felt in contact with a divine and wonderful spiritual power.
185. I have had moments of great joy in which I suddenly had a clear, deep feeling of oneness with all that exists.

186. Good habits make it easier for me to do things the way I want.

187. Most people seem more resourceful than I am.

188. Other people and conditions are often to blame for my problems.

189. It gives me pleasure to help others, even if they have treated me badly.

190. I often feel like I am a part of the spiritual force on which all life depends.

191. Even when I am with friends, I prefer not to "open up" very much.

192. I usually can stay "on the go" all day without having to push myself.

193. I think about all the facts in detail before I make a decision, even when other people demand a quick decision.

194. I am not very good at talking my way out of trouble when I am caught doing something wrong.

195. I am more of a perfectionist than most people.

196. Whether something is right or wrong is just a matter of opinion.

197. I think my natural responses now are usually consistent with my principles and long-term goals.

198. I believe that all life depends on some spiritual order or power that cannot be completely explained.

199. I think I would stay confident and relaxed when meeting strangers, even if I were told they are angry at me.

200. People find it easy to come to me for help, sympathy, and warm understanding.

201. I am slower than most people to get excited about new ideas and activities.

202. I have trouble telling a lie, even when it is meant to spare someone else's feelings.

203. I don't want to be more admired than everyone else.

204. Often when I look at an ordinary thing, something wonderful happens - I get the feeling that I am seeing it fresh for the first time.

205. Most people I know look out for themselves, no matter who else gets hurt.

206. I usually feel tense and worried when I have to do something new and unfamiliar.

207. I often push myself to the point of exhaustion or try to do more
than I really can.
208. Some people think I am too stingy or tight with my money.
209. Reports of mystical experiences are probably just wishful thinking.
210. My will power is too weak to overcome very strong temptations, even if I know I will suffer as a consequence.
211. I hate to see anyone suffer.
212. I know what I want to do in my life.
213. I regularly take time to consider whether what I am doing is right or wrong.
214. Things often go wrong for me unless I am very careful.
215. If I am feeling upset, I usually feel better around friends than when left alone.
216. I don't think it is possible for one person to share feelings with someone else who hasn't had the same experience.
217. It often seems to other people like I am in another world because I am so completely unaware of things going around me.
218. I wish I were better looking than everyone else.
219. I usually stay away from social situations where I would have to meet strangers, even if I am assured that they will be friendly.
220. I love the blooming of flowers in the spring as much as seeing an old friend again.
221. I usually look at a difficult situation as a challenge or opportunity.
222. People involved with me have to learn how to do things my way.
223. Dishonesty only causes problems if you get caught.
224. I usually feel much more confident and energetic than most people, even after minor illness or stress.
225. I like to read everything when I am asked to sign any papers.
226. When nothing new is happening, I usually start looking for something that is thrilling or exciting.
ANSWER SHEET OF TCI

(Encircle the response as T or F)

NAME: 
AGE: 
SEX: M/F

FACULTY: Life Sciences/ Social Sciences/Arts/Commerce

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Reusable Booklet

of

Deo—Mohan Achievement Motivation

(n-Ach) Scale

by

Pratibha Deo (Pune)
and
Asha Mohan (Chandigarh)

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1. We are interested in measuring your attitude towards achievement in academic and other types of activities. So we are giving you this scale.

2. A separate response sheet is provided to you for marking your responses.

3. Do not put any mark on this booklet.

4. This scale consists of a number of items which are in the form of statements.

5. For every statement, the possible responses are divided into five categories which are: Always, Frequently, Sometimes, Rarely and Never. Read each statement of an item very carefully and put a cross under the category which, in your opinion, best expresses your feelings about the statement. If you feel the statement is true for you always, put a cross (x) under the column marked Always, if frequently, put a cross under Frequently, if sometimes, put a cross under Sometimes and if rarely, put a cross under Rarely and if never, put a cross under Never. In this way, you have to give your responses to all the statements. For your help, a sample item is given below:

Sample item

If I do not understand a subject or a topic, I make every effort to study hard so that I develop a good understanding of that subject/topic rather than leave it as a difficult subject/topic.

If your response after reading this item is, say, “Frequently” then put a cross under the category “Frequently” as shown below.

<table>
<thead>
<tr>
<th>Always</th>
<th>Frequently</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
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</table>

6. Please note that only one cross should be put under only one category for one statement. Do not put the cross in more than one category and do not put more than one cross under one category. Also do not put the cross in between the two categories. The cross should be clearly indicated under one category.

7. Do not leave any item blank. A response must be made to each statement.

8. This is not an ability test and there are no right or wrong responses. This is only trying to measure your feelings.
9. Do not spend too much time on one statement. There is no time-limit for completing this work, but try to work quickly and carefully and try to give the first and the best response that comes to your mind on reading each statement.

10. The results will be kept confidential and will be used only to your advantage and for research purposes only. They will never be used for any disadvantage to you. So please do not worry and try to be honest and frank in giving your responses.

11. The results, if you so desire, can be used for giving you useful guidance, and we hope the results of this study should prove valuable in improving your achievement, academic or otherwise.

12. Be sure to answer every item.

13. If you have any doubts or queries, please seek clarification before you start responding to item no. 1. Once you start giving responses, there should be no questions or queries.

14. Please do not change your response once you mark it.
1. I shall be most pleased if I have to miss the classes for some days.
2. I pay full attention to the work in the class.
3. I mind much if I reach late in the class.
4. I love to read more and more to find unknown regions of knowledge.
5. I love to have a personal library, not counting text-books.
6. I set standards for myself and then strive to achieve them.
7. I wish to specialize and become top most in the field of my liking.
8. I like to experiment and create new things and surprise people.
9. I work hard for hours together to be successful in whatever I undertake.
10. I have a tendency to find solutions of problems and puzzles other people fail at.
11. I aspire to get excellent results in all academic competitions.
12. I am ready to leave the job half done and try a new one.
13. I get nervous in the examination if one or two questions are not from the syllabus.
14. I prefer to go to a party rather than prepare for an examination next week.
15. On getting low marks, I feel disappointed and determine to work hard to do better next time.
16. I think I find my lessons meaningful and interesting.
17. While studying, my mind wanders off the lesson and I get lost in imagination.
18. I think it is better to gossip away in the canteen than to attend the classes.
19. When the teacher is teaching, I like to read stories/novels/comics or make cartoons in the class.
20. The school/college haunts me and I want to leave it at the very first opportunity.
21. It irritates me a lot if I have to stay late in the school/college for some lectures.
22. I want to go to college/university because there is plenty of opportunity to enjoy life.
23. I think studies, sports and other activities can go together.
24. I agree that the present course of my study will help making my future life a success.
25. I feel very much frustrated if I do not get a chance to compete in the field of my choice.
26. I regularly take down notes in the class and complete my assignments.
27. I plan to study carefully all the year round in an effort to get good marks in all the subjects in all the tests.
28. I believe in work first and play later.
29. I do a lot of preparation at home for the next day's work in the class.
30. I like to ask questions regarding every information given in tables and charts in the books rather than leave them as such and read further.
31. I think my teachers are competent in their work.
32. I like to create nuisance in the class and annoy the teacher.
33. I try my utmost to please my teacher through work and not through flattery.
34. My friends consider me dull and shirker.
35. It is true that my teachers think of me as a sincere and hard working student.
36. I feel hurt if others (parents, teachers and friends) criticise me and I try to improve upon my weaknesses.
37. My parents advise me to take life easy and never bother too much for studies or for future life.
38. I wish to carry my mission forward inspite of facing a lot of criticism.
39. I think of life to be an intellectual challenge.
40. I am interested in organizing the activities of a group team/class/committee.
41. I try to get associated with top most person in the field of my choice.
42. I love to have some adventure in my leisure hour.
43. I would like to watch a surgical operation being performed.
44. I like to compete in dramatics.
45. I think of dancing and music to be good hobbies for students.
46. I have a strong desire to be a champion in games/sports/athletics.
47. I have tried to get in the sports team of my school/college, to represent my team in other states or countries.
48. I believe sports develop initiative, leadership and discipline.
49. Hill climbing and mountaini2ereing are a welcome challenge I would like to take.
50. On a holiday, I prefer going for cycling, swimming or boating to sitting at home without much work.
ANSWER SHEET OF n-Ach-S

(Check/Tick √ the response that is most appropriate to you)

NAME:  
AGE:  
SEX: M/F

FACULTY: Life Sciences/ Social Sciences/Arts/Commerce

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<td>24. I</td>
<td>I am organized and careful in my work.</td>
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<td>I am able to handle multiple demands.</td>
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<td>26. D</td>
<td>I am comfortable and open to novel ideas and new informations.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>27. F</td>
<td>I pursue goals beyond what is required and expected of me.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>28. D</td>
<td>I am persistent in pursuing goals despite obstacles and setbacks.</td>
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<td>29. A</td>
<td>I have built rapport and made and maintained personal friendships with work associates.</td>
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<td>30. G</td>
<td>I am able to identify and separate my emotions.</td>
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<td>☐ ☐ ☐ ☐ ☐</td>
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<td>31. C</td>
<td>I think that feelings should be managed.</td>
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<td>32. F</td>
<td>I am aware of my weaknesses.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>I feel that I must develop myself even when my job does not demand it.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>I believe that happiness is a positive attitude.</td>
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Please fill in the following informations:
Name (Optional) ____________________________
Age ____________________________ Sex ______
Caste ____________________________ Religion ____________________________
Occupation ____________________________ Designation ____________________________
Length of Service ____________________________

Instructions
Here some statements are given and for every statement you have to express your views by making tick (●) on any one cell of the five alternatives. There is no right and wrong answer, so please give your response on all the items.

Scoring Table

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Consumable Booklet of Emotional Intelligence Scale (E.I.S.) English Version.
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<td>1.</td>
<td>E</td>
<td>I can encourage others to work even when things are not favourable.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>2.</td>
<td>C</td>
<td>People tell me that I am an inspiration for them.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<tr>
<td>3.</td>
<td>J</td>
<td>I am able to encourage people to take initiative.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>4.</td>
<td>C</td>
<td>I am able to make intelligent decisions using a healthy balance of emotions and reason.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>5.</td>
<td>E</td>
<td>I do not depend on others encouragement to do my work well.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<tr>
<td>6.</td>
<td>A</td>
<td>I can continue to do what I believe in, even under severe criticism.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>7.</td>
<td>C</td>
<td>I am able to assess the situation and then behave.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>8.</td>
<td>C</td>
<td>I can concentrate on the task at hand inspite of disturbances.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>9.</td>
<td>B</td>
<td>I pay attention to the worries and concerns of others.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>10.</td>
<td>B</td>
<td>I can listen to someone without the urge to say something.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>11.</td>
<td>E</td>
<td>I am perceived as friendly and outgoing.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>12.</td>
<td>A</td>
<td>I have my priorities clear.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>13.</td>
<td>J</td>
<td>I can handle conflicts around me.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>14.</td>
<td>D</td>
<td>I do not mix unnecessary emotions with issues at hand.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>15.</td>
<td>B</td>
<td>I try to see the other person's point of view.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>16.</td>
<td>F</td>
<td>I can stand up for my beliefs.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>17.</td>
<td>E</td>
<td>I can see the brighter side of my situation.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>18.</td>
<td>A</td>
<td>I believe in myself.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>19.</td>
<td>D</td>
<td>I am able to stay composed in both good and bad situations.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>20.</td>
<td>B</td>
<td>I am able to stay focused even under pressure.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>21.</td>
<td>H</td>
<td>I am able to maintain the standards of honesty and integrity.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>22.</td>
<td>H</td>
<td>I am able to confront unethical actions of others.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>23.</td>
<td>I</td>
<td>I am able to meet commitments and keep promises.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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